

20 DECEMBER 2011

ANNEX IV TO RESPONSES TO COMMENTS DOCUMENT (RCOM) ON ECHA'S DRAFT 3RD RECOMMENDATION FOR THE GROUP OF RECOMMENDED CHROMIUM (VI) COMPOUNDS - COMMENTS ON POTASSIUM DICHROMATE (EC NUMBER: 231-906-6)

This document provides the comments received on Potassium dichromate during the public consultation on the 3rd draft recommendation for inclusion of substances in Annex XIV of REACH which took place between 15 JUNE and 14 September 2011. ECHA's responses to these comments are provided in the above mentioned RCOM document.

N.B.: All public attachments are provided in a separate zip-file available on ECHA's website (attachments claimed confidential are not provided with the public version of this compilation of comments received).

I - GENERAL COMMENTS ON THE RECOMMENDATION TO INCLUDE THE SUBSTANCE IN ANNEX XIV, INCLUDING THE PRIORITISATION OF THE SUBSTANCE:

#	Date (Attachment provided)	Submitted by (name, Organisation/ MSCA)	Comment
1856	2011/09/15 09:29	Company Germany	



1846	2011/09/15 00:03 File attached	Aerospace Industries Association of America	Against proposal to include on Annex SIV
		Industry or trade association United States	
1838	2011/09/14 22:45	ArcelorMittal	cfr. ArcelorMittal answer to the consultation on Chromium Trioxide (EC Number 215-607-8) and letter attached.
	File attached	Company	
		Luxembourg	
1825	2011/09/14 21:33	Galion	The use of chromium trioxide in surface treatment doesn't meet the criteria of priorisation; please see the enclosed letter.
	File attached Confidential	Company France	



1787	2011/09/14 19:51	European Federation of Pharmaceutical Industries & Associations International organisation Belgium	EFPIA has noted with interest the call by ECHA of June 2011 for comments on proposals to include a number of new substances, including potassium dichromate, in Annex XIV of the REACH Regulation as substances of very high concern (SVHCs) which would require authorisation for their use. A number of these substances, including potassium dichromate, have critical uses in the research, manufacture and control of medicinal products for which there are, at this time, no practical alternatives. The details relating to potassium dichromate are set out below and EFPIA asks that, if it is to be included in Annex XIV, it be exempted from the necessity for authorisation for its use in research, development, manufacture or anlytical control of medicinal products and their ingredients and for any corresponding uses in relation to medical devices.
1738	2011/09/14 18:31 File attached	Company France	The use of Potassium dichromate in surface treatment doesn't meet the criteria of priorisation; please see the enclosed letter.
1734	2011/09/14 18:21	Association of the British Pharmaceutical Industry	
		Industry or trade association United Kingdom	



1721	2011/09/14 18:05	Indestructible Paint Ltd.	Chromium (VI) compounds are clearly classified in regulations as carcinogenic and thus meet the criteria for inclusion in the candidate list and Annex XIV. However, with proper control and adherence to good workplace safety practices, risks can be adequately controlled. In specific circumstances, the socio-economic benefits of these compounds are extensive and a case can be clearly made for their continued use.
		Company United Kingdom	The hazards associated with the hexavalent form of soluble chromium salts, such as potassium dichromate (VI), are well known to the global aerospace and defence industry. It is agreed that the uses of this substance need to be well controlled to reduce and control the risks. Improvements in guidance and practices in recent years have potentially significantly improved the control of these risks. Studies are currently ongoing which will indicate whether risks are being effectively controlled using current best practice (for example see http://www.sro.hse.gov.uk – JN4077 – Biological Monitoring in Surface Engineering – Project Number: OH36). These may also indicate whether any remaining risk is due to a lack of application of best practice or whether the best practice guidance is inadequate. The aerospace industry makes use of potassium dichromate as a key part of the corrosion protection scheme applied to airframe components. It is vital that aircraft, which can have a life cycle in excess of 40 years, have excellent corrosion protection and this substance has proved to be one of the most effective. Alternatives have been tested but found to have inferior properties. The aerospace industry is heavily regulated by EASA and FAA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. For these reasons, the aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications.
1718	2011/09/14 18:01	Company Germany	Chromium trioxide General situation Among other products, our group manufactures highly specialised opto-mechanical products that have a finished metallic surface for specialised and high precision applications. This finishing proc-ess also involves electrolytic chrome plating of brass and steel, and yellow chromating of aluminium in which chromium trioxide is used. Areas of application include the aerospace industry, the military sector, R&D and outdoor measurement instruments. Chemical surface treatment, gloss and black chrome plating In the electrolytic chrome plating process, a chromium(VI) containing preparation is used, from which the chromium is isolated in elemental, metallic and hence safe form onto the metal



surface. As a result, the product entering the supply chain in this state no longer contains chromium(VI) compounds! During the production process itself, our employees are not exposed because there is an industrial ventilation system over the electrolyte baths, and they wear protective equipment such as special respirator filters, protective gloves and protective clothing. In addition, employees are regularly instructed in the handling of hazardous materials. Before disposing of rinse water con-taining chromium(VI), we reduce it to the harmless chromium(III) oxide and transfer it to a company certified for disposal according to KrW/AbfG [Recycling and Waste Management Act].

The alternative decorative gloss chrome plating based on chromium(III) components is impossible for economic reasons. As the process is fundamentally more involved and because it is more suscep-tible to contamination, a complete and cost-intensive retrofit to our present facility would be re-quired for it to handle chromium(III) specifically. Moving to a vacuum-(physical vapour deposition), nickel- or zinc-based process would also be economically unfeasible, especially as zinc- or nickel-plated products do not meet the technical needs of the products. According to our suppliers, no alternatives to 'black chrome plating' exist in our line of production. A ban on the use of chromium trioxide would result in the closure of both electroplating branches and the subsequent loss of cus-tomer loyalty.

Chemical surface treatment, yellow chromating process of aluminum: Areas of application:

- Surface corrosion protection
- Good primer for varnishes and adhesives
- Light and temperature resistant
- Electronic components (the coating conducts electricity)
- Precision components (0.005mm thickness)

Safety conditions:

- Employees are protected throughout the entire process by wearing personal protective equipment including safety footwear, protective eyewear, gloves and special clothing.
- In addition, employees receive annual training in the safe handling of hazardous materials.

Description of the facilities:

- Closed circulatory system with a regeneration system and enclosed conditioning of rinse wa-ter.
- Regeneration of rinse water using cation and anion exchange cartridges
- There is an industrial ventilation system including a supplemental demister over all



			baths Disposal: Conditioning of the ion exchange cartridges by a certified company according to KrW/AbfG Alternatives: There is no alternative to chromating process of metal surfaces that has comparable techni-cal and qualitative properties and that meets the requirements of the above-named areas of application (e.g. bonding, corrosion resistance, resistance to physical influences, etc.). Conclusion: A ban on the use of chromium trioxide would mean our company would be compelled to close this area of surface plating. Among others, the main consequences would be as follows: Loss of workspace Substantial economic loss Loss of long-standing customer loyalty
1706	2011/09/14 17:40 File attached	Company France	The use of potassium dichromate in surface treatment doesn't meet the criteria of priorisation; please see the enclosed letter



1694	2011/09/14 17:29 File attached Confidential	Company Germany	We support the position of the Aerospace and Defence Industries of Europe (ASD)
1680	2011/09/14 17:09 File attached	Sabena technics Company France	The use of potassium dichromate in surface treatment doesn't meet the criteria of priorisation: - environmental exposition is controled by regulations (code de l'environnement - arrêté 30/06/2006) - no consumers exposed with potassium dichromate - very low exposition for automatic process
1664	2011/09/14 16:40	Council of Europe, Directorate for the Quality of Medicines and HealthCare International Organisation France	Potassium dichromate is used in the European Pharmacopoeia. The quality of medicines including their containers and raw materials may be compromised, if it is withdrawn from the market.



1645	2011/09/14 16:08 File attached Confidential	Company United Kingdom	We support the position of the Aerospace and Defence Industries of Europe (ASD)
1644	2011/09/14 16:07 File attached	CEMBUREAU - The European cement association Industry or trade association Belgium	
1636	2011/09/14 16:00	Goodrich Corporation Company United States	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even



			closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing. In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted for safety and airworthiness. Without this additional time, it is anticipated that there will be extensive applications for authorisation to continue to use potassium dichromate if it appears on Annex XIV. The level of effort that will be expended in making these applications could be better employed in sorting out the qualification and introduction of safe and effective alternatives. An additional reason for deferring the prioritisation of potassium dichromate is the need to allow sufficient time for the formation of suitable aerospace and defence consortia, involving participants from all levels of the supply chain. This is essential if comprehensive applications for Authorization are to be made.
1632	2011/09/14 15:58	Goodrich Corporation Company United States	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with



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1629	2011/09/14 15:55	Health and Environment Alliance International NGO Belgium	We support the inclusion of Potassium dichromate to Annex XIV



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1562	2011/09/14 14:32	The Boeing Company	The Boeing Company appreciates the opportunity to provide comments to ECHA's public consultation. Our company is one of the world's leading aerospace companies and the largest manufacturer of commercial jetliners and military aircraft combined. With a 43 percent share of the in-service commercial fleet in Europe, and many partners and suppliers in the region we are integral part of the European aerospace community. We have customers and suppliers in
		Company United States	are integral part of the European aerospace community. We have customers and suppliers in more than 90 countries around the world and are one of the largest U.S. exporters in terms of sales. Our extensive, international supply chain includes approximately 50 European sub-tier chemical processors located in Belgium, Czech Republic, France, Italy, Germany, Ireland, Netherlands, Poland, Portugal, Romania, Spain, Sweden, and the UK. Aircraft manufactures, operators and maintenance service providers are concerned, because over 250 subcontractors, 50 airlines and 150 repair facilities throughout Europe will be negatively impacted by the proposed regulatory action. With regard to the chromate substances proposed to be added to Annex XIV, note that some critical aerospace applications would be difficult to phase out in a short time period. These materials are unique in that they comprise part of a certificate that establishes compliance with U.S. Federal Aviation Administration (FAA) and the European Aviation Safety Agency (EASA) stringent safety requirements. They are used as part of the corrosion control system for safety critical applications. Chromates provide corrosion inhibition as well as unique wear properties when used as a plating solution on major structural elements located throughout the vehicle's airframe. Aluminum alloys used in aerospace construction are susceptible to corrosion due to significant exposure to condensation and moisture (with or without salt content) on metal surfaces – Replacement of chromate containing materials with less than equivalent substitutes could potentially increase instances of structural failure due to stress corrosion cracking, corrosion fatigue, exfoliation, and other forms of corrosion. Pitting corrosion can also lead to fatigue failures, and general corrosion may extend to the point that the metal loss affects structural properties. Given the complex geometry of aerospace construction, such corrosion may not be apparent through routine inspection and maintenance before
			twenty years and will continue until suitable replacements are developed, qualified and implemented. Many alternatives have been tested, but have not passed the performance requirements identified in the applicable specifications. Although significant research efforts are



			still ongoing, no drop-in alternatives exist today or should be expected for a majority of aerospace uses in the near future. It will likely take several substances to fulfill all of the requirements for the numerous materials and processes that currently rely on chromated materials for critical aerospace applications. Potassium Dichromate has a well known reputation as an excellent corrosion protective for aluminum components. It is currently and widely regarded as the most effective solution available for the corrosion protection of aluminum airframes. It is extremely effective because of its ability to protect areas where damage has occurred. Chromic free alternatives are available for some chromic anodizing processes, but not for hard chrome plating, conversion coatings, metal processing tank solutions for chromic acid anodizing, anodic seals, neutralizing rinses, brightening aluminum, nickel and chrome plating, phosphate treatment, black oxide coatings, deoxidizers, cleaning titanium, pickling steel and magnesium, and anodic stripping baths. These applications are critical to metal processing and the prevention of corrosion and although significant These specialty uses have no off-the-shelf alternatives available today. Corrosion protection being an essential defense mechanism for metallic components, many of the applications can be considered to be Safety Critical Applications. All such applications of chromic acid should be exempt from the requirements of Annex XIV.
1427	2011/09/14 09:52	Goodrich Control Systems Ltd Company Canada	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare



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1429	2011/09/14 09:52	Goodrich Control Systems Ltd Company United States	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.



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1430	2011/09/14 09:52	Goodrich Control Systems Itd Company United Kingdom	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing. In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1431	2011/09/14 09:52	Goodrich Control Systems GmbH Company Germany	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing. In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1423	2011/09/14 09:51	Goodrich Pump and Engine Control Company United States	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing. In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1424	2011/09/14 09:51	Goodrich Corporation Company United States	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing. In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted for safety and airworthiness. Without this additional time, it is anticipated that there will be extensive applications for authorisation to continue to use potassium dichromate if



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1418	2011/09/14 09:38	Crompton Technology Group Limited Company United Kingdom	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing. In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1419	2011/09/14 09:38	Microtechnica Srl Company United Kingdom	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing. In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1415	2011/09/14 09:37	PT Goodrich Pindad Aeronautical Systems Indonesia Company Indonesia	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing. In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted for safety and airworthiness. Without this additional time, it is anticipated that there will be extensive applications for authorisation to continue to use potassium dichromate if



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1416	2011/09/14 09:37	Goodrich Actuation Systems SAS Company France	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing. In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1417	2011/09/14 09:37	Microtecnica Srl Company Italy	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing. In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1411	2011/09/14 09:36	Goodrich Corporation Company Japan	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing. In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted for safety and airworthiness. Without this additional time, it is anticipated that there will be extensive applications for authorisation to continue to use potassium dichromate if



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1412	2011/09/14 09:36	Goodrich Actuation Systems Limited Company United Kingdom	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing. In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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2011/09/14 09:36	Goodrich Corporation Company Mexico	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing. In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1413	2011/09/14 09:35	Goodrich Corporation Company United States	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing. In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted for safety and airworthiness. Without this additional time, it is anticipated that there will be extensive applications for authorisation to continue to use potassium dichromate if



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1404	2011/09/14 09:18	Atlantic Inertial Systems Limited Company United Kingdom	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing. In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1405	2011/09/14 09:18	Rosemount Aerospace GmbH Company Germany	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing. In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1406	2011/09/14 09:18	Goodrich Aerospace Pte Ltd Company Singapore	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing. In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted for safety and airworthiness. Without this additional time, it is anticipated that there will be extensive applications for authorisation to continue to use potassium dichromate if



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1401	2011/09/14 09:16	Rosemount Aerospace SARL Company France	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing. In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1398	2011/09/14 09:15	Rosemount Aerospace Inc Company China	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing. In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1399	2011/09/14 09:15	Atlantic Inertial Systems Inc Company United States	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing. In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternatives solutions to become fully tested and accepted for safety and airworthiness. Without this additional time, it is anticipated that there will be extensive applications for authorisation to continue to use potassium dichromate if



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1402	2011/09/14 09:15	Goodrich Control Systems Limited Company France	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing. In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1403	2011/09/14 09:15	Simmonds Precision Products Inc Company United States	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing. In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted for safety and airworthiness. Without this additional time, it is anticipated that there will be extensive applications for authorisation to continue to use potassium dichromate if



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1395	2011/09/14 09:14	Rosemount Aerospace Inc Company United States	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing. In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted for safety and airworthiness. Without this additional time, it is anticipated that there will be extensive applications for authorisation to continue to use potassium dichromate if



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1396	2011/09/14 09:14	Goodrich Corporation Company United States	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.



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1400	2011/09/14 09:14	TEAC Aerospace Technologies Inc Company United States	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare



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1390	2011/09/14 08:55	Goodrich Control Systems Limited Company United Kingdom	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.



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1387	2011/09/14 08:54	Goodrich Control Systems Pte Ltd Company Australia	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing. In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1388 2011/09/14 08:54 Goodrich Aerospace Services SAS The aerospace industry is heavily regulated by CAA and EASA havi rigorous standards. Product safety is of paramount importance and performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investiga still widely used because of its superior corrosion performance for applications. In many cases, no direct safe alternatives either do exist due to the unique nature of Chromium Chemistry amongst the of higher integer oxidation states. While similar physical behaviours have been observed in other elections of corrosion protect and self-healing corrosion prevention mechanism closely related elements within the Periodic Table fall far short of the and self healing surface layers. Potassium dichromate has performed effectively in service for mor characteristics that few other surface treatment chemicals can maid oxidising power has been applied to surface processing for corrosion such surfaces for even more robust, multi-stage corrosion protection understanding of service envelopes and performance limits of othe alternatives will require a similar period of development and testin in addition, chromium VI compounds are extremely effective because where damage has occurred. For these reasons, it is essential that prioritisation be deferred for time for alternative solutions to become fully tested and accepted Without this additional time, it is anticipated that there will be extended authorisation to continue to use potassium dichromate if it appears	ted for many years but it is a broad range of exist or indeed may ever the Transition metals capable ments, none come close to a ability to provide long-term as for substrates. Even this ability to form tenacious to the tenacious to the tenacious are than half a century, with tenacious are than the protection and to prepare tons. To develop this level of the materials suggested as g. the tenacious as long as possible, to allow for safety and airworthiness. The ensive applications for



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1389	2011/09/14 08:54	Goodrich Control Systems Pte Ltd Company Singapore	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing. In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted for safety and airworthiness. Without this additional time, it is anticipated that there will be extensive applications for authorisation to continue to use potassium dichromate if i



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391	2011/09/14 08:54	Goodrich TAECO Aeronautical Systems (Xiamen) Company Ltd Company China	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing. In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted for safety and airworthiness. Without this additional time, it is anticipated that there will be extensive applications for authorisation to continue to use potassium dichromate if i



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1385	2011/09/14 08:53	Goodrich Corporation Company United States	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing. In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted for safety and airworthiness. Without this additional time, it is anticipated that there will be extensive applications for authorisation to continue to use potassium dichromate if



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1386	2011/09/14 08:53	Goodrich Corporation Company United Arab Emirates	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing. In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted for safety and airworthiness. Without this additional time, it is anticipated that there will be extensive applications for authorisation to continue to use potassium dichromate if



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1380	2011/09/14 08:38	Goodrich Aerospace Europe GmbH Company Germany	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing. In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted for safety and airworthiness. Without this additional time, it is anticipated that there will be extensive applications for authorisation to continue to use potassium dichromate if



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1382	2011/09/14 08:38	Rohr Aero Services Ltd Company United Kingdom	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing. In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.



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1375	2011/09/14 08:37	Goodrich Corporation Company United States	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with



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1378	2011/09/14 08:37	Rohr Aero Services Inc Company	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever
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While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.

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1379	2011/09/14	Rohr Inc	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely
13/3	08:37	KOIII IIIC	rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.
			Alternatives to Potassium Dichromate have actively been investigated for many years but it is
		Company	still widely used because of its superior corrosion performance for a broad range of
		United States	applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.
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1381	2011/09/14 08:37	Goodrich Aerospace Europe SAS Company France	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing. In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted for safety and airworthiness. Without this additional time, it is anticipated that there will be extensive applications for authorisation to continue to use potassium dichromate if i



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2011/09/14 08:36	Goodrich Corporation Company United States	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing. In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.



			For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted for safety and airworthiness. Without this additional time, it is anticipated that there will be extensive applications for authorisation to continue to use potassium dichromate if it appears on Annex XIV. The level of effort that will be expended in making these applications could be better employed in sorting out the qualification and introduction of safe and effective alternatives. An additional reason for deferring the prioritisation of potassium dichromate is the need to allow sufficient time for the formation of suitable aerospace and defence consortia, involving participants from all levels of the supply chain. This is essential if comprehensive applications for Authorization are to be made.
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1374	2011/09/14 08:36	Goodrich Aerospace Canada Ltd Company Canada	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with



			characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing. In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted for safety and airworthiness. Without this additional time, it is anticipated that there will be extensive applications for authorisation to continue to use potassium dichromate if it appears on Annex XIV. The level of effort that will be expended in making these applications could be better employed in sorting out the qualification and introduction of safe and effective alternatives. An additional reason for deferring the prioritisation of potassium dichromate is the need to allow sufficient time for the formation of suitable aerospace and defence consortia, involving participants from all levels of the supply chain. This is essential if comprehensive applications for Authorization are to be made. Comments on Proposed Dates If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigo
1376	2011/09/14 08:36	Goodrich Krosno Company Poland	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable



of higher integer oxidation states.

While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.

Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.

In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.

For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted for safety and airworthiness. Without this additional time, it is anticipated that there will be extensive applications for authorisation to continue to use potassium dichromate if it appears on Annex XIV. The level of effort that will be expended in making these applications could be better employed in sorting out the qualification and introduction of safe and effective alternatives.

An additional reason for deferring the prioritisation of potassium dichromate is the need to allow sufficient time for the formation of suitable aerospace and defence consortia, involving participants from all levels of the supply chain. This is essential if comprehensive applications for Authorization are to be made.

Comments on Proposed Dates

If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.



1377	2011/09/14	Goodrich	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely
	08:35	Corporation	rigorous standards. Product safety is of paramount importance and alternatives with reduced
		'	performance would be totally unacceptable.
			Alternatives to Potassium Dichromate have actively been investigated for many years but it is
			still widely used because of its superior corrosion performance for a broad range of
		Company	applications. In many cases, no direct safe alternatives either do exist or indeed may ever
		United States	exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable
			of higher integer oxidation states.
			While similar physical behaviours have been observed in other elements, none come close to
			those of chromium and particularly the transition metal chromate's ability to provide long-term
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			Potassium dichromate has performed effectively in service for more than half a century, with
			characteristics that few other surface treatment chemicals can match. Its wide general
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			such surfaces for even more robust, multi-stage corrosion protections. To develop this level of
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			alternatives will require a similar period of development and testing.
			In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.
			For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow
			time for alternative solutions to become fully tested and accepted for safety and airworthiness.
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			authorisation to continue to use potassium dichromate if it appears on Annex XIV. The level of
			effort that will be expended in making these applications could be better employed in sorting
			out the qualification and introduction of safe and effective alternatives.
			An additional reason for deferring the prioritisation of potassium dichromate is the need to
			allow sufficient time for the formation of suitable aerospace and defence consortia, involving
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			for Authorization are to be made.
			Comments on Proposed Dates
			If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in
			January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However,



			applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1319	2011/09/14 06:30	Goodrich Corporation Company United States	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Alternatives to Potassium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states. While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers. Potassium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing. In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted for safety and airworthiness. Without this additional time, it is anticipated that there will be extensive applications for authorisation to continue to use potassium dichromate if



			allow sufficient time for the formation of suitable aerospace and defence consortia, involving participants from all levels of the supply chain. This is essential if comprehensive applications for Authorization are to be made.
1228	2011/09/14 01:00	KLM Engineering & Maintenance Company Netherlands	Chromium (VI) compounds have been clearly identified as carcinogens, in particular causing lung cancer. Therefore it is acknowledged that there are no absolute safe limits for these compounds. However, in specific circumstances, the socio-economic benefits of these compounds are extensive and a case can be clearly made for their continued use. The hazards associated with the hexavalent form of soluble chromium salts, such as potassium dichromate (VI), are well known to the global aerospace and defence industry. As such the uses of this substance are and continue to be well controlled to reduce and control the risks. Improvements in guidance and practices in recent years have potentially significantly improved the control of these risks. Studies are currently ongoing which will indicate whether risks are being effectively controlled using current best practice These may also indicate whether any remaining risk is due to a lack of application of best practice or whether the best practice guidance is inadequate. KLM has conducted several occupational exposure measurements to hexavalent chromium for the above processes. Results show no exceedance of the Dutch threshold limit value of hexavalent chromium. In fact, results show levels of hexavalent chromium below the detection limit of the analyzing equipment (below 0.1 µg/m3), where the threshold limit value in the Netherlands is 0.25 mg/m3. Conclusion: the strict control measures guarantee a safe working environment for the KLM workers and there is no release to the environment of hexavalent chromium. The aerospace industry is heavily regulated by EASA and FAA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced



performance would be totally unacceptable.

General Comment 1: Consider Delaying Prioritisation

It is essential to know whether current controls are adequately addressing the risk or whether additional controls are required. For this reason, it would be prudent to await the outcome of the latest batch of studies into the health effects of chromium (VI) compounds before making a decision on whether potassium dichromate should be added to Annex XIV. If the study recommends that additional equipment is required to achieve optimum control of the risks, this may have an impact on the desire to pursue a potential authorisation request.

General Comment 2: Defer Prioritisation

Chromium (VI) compounds, of which potassium dichromate is an example, have a well known reputation as excellent corrosion protectives for aluminum components. Their use began in the 1930s and has continued to the present, giving an extensive period of experience and knowledge of their properties. They are currently and widely regarded as the most effective solutions available for the corrosion protection of aluminum airframes. They are extremely effective because of their ability to protect areas where damage has occurred.

The development of alternative solutions, which do not contain potassium dichromate, has been the subject of Research and Development activities for a number of years, in some cases 20+, and is continuing. It is exceptionally complex. The timescales for such programmes are extensive: typically it is necessary to identify a range of possible alternatives, complete initial screening tests to allow the best contenders to emerge, develop these into commercially viable solutions and then complete the qualification testing demanded by the aerospace industry. Qualification testing has to be completed against either internationally recognised performance standards or internal company standards, in order to satisfy the quality requirements of the industry.

The safety critical performance criteria that needs to be met has meant that alternatives have fallen well short. If an alternative is developed it must go through a rigorous program of testing including approvals from EASA (European Aviation Safety Agency) and FAA (Federal Aviation Administration). These are varied depending on the application and will require airworthiness testing.

For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted. Without this delay, it is anticipated that there will be extensive applications for authorisation to continue to use potassium dichromate when it appears on Annex XIV. The level of effort that will be expended in making these applications could be better employed in sorting out the qualification and introduction of alternatives. Similarly, the resources required at ECHA to deal with these



			applications could be better employed on other topics. An additional reason for deferring the prioritisation of potassium dichromate is the need to allow sufficient time for the formation of suitable consortia, involving actors from all parties concerned in the supply chain. These are essential if comprehensive applications are to be made for Authorisation. Given the complex nature of an application for Authorisation, and the likely need for negotiations involving value of existing background data and intellectual property rights, an extended period of time is required to allow consortia to be formed.
1198	2011/09/13 20:20	Safran-Group Company France	Safran is a member of ASD (European Aerospace and Defence Association) and fully support the comment which has been uploaded by our it on this substance Potassium Dichromate: 0f9af840-8691-46be-95af-62dcaad52285)
1183	2011/09/13 19:41 File attached	Company Hungary	The use of Potassium dichromatein surface treatment doesn't meet the criteria of priorisation; please see the enclosed letter
1131	2011/09/13 18:23	Agoria Industry or trade association Belgium	The prioritization of the different chromium compounds does not seem appropriate for Agoria. Their classification make these chromium compounds eligible to be prioritized but there are doubts on the claimed widespread use of these chromium compounds as well as on the exposure which has an impact on the prioritization. The exposure on the workplace is limited given the precautionary measures taken due to the toxic nature of the chromium compounds. Several elements should be taken into account such as the type of installation level, the exact number of people exposed as well as the in general low level of exposure and the lack of consumer exposure. The installations used within industry are designed to limit strongly the potential exposure of workers to the maximum. Different concepts are existing through either the use of closed full automatic installations, collective protection equipment such as the suppression of chromate vapors by a mist or by the use of adequate individual protection equipment linked to an appropriate internal organization together with all other eventual measures.



The number of workers exposed is much more limited than supposed in the annex XV document, given that in several companies the chrome unit is only a limited part of the installation and not all workers are active/exposed in it. In some companies the chrome unit is only one, yet vital, processing unit, with a limited number of staff exposed (sometimes a range of less than 10 workers potentially exposed to the chromium unit compared to 500 to 4.000 workers for the complete plant). Our estimation in Belgium is that approximately 300 workers are exposed to chromates, max. 200 in hard chrome and decorative chromium plating and max 100 in passivation with chromium VI compounds. The total employment concerned within the global supply chain, including the indirect employment is however much higher as indicated already above. Given that the process is in certain installations linked to the production of highly complex products, the socio-economic impact can be much higher. In certain cases the complete industrial installation can become obsolete if this essential production step cannot be done anymore due to a lack of authorization. Finding proper alternatives for chrome in plating, taking into account the broad technical properties of chrome in the surface protection as well as the economical viability is rather difficult as otherwise these alternatives would have already been put in practice. Chrome plating is most vulnerable since there is no authorisation required to import chrome plated parts.

The exposure level is in general lower than the data used in the Annex XV dossier. Agoria estimates, based upon some measurements and medical follow-up in companies, the general level of exposure between 0,01-0,001 mg/m3 well below the level which is in general put forward as limit value at Belgian level (0,05 mg/m3). Sometimes, the measurements of chromium in the environment is suspended given that these measurements are below the detection limit and only bio-monitoring (urine) is used as a proper follow-up of exposure. The values in the annex XV dossier, are also critically reviewed by a Fraunhofer report commissioned for ZVO (see: http://www.zvo.org/uploads/media/Chromtrioxid_SVHC__2011-09-05 Final EN.pdf)

and concludes that the quality of the data used in the report can be questioned and yet they are used to extrapolate the situation not only at German level but more broadly on an European level in order to prioritize these chrome compounds.

On the level of consumer exposure one should clarify that the final hard chrome plated product does not contain any chrome VI components given that they are all transformed during the plating process into hard chrome metal. Exposure of end consumers from hard chrome plating does therefore not exist for this surface treatment technology. An important point regarding chromates is the factor that the chromium VI is between the article and the plating which reduces the potential of exposure and the chromium VI oxides very quickly in a corrosion



process or in contact with any organic material. We therefore believe that the factor wide dispersive use for the prioritization should take into account these elements in order to create a more correct view on the prioritization needed for these substances.

In the annex XV dossier some alternatives are described but these are in our view not well documented. Important elements which are lacking are amongst others:

- The economic feasibility of the substitution linked to the factor that imported articles with chrome plating will remain a fact after the sunset date,
- The technological challenge including the economic costs for re-designing products as well as production facilities given that complete new installation have to be put in place for the alternatives,
- The technical properties of the substitution including long term behavior and certification. In different current markets, such as automotive, off-road vehicles, aeronautic applications, ... with strong, long term quality guarantees, security issues and very stringent certification obligations. This increases the technical challenges of any substitution program, In fact several worldwide research activities were conducted in the past already for the substitution of chromium without any major success. (Ecochrom, HCAT, JCAT...) Technologies which are mentioned in the annex XV file do not permit the substitution of an important part of the use for chromium six compounds for chromate passivation, chromic anodizing and chrome plating.

A first and limited overview of some typical alternatives put forward for hard chrome: Thermal spray and HVOF: These technologies are not available for deposits less than 80 microns. Thermal spray doesn't permit treating pieces with complex size and geometry. Thermal spray is only adapted for the production of single pieces and mass production is not possible. Hard chromium plating stays a surface treatment process without alternative options for at least 70% of these applications (aerospace application, mechanical, nuclear, alimentary compatibility...) and this without considering costs.

Vacuum coatings: Vacuum coatings are realized in closed containments. The thickness of deposits can't exceed 5 microns. This technology does not provide a proper corrosion protection. The time to realize deposit makes vacuum coatings for mass production economically and technically impossible. Moreover, the cost of the coatings is three times more expensive than a surface treatment realized by a wet process such as chromium plating including state of the art water and air treatment.

Zinc based alternatives: zinc coatings are offer cathodic corrosion protection which means that they dissolve themselves in order to protect pieces against corrosion. So, coating thickness is very important in order to provide the necessary corrosion protection over a given time period.



			Chromium coatings offer anodic protections. The coating isn't dissolved over the time of corrosion protection which assures a good durability of the corrosion protection of the product. Zinc based alternatives haven't the same technical characteristics than coatings made with chromium six compounds (hardness, wear resistance, coefficient of friction, anti-sticking properties) Nickel based alternatives: Electroless nickel offers interesting properties and these are probably maximally exploited. Limits are hardness (highest hardness requires heat-treatment), less anti-adhesive, risk for porosity, less suited and prohibitive costs for thickness >30 µm, slow process, outperformed by chromium in lubricated conditions (hydraulics), costly process (difficult to control and continuously changing composition), use of soluble nickel salts, Chromium III coating: chromium deposits realized with trivalent chromium are possible for decorative coatings, with low thickness (typically < 0.5 µm). It is impossible to obtain deposit with big thickness achieving the technical performance hard chromium plating. This technology needs three chromium baths and its technical implementation is much more difficult than baths with chromium six. The deposit cost is also multiplied by a factor three. Part modification: in this case there is a need to replace material such as titanium, plastic, aluminum by steel which can be heat-treated. In most cases the weight is an issue and the pieces in aeronautic must be the most lightest possible to answer the technical challenge and makes this alternative technically not possible. Moreover heat-treatment causes variation on the part's dimensions which is incompatible with the final utilization's pieces. It is important to remember that all these alternatives do not cover all the applications obtained by chromium six compounds. Many applications are not mentioned in the annex XV document. This is the case for black chromium, stripping of plastics, conversion of stainless or cadmium for whic
1124	2011/09/13 18:10	Company France	



1116	2011/09/13		General Comments on the Recommendation to Include the Substance in Annex XIV
1110	18:06		Introduction
	10.00	Industry or trade	Chromium (VI) compounds are clearly classified in regulations as carcinogenic and thus meet
		association	the criteria for inclusion in the candidate list and Annex XIV However, with proper control
		United Kingdom	and adherence to good workplace safety practices, risks can be adequately controlled. In
		Officed Kingdom	specific circumstances, the socio-economic benefits of these compounds are extensive and a
	File attached		case can be clearly made for their continued use.
	Confidential		The hazards associated with the hexavalent form of soluble chromium salts, such as potassium
	Comindential		dichromate (VI), are well known to the global aerospace and defence industry. It is agreed
			that the uses of this substance need to be well controlled to reduce and control the risks.
			Improvements in guidance and practices in recent years have potentially significantly improved
			the control of these risks. Studies are currently ongoing which will indicate whether risks are
			being effectively controlled using current best practice (for example see
			http://www.sro.hse.gov.uk – JN4077 – Biological Monitoring in Surface Engineering – Project
			Number: OH36). These may also indicate whether any remaining risk is due to a lack of
			application of best practice or whether the best practice guidance is inadequate.
			The aerospace industry makes use of potassium dichromate as a key part of the corrosion
			protection scheme applied to airframe components. It is vital that aircraft, which can have a
			life cycle in excess of 40 years, have excellent corrosion protection and this substance has
			proved to be one of the most effective. Alternatives have been tested but found to have
			inferior properties. The aerospace industry is heavily regulated by EASA and FAA having to
			conform to extremely rigorous standards. Product safety is of paramount importance and
			alternatives with reduced performance would be totally unacceptable. For these reasons, the
			aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH
			for aerospace applications.
			General Comment 1: Consider Delaying Prioritisation
			The aerospace industry requests that potassium dichromate be exempt from Annex XIV of
			REACH for aerospace applications. If this is unacceptable to ECHA, the longest possible
			timescales are requested to allow for alternatives to be identified, tested and qualified.
			It is essential to know whether current controls are adequately addressing the risk or whether
			additional controls are required. For this reason, it would be prudent to await the outcome of
			the latest batch of studies into the health effects of chromium (VI) compounds before making a
			decision on whether potassium dichromate should be added to Annex XIV. If the study
			recommends that additional equipment is required to achieve optimum control of the risks, this
			may have an impact on the desire to pursue a potential authorisation request.
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General Comment 2: Defer Prioritisation

The aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications. If this is unacceptable to ECHA, the longest possible timescales are requested to allow for alternatives to be identified, tested and qualified. Chromium (VI) compounds, of which potassium dichromate is an example, have a well known reputation as excellent corrosion protectives for aluminium components. Their use began in the 1930s and has continued to the present, giving an extensive period of experience and knowledge of their properties. They are currently and widely regarded as the most effective solutions available for the corrosion protection of aluminium airframes. They are extremely effective because of their ability to protect areas where damage has occurred.

The development of alternative solutions, which do not contain potassium dichromate, has been the subject of Research and Development activities for a number of years, in some cases 20+, and is continuing. It is exceptionally complex. The timescales for such programmes are extensive: typically it is necessary to identify a range of possible alternatives, complete initial screening tests to allow the best contenders to emerge, develop these into commercially viable solutions and then complete the qualification testing demanded by the aerospace industry. Qualification testing has to be completed against either internationally recognised performance standards or internal company standards, in order to satisfy the quality requirements of the industry.

The safety critical performance criteria that needs to be met has meant that alternatives have fallen well short. If an alternative is developed it must go through a rigorous program of testing including approvals from EASA (European Aviation Safety Agency) and FAA (Federal Aviation Administration). These are varied depending on the application and will require airworthiness testing.

For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted. Without this delay, it is anticipated that there will be extensive applications for authorisation to continue to use potassium dichromate when it appears on Annex XIV. The level of effort that will be expended in making these applications could be better employed in sorting out the qualification and introduction of alternatives. Similarly, the resources required at ECHA to deal with these applications could be better employed on other topics.

An additional reason for deferring the prioritisation of potassium dichromate is the need to allow sufficient time for the formation of suitable consortia, involving actors from all parties concerned in the supply chain. These are essential if comprehensive applications are to be made for Authorisation. Given the complex nature of an application for Authorisation, and the



			likely need for negotiations involving value of existing background data and intellectual property rights, an extended period of time is required to allow consortia to be formed.
1359	2011/09/13 18:06 File attached Confidential	Industry or trade association United Kingdom	General Comments on the Recommendation to Include the Substance in Annex XIV Introduction Chromium (VI) compounds are clearly classified in regulations as carcinogenic and thus meet the criteria for inclusion in the candidate list and Annex XIV However, with proper control and adherence to good workplace safety practices, risks can be adequately controlled. In specific circumstances, the socio-economic benefits of these compounds are extensive and a case can be clearly made for their continued use. The hazards associated with the hexavalent form of soluble chromium salts, such as potassium dichromate (VI), are well known to the global aerospace and defence industry. It is agreed that the uses of this substance need to be well controlled to reduce and control the risks. Improvements in guidance and practices in recent years have potentially significantly improved the control of these risks. Studies are currently ongoing which will indicate whether risks are being effectively controlled using current best practice (for example see http://www.sro.hse.gov.uk – JN4077 – Biological Monitoring in Surface Engineering – Project Number: OH36). These may also indicate whether any remaining risk is due to a lack of application of best practice or whether the best practice guidance is inadequate. The aerospace industry makes use of potassium dichromate as a key part of the corrosion protection scheme applied to airframe components. It is vital that aircraft, which can have a life cycle in excess of 40 years, have excellent corrosion protection and this substance has proved to be one of the most effective. Alternatives have been tested but found to have inferior properties. The aerospace industry is heavily regulated by EASA and FAA having to conform to extremely rigorous standards. Product safety is of paramount importance and



alternatives with reduced performance would be totally unacceptable. For these reasons, the aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications.

General Comment 1: Consider Delaying Prioritisation

The aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications. If this is unacceptable to ECHA, the longest possible timescales are requested to allow for alternatives to be identified, tested and qualified. It is essential to know whether current controls are adequately addressing the risk or whether additional controls are required. For this reason, it would be prudent to await the outcome of the latest batch of studies into the health effects of chromium (VI) compounds before making a decision on whether potassium dichromate should be added to Annex XIV. If the study recommends that additional equipment is required to achieve optimum control of the risks, this may have an impact on the desire to pursue a potential authorisation request. General Comment 2: Defer Prioritisation

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The safety critical performance criteria that needs to be met has meant that alternatives have fallen well short. If an alternative is developed it must go through a rigorous program of testing including approvals from EASA (European Aviation Safety Agency) and FAA (Federal Aviation



			Administration). These are varied depending on the application and will require airworthiness testing. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted. Without this delay, it is anticipated that there will be extensive applications for authorisation to continue to use potassium dichromate when it appears on Annex XIV. The level of effort that will be expended in making these applications could be better employed in sorting out the qualification and introduction of alternatives. Similarly, the resources required at ECHA to deal with these applications could be better employed on other topics. An additional reason for deferring the prioritisation of potassium dichromate is the need to allow sufficient time for the formation of suitable consortia, involving actors from all parties concerned in the supply chain. These are essential if comprehensive applications are to be made for Authorisation. Given the complex nature of an application for Authorisation, and the likely need for negotiations involving value of existing background data and intellectual property rights, an extended period of time is required to allow consortia to be formed.
1111	2011/09/13 18:04	L'ELECTROLYSE	The use of potassium dichromate in surface treatment doesn't meet the criteria of priorisation; please see the enclosed letter
	File attached		
		Company France	
1110	2011/09/13 18:03	GIFAS	
	File attached	To decade a control of	
		Industry or trade association	
		France	



1094	2011/00/12	Varieta/Maatlas 4	Chromium (VI) compounds are clearly classified in regulations as some social and thus much
1094	2011/09/13 17:50	AgustaWestland Ltd	Chromium (VI) compounds are clearly classified in regulations as carcinogenic and thus meet the criteria for inclusion in the candidate list and Annex XIV. In particular, they have been identified as causing lung cancer. Therefore it is acknowledged that there are no absolute safe limits for these compounds. However, with proper control and adherence to good workplace safety practices, risks can be adequately controlled. In specific circumstances, the socio-
		Company United Kingdom	economic benefits of these compounds are extensive and a case can be clearly made for their continued use.
		omica migaom	The hazards associated with the hexavalent form of soluble chromium salts, such as potassium
			dichromate (VI), are well known to the global aerospace and defence industry. It is agreed that the uses of this substance need to be well controlled to reduce and control the risks.
			Improvements in guidance and practices in recent years have potentially significantly improved
			the control of these risks. Studies are currently ongoing which will indicate whether risks are being effectively controlled using current best practice (for example see
			http://www.sro.hse.gov.uk – JN4077 – Biological Monitoring in Surface Engineering – Project
			Number: OH36). These may also indicate whether any remaining risk is due to a lack of
			application of best practice or whether the best practice guidance is inadequate.
			The aerospace industry makes use of potassium dichromate as a key part of the corrosion protection scheme applied to airframe components. It is vital that aircraft, which can have a
			life cycle in excess of 40 years, have excellent corrosion protection and this substance has
			proved to be one of the most effective. A number of our rotorcraft will be deployed in harsh
			environments such as marine and desert, therefore the additional corrosion protection is vital
			to protect the airframe and critical components. The need Alternatives have been tested but
			found to have inferior properties. The aerospace industry is heavily regulated by EASA and
			FAA having to conform to extremely rigorous standards. Product safety is of paramount
			importance and alternatives with reduced performance would be totally unacceptable. For
			these reasons, the aerospace industry requests that potassium dichromate be exempt from
			Annex XIV of REACH for aerospace applications.
			General Comment 1: Consider Delaying Prioritisation
			The aerospace industry requests that potassium dichromate be exempt from Annex XIV of
			REACH for aerospace applications. If this is unacceptable to ECHA, the longest possible
			timescales are requested to allow for alternatives to be identified, tested and qualified.
			It is essential to know whether current controls are adequately addressing the risk or whether
			additional controls are required. For this reason, it would be prudent to await the outcome of
			the latest batch of studies into the health effects of chromium (VI) compounds before making a
			decision on whether potassium dichromate should be added to Annex XIV. If the study



recommends that additional equipment is required to achieve optimum control of the risks, this may have an impact on the desire to pursue a potential authorisation request.

General Comment 2: Defer Prioritisation

The aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications. If this is unacceptable to ECHA, the longest possible timescales are requested to allow for alternatives to be identified, tested and qualified. Chromium (VI) compounds, of which potassium dichromate is an example, have a well known reputation as excellent corrosion protectives for aluminium components. Their use began in the 1930s and has continued to the present, giving an extensive period of experience and knowledge of their properties. They are currently and widely regarded as the most effective solutions available for the corrosion protection of aluminium airframes. They are extremely effective because of their ability to protect areas where damage has occurred. The development of alternative solutions, which do not contain potassium dichromate, has been the subject of Research and Development activities for a number of years, in some cases 20+, and is continuing. It is exceptionally complex. The timescales for such programmes are extensive: typically it is necessary to identify a range of possible alternatives, complete initial screening tests to allow the best contenders to emerge, develop these into commercially viable solutions and then complete the qualification testing demanded by the aerospace industry. Qualification testing has to be completed against either internationally recognised performance standards or internal company standards, in order to satisfy the quality requirements of the industry.

The safety critical performance criteria that needs to be met has meant that alternatives have fallen well short. If an alternative is developed it must go through a rigorous program of testing including approvals from EASA (European Aviation Safety Agency) and FAA (Federal Aviation Administration). These are varied depending on the application and will require airworthiness testing. A potential means of addressing safety / reliability concerns with a replacement substance is to introduce corrosion inspections. But many component areas are enclosed after manufacture and it is impracticable to introduce inspections without the introduction of such intrusive inspection processes which would of themselves add safety risk. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted. Without this delay, it is anticipated that there will be extensive applications for authorisation to continue to use potassium dichromate when it appears on Annex XIV. The level of effort that will be expended in making these applications could be better employed in sorting out the qualification and introduction of alternatives. Similarly, the resources required at ECHA to deal with these



			applications could be better employed on other topics. An additional reason for deferring the prioritisation of potassium dichromate is the need to allow sufficient time for the formation of suitable consortia, involving actors from all parties concerned in the supply chain. These are essential if comprehensive applications are to be made for Authorisation. Given the complex nature of an application for Authorisation, and the likely need for negotiations involving value of existing background data and intellectual property rights, an extended period of time is required to allow consortia to be formed.
1081	2011/09/13 17:28	Germany MemberState Germany	We support the ECHA proposal on prioritisation of potassium dichromate due to its CMR properties. Conclusion, taking regulatory effectiveness considerations into account, page 4: As hexavalent chromium is the toxicologically relevant species in this compound not only replacement of other hexavalent chromium compounds but also the overall addition of hexavalent chromium from different chromium VI sources should be taken into account. In this regard all hexavalent chromium compounds should be treated equally with respect to prioritisation.
1077	2011/09/13 17:20 File attached	Atelier Industriel de l'aéronautique de Clermont-Fd Company	The use of chrome IV in surface treatment doesn't meet the criteria of priorisation; please see the enclosed letter.
		France	



1074	2011/09/13 17:18 File attached	L'ELECTROLYSE Company France	The use of potassium dichromate in surface treatment doesn't meet the criteria of priorisation; please see the enclosed letter
1063	2011/09/13 17:02 File attached Confidential	Company France	Introduction Chromium (VI) compounds are clearly classified in regulations as carcinogenic and thus meet the criteria for inclusion in the candidate list and Annex XIV. In particular, they have been identified as causing lung cancer. Therefore it is acknowledged that there are no absolute safe limits for these compounds. However, with proper control and adherence to good workplace safety practices, risks can be adequately controlled. In specific circumstances, the socioeconomic benefits of these compounds are extensive and a case can be clearly made for their continued use. The hazards associated with the hexavalent form of soluble chromium salts, such as potassium dichromate (VI), are well known to the global aerospace and defence industry. It is agreed that the uses of this substance need to be well controlled to reduce and control the risks. Improvements in guidance and practices in recent years have potentially significantly improved the control of these risks. Studies are currently ongoing which will indicate whether risks are being effectively controlled using current best practice (for example see http://www.sro.hse.gov.uk – JN4077 – Biological Monitoring in Surface Engineering – Project Number: OH36). These may also indicate whether any remaining risk is due to a lack of application of best practice or whether the best practice guidance is inadequate. The aerospace industry makes use of potassium dichromate as a key part of the corrosion protection scheme applied to airframe components. It is vital that aircraft, which can have a life cycle in excess of 40 years, have excellent corrosion protection and this substance has proved to be one of the most effective. Alternatives have been tested but found to have inferior properties. The aerospace industry is heavily regulated by EASA and FAA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. For these reasons, the aerospace industry requests



REACH for aerospace applications. If this is unacceptable to ECHA, the longest possible timescales are requested to allow for alternatives to be identified, tested and qualified. It is essential to know whether current controls are adequately addressing the risk or whether additional controls are required. For this reason, it would be prudent to await the outcome of the latest batch of studies into the health effects of chromium (VI) compounds before making a decision on whether potassium dichromate should be added to Annex XIV. If the study recommends that additional equipment is required to achieve optimum control of the risks, this may have an impact on the desire to pursue a potential authorisation request. General Comment 2: Defer Prioritisation

The aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications. If this is unacceptable to ECHA, the longest possible timescales are requested to allow for alternatives to be identified, tested and qualified. Chromium (VI) compounds, of which potassium dichromate is an example, have a well known reputation as excellent corrosion protectives for aluminium components. Their use began in the 1930s and has continued to the present, giving an extensive period of experience and knowledge of their properties. They are currently and widely regarded as the most effective solutions available for the corrosion protection of aluminium airframes. They are extremely effective because of their ability to protect areas where damage has occurred. The development of alternative solutions, which do not contain potassium dichromate, has

The development of alternative solutions, which do not contain potassium dichromate, has been the subject of Research and Development activities for a number of years, in some cases 20+, and is continuing. It is exceptionally complex. The timescales for such programmes are extensive: typically it is necessary to identify a range of possible alternatives, complete initial screening tests to allow the best contenders to emerge, develop these into commercially viable solutions and then complete the qualification testing demanded by the aerospace industry. Qualification testing has to be completed against either internationally recognised performance standards or internal company standards, in order to satisfy the quality requirements of the industry.

The safety critical performance criteria that needs to be met has meant that alternatives have fallen well short. If an alternative is developed it must go through a rigorous program of testing including approvals from EASA (European Aviation Safety Agency) and FAA (Federal Aviation Administration). These are varied depending on the application and will require airworthiness testing.

For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted. Without this delay, it is anticipated that there will be extensive applications for authorisation to continue to use



			potassium dichromate when it appears on Annex XIV. The level of effort that will be expended in making these applications could be better employed in sorting out the qualification and introduction of alternatives. Similarly, the resources required at ECHA to deal with these applications could be better employed on other topics. An additional reason for deferring the prioritisation of potassium dichromate is the need to allow sufficient time for the formation of suitable consortia, involving actors from all parties concerned in the supply chain. These are essential if comprehensive applications are to be made for Authorisation. Given the complex nature of an application for Authorisation, and the likely need for negotiations involving value of existing background data and intellectual property rights, an extended period of time is required to allow consortia to be formed.
1036	2011/09/13 16:34	Company Germany	Chromium (VI) compounds are clearly classified in regulations as carcinogenic and thus meet the criteria for inclusion in the candidate list and Annex XIV. In particular, they have been identified as causing lung cancer. Therefore it is acknowledged that there are no absolute safe limits for these compounds. However, with proper control and adherence to good workplace safety practices, risks can be adequately controlled. In specific circumstances, the socioeconomic benefits of these compounds are extensive and a case can be clearly made for their continued use. The hazards associated with the hexavalent form of soluble chromium salts, such as potassium dichromate (VI), are well known to the global aerospace and defence industry. It is agreed that the uses of this substance need to be well controlled to reduce and control the risks. Improvements in guidance and practices in recent years have potentially significantly improved the control of these risks. Studies are currently ongoing which will indicate whether risks are being effectively controlled using current best practice (for example see http://www.sro.hse.gov.uk – JN4077 – Biological Monitoring in Surface Engineering – Project Number: OH36). These may also indicate whether any remaining risk is due to a lack of application of best practice or whether the best practice guidance is inadequate. The aerospace industry makes use of potassium dichromate as a key part of the corrosion protection scheme applied to airframe components. It is vital that aircraft, which can have a life cycle in excess of 40 years, have excellent corrosion protection and this substance has proved to be one of the most effective. Alternatives have been tested but found to have inferior properties. The aerospace industry is heavily regulated by EASA and FAA having to conform to extremely rigorous standards. Product safety is of paramount importance and



alternatives with reduced performance would be totally unacceptable. For these reasons, the aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications.

General Comment 1: Consider Delaying Prioritisation

The aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications. If this is unacceptable to ECHA, the longest possible timescales are requested to allow for alternatives to be identified, tested and qualified. It is essential to know whether current controls are adequately addressing the risk or whether additional controls are required. For this reason, it would be prudent to await the outcome of the latest batch of studies into the health effects of chromium (VI) compounds before making a decision on whether potassium dichromate should be added to Annex XIV. If the study recommends that additional equipment is required to achieve optimum control of the risks, this may have an impact on the desire to pursue a potential authorisation request. General Comment 2: Defer Prioritisation

The aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications. If this is unacceptable to ECHA, the longest possible timescales are requested to allow for alternatives to be identified, tested and qualified. Chromium (VI) compounds, of which potassium dichromate is an example, have a well known reputation as excellent corrosion protectives for aluminium components. Their use began in the 1930s and has continued to the present, giving an extensive period of experience and

knowledge of their properties. They are currently and widely regarded as the most effective solutions available for the corrosion protection of aluminium airframes. They are extremely effective because of their ability to protect areas where damage has occurred.

The development of alternative solutions, which do not contain potassium dichromate, has been the subject of Research and Development activities for a number of years, in some cases 20+, and is continuing. It is exceptionally complex. The timescales for such programmes are extensive: typically it is necessary to identify a range of possible alternatives, complete initial screening tests to allow the best contenders to emerge, develop these into commercially viable solutions and then complete the qualification testing demanded by the aerospace industry. Qualification testing has to be completed against either internationally recognised performance standards or internal company standards, in order to satisfy the quality requirements of the industry.

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			Administration). These are varied depending on the application and will require airworthiness
			testing.
			For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow
			time for alternative solutions to become fully tested and accepted. Without this delay, it is
			anticipated that there will be extensive applications for authorisation to continue to use
			potassium dichromate when it appears on Annex XIV. The level of effort that will be expended
			in making these applications could be better employed in sorting out the qualification and
			introduction of alternatives. Similarly, the resources required at ECHA to deal with these
			applications could be better employed on other topics.
			An additional reason for deferring the prioritisation of potassium dichromate is the need to
			allow sufficient time for the formation of suitable consortia, involving actors from all parties
			concerned in the supply chain. These are essential if comprehensive applications are to be
			made for Authorisation. Given the complex nature of an application for Authorisation, and the
			likely need for negotiations involving value of existing background data and intellectual
			property rights, an extended period of time is required to allow consortia to be formed.
1010	2011/09/13	Aerospace and	Chromium (VI) compounds are clearly classified in regulations as carcinogenic and thus meet
	15:48	Defence	the criteria for inclusion in the candidate list and Annex XIV. In particular, they have been
		Industries of	identified as causing lung cancer. Therefore it is acknowledged that there are no established
	File attached	Europe	safe limits for these compounds. However, with proper control and adherence to good
			workplace safety practices, risks can be adequately controlled. In specific circumstances, the
			socio-economic benefits of these compounds are extensive and a case can be clearly made for
			their continued use.
		Industry or trade	The hazards associated with the hexavalent form of soluble chromium salts, such as potassium
		association	dichromate (VI), are well known to the global aerospace and defence industry. It is agreed
		Belgium	that the uses of this substance need to be well controlled to reduce and control the risks.
		Deigiani	Improvements in guidance and practices in recent years have potentially significantly improved
			the control of these risks. Studies are currently ongoing which will indicate whether risks are
			being effectively controlled using current best practice (for example see
			http://www.sro.hse.gov.uk – JN4077 – Biological Monitoring in Surface Engineering – Project
			Number: OH36). These may also indicate whether any remaining risk is due to a lack of
			application of best practice or whether the best practice guidance is inadequate.
			The aerospace industry makes use of potassium dichromate as a key part of the corrosion
			protection scheme applied to airframe components. It is vital that aircraft, which can have a
			life cycle in excess of 40 years, have excellent corrosion protection and this substance has
			proved to be one of the most effective. Alternatives have been tested but found to have



inferior properties. The aerospace industry is heavily regulated by EASA and FAA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. For these reasons, the aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications.

General Comment 1: Consider Delaying Prioritisation

The aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications. If this is unacceptable to ECHA, the longest possible timescales are requested to allow for alternatives to be identified, tested and qualified. It is essential to know whether current controls are adequately addressing the risk or whether additional controls are required. For this reason, it would be prudent to await the outcome of the latest batch of studies into the health effects of chromium (VI) compounds before making a decision on whether potassium dichromate should be added to Annex XIV. If the study recommends that additional equipment is required to achieve optimum control of the risks, this may have an impact on the desire to pursue a potential authorisation request.

General Comment 2: Defer Prioritisation

The aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications. If this is unacceptable to ECHA, the longest possible timescales are requested to allow for alternatives to be identified, tested and qualified. Chromium (VI) compounds, of which potassium dichromate is an example, have a well known reputation as excellent corrosion protectives for aluminium components. Their use began in the 1930s and has continued to the present, giving an extensive period of experience and knowledge of their properties. They are currently and widely regarded as the most effective solutions available for the corrosion protection of aluminium airframes. They are extremely effective because of their ability to protect areas where damage has occurred.

The development of alternative solutions, which do not contain potassium dichromate, has been the subject of Research and Development activities for a number of years, in some cases 20+, and is continuing. It is exceptionally complex. The timescales for such programmes are extensive: typically it is necessary to identify a range of possible alternatives, complete initial screening tests to allow the best contenders to emerge, develop these into commercially viable solutions and then complete the qualification testing demanded by the aerospace industry. Qualification testing has to be completed against either internationally recognised performance standards or internal company standards, in order to satisfy the quality requirements of the industry.

The safety critical performance criteria that needs to be met has meant that alternatives have



			fallen well short. If an alternative is developed it must go through a rigorous program of testing including approvals from EASA (European Aviation Safety Agency) and FAA (Federal Aviation Administration). These are varied depending on the application and will require airworthiness testing. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted. Without this delay, it is anticipated that there will be extensive applications for authorisation to continue to use potassium dichromate when it appears on Annex XIV. The level of effort that will be expended in making these applications could be better employed in sorting out the qualification and introduction of alternatives. Similarly, the resources required at ECHA to deal with these applications could be better employed on other topics. An additional reason for deferring the prioritisation of potassium dichromate is the need to allow sufficient time for the formation of suitable consortia, involving actors from all parties concerned in the supply chain. These are essential if comprehensive applications are to be made for Authorisation. Given the complex nature of an application for Authorisation, and the likely need for negotiations involving value of existing background data and intellectual property rights, an extended period of time is required to allow consortia to be formed.
1011	2011/09/13 15:48 File attached	UITS Trade Union France	The use of potassium bichromate in surface treatment doesn't meet the criteria of priorisation because of: - low tonnage of these substance used in surface treatment - Environnemental and workers exposition controled by regulations
985	2011/09/13 14:53	Sweden MemberState Sweden	We support the prioritisation of potassium dichromate for inclusion in Annex XIV even though the scoring approach results in low priority. As chromium (VI) compounds have partially the same uses and could be replaced by each other a grouping approach is warranted.



975	2011/09/13 14:43	Company France	This substance is used according to AFNOR NF T90-101 and ISO 15705/2002 for measure of chemical oxygen demand.
947	2011/09/13 14:01	Lufthansa Technik Aktiengesellschaf t Company Germany	The primary use of sodium dichromate in aerospace applications is to contribute to the corrosion protection scheme of the aircraft. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV. The aerospace industry is heavily regulated by EASA having to conform to extremely rigorous certification and safety standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. Consider Delaying Prioritisation It is essential to know whether current controls are adequately addressing the risk or whether additional controls are required. For this reason, it would be prudent to await the outcome of the latest batch of studies into the health effects of chromium (VI) compounds before making a decision on whether potassium dichromate should be added to Annex XIV. If the study recommends that additional equipment is required to achieve optimum control of the risks, this may have an impact on the desire to pursue a potential authorisation request. Defer Prioritisation Chromium (VI) compounds, of which potassium dichromate is an example, have a well known reputation as excellent corrosion protectives for aluminium components. Their use began in the 1930s and has continued to the present, giving an extensive period of experience and knowledge of their properties. They are currently and widely regarded as the most effective solutions available for the corrosion protection of aluminium airframes. They are extremely effective because of their ability to protect areas where damage has occurred. The development of alternative solutions, which do not contain potassium dic



			screening tests to allow the best contenders to emerge, develop these into commercially viable solutions and then complete the qualification testing demanded by the aerospace industry. Qualification testing has to be completed against either internationally recognised performance standards or internal company standards, in order to satisfy the quality requirements of the industry. The safety critical performance criteria that needs to be met has meant that alternatives have fallen well short. If an alternative is developed it must go through a rigorous program of testing including approvals from EASA (European Aviation Safety Agency) and FAA (Federal Aviation Administration). These are varied depending on the application and will require airworthiness testing. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted. Without this delay, it is anticipated that there will be extensive applications for authorisation to continue to use potassium dichromate when it appears on Annex XIV. The level of effort that will be expended in making these applications could be better employed in sorting out the qualification and introduction of alternatives. Similarly, the resources required at ECHA to deal with these applications could be better employed on other topics. An additional reason for deferring the prioritisation of potassium dichromate is the need to allow sufficient time for the formation of suitable consortia, involving actors from all parties concerned in the supply chain. These are essential if comprehensive applications are to be made for Authorisation. Given the complex nature of an application for Authorisation, and the likely need for negotiations involving value of existing background data and intellectual property rights, an extended period of time is required to allow consortia to be formed.
942	2011/09/13 13:29	CHROMALU	The use of chromium trioxide in surface treatment doesn't meet the criteria of priorisation; please see the enclosed letter
	File attached	Company France	



937	2011/09/13 13:22	United Kingdom MemberState	Based on the prioritisation criteria and the possibility of significant workplace exposure we agree with the proposal to recommend the following substances for inclusion in Annex XIV. Chromium Trioxide
		United Kingdom	Acids generated from Chromium Trioxide and there oligomers. Sodium Dichromate As there is the possibility of substitution to replace other hexavalent chromium compounds, based on the prioritisation criteria and the possibility of significant workplace exposure we agree with the proposal to recommend the following substances for inclusion in Annex XIV. Ammonium Dichromate
			Sodium Chromate Potassium Dichromate Potassium Chromate
911	2011/09/13 12:10	The Tintometer Ltd.	Use of potassium dichromate for analysis purposes should be exempt
		Company United Kingdom	
895	2011/09/13 11:49	European Aviation Safety Agency	
		European Institution Germany	
894	2011/09/13 11:48	AIA-CP	The use of chromium trioxide in surface treatment doesn't meet the criteria of priorisation; please see the enclosed letter
	File attached	Company France	



852	2011/09/12 19:32 File attached	DALIC Company France	The use of potassium dichromate in our surface treatment doesn't meet the criteria of prioritization: - Very low exposition for local sealing due to the short time of application (less than 60 minutes) and to the use of controlled conditions (ventilation, air extractors) - Very occasionally/ few employee exposed - No consumer's exposure with the dangerous substance. - Environnemental exposition controlled by regulations.
835	2011/09/12 18:02 File attached	Company United Kingdom	Introduction Chromium (VI) compounds are clearly classified in regulations as carcinogenic and thus meet the criteria for inclusion in the candidate list and Annex XIV. In particular, they have been identified as causing lung cancer. Therefore it is acknowledged that there are no absolute safe limits for these compounds. However, with proper control and adherence to good workplace safety practices, risks can be adequately controlled. In specific circumstances, the socioeconomic benefits of these compounds are extensive and a case can be clearly made for their continued use. The hazards associated with the hexavalent form of soluble chromium salts, such as potassium dichromate (VI), are well known to the global aerospace and defence industry. It is agreed that the uses of this substance need to be well controlled to reduce and control the risks. Improvements in guidance and practices in recent years have potentially significantly improved the control of these risks. Studies are currently ongoing which will indicate whether risks are being effectively controlled using current best practice (for example see http://www.sro.hse.gov.uk – JN4077 – Biological Monitoring in Surface Engineering – Project Number: OH36). These may also indicate whether any remaining risk is due to a lack of application of best practice or whether the best practice guidance is inadequate. The aerospace industry makes use of potassium dichromate as a key part of the corrosion protection scheme applied to airframe components. It is vital that aircraft, which can have a life cycle in excess of 40 years, have excellent corrosion protection and this substance has proved to be one of the most effective. Alternatives have been tested but found to have



inferior properties. The aerospace industry is heavily regulated by EASA and FAA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. For these reasons, the aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications.

General Comment 1: Consider Delaying Prioritisation

The aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications. If this is unacceptable to ECHA, the longest possible timescales are requested to allow for alternatives to be identified, tested and qualified. It is essential to know whether current controls are adequately addressing the risk or whether additional controls are required. For this reason, it would be prudent to await the outcome of the latest batch of studies into the health effects of chromium (VI) compounds before making a decision on whether potassium dichromate should be added to Annex XIV. If the study recommends that additional equipment is required to achieve optimum control of the risks, this may have an impact on the desire to pursue a potential authorisation request.

General Comment 2: Defer Prioritisation

The aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications. If this is unacceptable to ECHA, the longest possible timescales are requested to allow for alternatives to be identified, tested and qualified. Chromium (VI) compounds, of which potassium dichromate is an example, have a well known reputation as excellent corrosion protectives for aluminium components. Their use began in the 1930s and has continued to the present, giving an extensive period of experience and knowledge of their properties. They are currently and widely regarded as the most effective solutions available for the corrosion protection of aluminium airframes. They are extremely effective because of their ability to protect areas where damage has occurred.

The development of alternative solutions, which do not contain potassium dichromate, has been the subject of Research and Development activities for a number of years, in some cases 20+, and is continuing. It is exceptionally complex. The timescales for such programmes are extensive: typically it is necessary to identify a range of possible alternatives, complete initial screening tests to allow the best contenders to emerge, develop these into commercially viable solutions and then complete the qualification testing demanded by the aerospace industry. Qualification testing has to be completed against either internationally recognised performance standards or internal company standards, in order to satisfy the quality requirements of the industry.

The safety critical performance criteria that needs to be met has meant that alternatives have



771	2011/09/12 14:42	Company	fallen well short. If an alternative is developed it must go through a rigorous program of testing including approvals from EASA (European Aviation Safety Agency) and FAA (Federal Aviation Administration). These are varied depending on the application and will require airworthiness testing. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted. Without this delay, it is anticipated that there will be extensive applications for authorisation to continue to use potassium dichromate when it appears on Annex XIV. The level of effort that will be expended in making these applications could be better employed in sorting out the qualification and introduction of alternatives. Similarly, the resources required at ECHA to deal with these applications could be better employed on other topics. An additional reason for deferring the prioritisation of potassium dichromate is the need to allow sufficient time for the formation of suitable consortia, involving actors from all parties concerned in the supply chain. These are essential if comprehensive applications are to be made for Authorisation. Given the complex nature of an application for Authorisation, and the likely need for negotiations involving value of existing background data and intellectual property rights, an extended period of time is required to allow consortia to be formed.
746	2011/00/12	France	
746	2011/09/12 11:26	Individual Hungary	



697	2011/09/09 15:51 File attached	Company France	The use of chromium trioxide in surface treatment doesn't meet the criteria of priorisation; please see enclosed letter.
666	2011/09/09 12:23	Company Germany	The criteria for prioritization of substances for inclusion into Annex XIV are listed in Art. 58 (3): a) PBT or vPvB properties, or b) wide dispersive use, or c) high volumes. None of these criteria applies to potassium dichromate. As mentioned in the background document, the volume of potassium dichromate manufactured in the EU is quite low and the uses of the substance are not considered as wide dispersive. Nevertheless, we understand the need for the authorisation of potassium dichromate (regulatory effectiveness) to prevent the switch from sodium dichromate, which is fulfilling the criteria of Art. 58 (3), to potassium dichromate for some uses. However, this should not lead to authorization for uses of potassium dichromate which are not related to this regulatory effectiveness and which would not have been in focus of authorization based solely on the criteria of Art. 58 (3). Potassium dichromate is an important substance for scientific R&D, which is done in the pharmaceutical industry, in laboratories of waste water treatment plants, and in routine analytics. It is actually not possible to replace potassium dichromate in these applications.



664	2011/09/09 12:16		The criteria for prioritization of substances for inclusion into Annex XIV are listed in Art. 58 (3): a) PBT or vPvB properties, or
		Company	b) wide dispersive use, or
	File attached	Germany	c) high volumes. None of these criteria applies to potassium dichromate. As mentioned in the background document, the volume of potassium dichromate manufactured in the EU is quite low and the uses of the substance are not considered as wide dispersive. Nevertheless, we understand the need for the authorisation of potassium dichromate (regulatory effectiveness) to prevent the switch from sodium dichromate, which is fulfilling the criteria of Art. 58 (3), to potassium dichromate for some uses. However, this should not lead to authorization for uses of potassium dichromate which are not related to this regulatory effectiveness and which would not have been in focus of authorization based solely on the criteria of Art. 58 (3). Potassium dichromate is an important substance for scientific R&D, which is done in the pharmaceutical industry, in laboratories of waste water treatment plants, and in routine analytics. It is actually not possible to replace potassium dichromate in these applications.
663	2011/09/09 12:06	Company	The criteria for prioritization of substances for inclusion into Annex XIV are listed in Art. 58 (3): a) PBT or vPvB properties, or b) wide dispersive use, or
	File attached	Germany	c) high volumes.
		Gomany	None of these criteria applies to potassium dichromate. As mentioned in the background document, the volume of potassium dichromate manufactured in the EU is quite low and the uses of the substance are not considered as wide dispersive. Nevertheless, we understand the need for the authorisation of potassium dichromate (regulatory effectiveness) to prevent the switch from sodium dichromate, which is fulfilling the criteria of Art. 58 (3), to potassium dichromate for some uses. However, this should not lead to authorization for uses of potassium dichromate which are not related to this regulatory effectiveness and which would not have been in focus of authorization based solely on the criteria of Art. 58 (3). Potassium dichromate is an important substance for scientific R&D, which is done in the pharmaceutical industry, in laboratories of waste water treatment plants, and in routine analytics. It is actually not possible to replace potassium dichromate in these applications.



656	2011/09/09	Hach Lange	Potassium dichromate is a compound that is required for the analysis of COD (chemical oxygen
050	11:38	GmbH	demand, determination of oxidisable fractions). In a sulphuric acid solution, the organic
	11.50	GIIIBII	substances in water reduce the dichromate ion (Cr2072-) to Cr3+ ions.
	File attached		For laboratory and field analyses, cuvette tests exist in which the reagents are provided and
	i ile attacheu		ready for use. In many countries, these cuvette tests have been accepted as an alternative to
		Company	the norm methods. Many laboratories have been accredited for the implementation of this
		Company	method.
		Germany	
			The advantage of the cuvette test is that the risk of contamination by the noxious substances,
			and thus also with the potassium dichromate, is low for the user. It is effectively a closed
			system, since the user only has to add the water sample once. After this, the cuvette remains
			sealed for the rest of the analysis procedure (decomposition, evaluation). Accordingly, the risk
			of coming into contact with the reagent is very low. As the equipment producer, we assume
			responsibility for disposal of the cuvettes after they have been used. The used tests are
			collected from all over Europe and returned to the HACH LANGE environment centre, where
			they are processed in accordance with the applicable regulations. The metal components, silver
			and mercury, are separated by electrolysis. The residual dichromates are reduced to trivalent
			chromium in acid and then enter the resource recycling cycle. In 2009, the method was
			recognised with awards including the German Sustainability Award. We would like to invite you
			to visit our environment centre and see it for yourselves.
			Compared with the conventional reference procedures, the cuvette test needs 90% less
			pollutants, and a correspondingly smaller quantity of potassium dichromate.
			There are currently no procedures for determining oxidisable substances except determination
			by potassium dichromate. The entire waste water treatment programme is controlled on the
			basis of COD. COD determination is the central, indispensable component of waste water
			treatment throughout Europe. For the reasons outlined above, it is not possible to issue a
			blanket prohibition of the use of potassium dichromate while there are no legal alternatives.
			Therefore, it is essential to exempt the use of potassium dichromate for "analysis purposes"
			respective "laboratory uses" from the requirement for approval, or it should be classified as an
			approved use.
			The scoring approach of the Potassium dichromate gives a low priority for the inclusion in
			Annex XIV. The reason to prevent a replacement from other hexavalent chromium compounds
			with Potassium dichromate, leads serious problems in the analytical sector.
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607	2011/09/07 19:08 File attached Confidential	Individual France	We highlight our full commitment to comply with REACh requirements, aware of its responsibilities in protecting health and the environment. But as the elimination of theses substances requires a tremendous R&D and manufacturing effort. So we cannot identify and qualify replacement chemical products that contain this chromate and other chromates in the timescale likely to be imposed by the authorisation process.
604	2011/09/07 18:08 File attached	Individual France	The use of chromium trioxide in surface treatment doesn't meet the criteria of priorisation Very low exposition for automatic process No consumers exposure with plating chromium, plastics stripping Environnemental exposition controled regulations
597	2011/09/07 14:59	Company Germany	Potassium dichromate is a compound required in the analysis of COD (chemical oxygen demand, determination of oxidizable parts). The COD is used all over Europe as a monitoring parameter in wastewater treatment and control. It is a standard parameter and firmly established Europe-wide in many legal regulations / directives. Appropriate methods have been established as DIN standards (DIN 38409 H41-44) and EN-ISO-standards (EN ISO 15705) for the determination of the parameter. During the determination process, the oxidizable parts of the water are oxidized with potassium dichromate. The concentration of the parts in the water is established on the basis of the change of colour. COD serves for the storage and dimensioning of communal sewage treatment plants and industrial wastewater treatment plants and is required by law. EC Directive 91/271 describes the requirements and criteria regarding the discharge of communal wastewater. In Appendix I of the Directive, the corresponding concentration / limit value for the COD parameter is established. The main part of German water legislation is based on the German Water Resources Act



559	2011/08/29 14:16	Individual Germany	dichromate. It is a virtually closed system, as the user must only once add a sample. After this, the tube remains closed for the rest of the analysis process (outcome, evaluation). Hence, the risk of contact with the reagent is extremely low. Disposal of the fully reacted tubes is assumed by the manufacturer. The tube test requires 90% less harmful ingredients then conventional reference methods and thus also less potassium dichromate. Currently there is no alternative method for the establishment of oxidizable substances other than establishment with potassium dichromate. The entire wastewater treatment is controlled via COD. COD determination is the central and therefore indispensable element in wastewater treatment all over Europe. A ban of potassium dichromate is not possible here as long as there are no legal alternatives. This is why we propose that the use of potassium dichromate for "analysis purposes" should be exempt from the approval obligation or be classified as approved for said use.
			(WHG). The WHG contains provisions regarding the protection and use of surface waters and groundwater. The Water Resources Act is implemented in the German Wastewater Regulation (AbwV). The Wastewater Regulation controls the minimum requirements to be determined for the permits to discharge wastewater into waters. Furthermore, it substantiates the analysis and measuring procedure. The establishment of the COD is a constituent part of the German Wastewater Regulation. In addition, the German Wastewater Levy Act covers the charges for the discharge of wastewater (sewage, rainwater) into waters. The amount of wastewater levy is calculated in accordance with § 3 par. 1 Wastewater Levy Act depending on the harmfulness of the wastewater. In the Appendix to §3, COD is defined as the dimensioning parameter. In other countries, EC Directive EG 91/271 has been integrated into the corresponding national legislation. There are tube tests for laboratory and on-site analysis, in which the reagents are ready for use. In many countries, the tube tests are accepted as an alternative to standard methods. A large number of laboratories are accredited with this method. The advantage of the tube test is the low risk of contamination of the user with potassium



552	2011/08/24 14:10	WWF European Policy Office	WWF supports the prioritisation for inclusion in Annex XIV due to the fact that it could be used to replace other hexavalent chromium compounds.
		International NGO Belgium	
529	2011/08/11 17:04	MACHEREY- NAGEL GmbH & Co.KG	
		Company Germany	
528	2011/08/11 12:57 File attached	Company Germany	It is absolutely necessary to have Potassium di-chromate in application COD excluded from the ban of hazardous substances.
525	2011/08/08 15:22	Company United Kingdom	



473	2011/07/05 18:06 File attached Confidential	Company United Kingdom	The Aerosapce Industry depends on products containing Potassium Dichromate. This substance, as part of a mixture, is used for surface treatments - specifically electrical bonding. It concerns us greatly that this substance is being considered for Annex XIV at a time when the industry is increasing the technology around composite aircraft structures which depends on it for electrical bonding air safety requirements.
470	2011/06/15 17:10	Company Germany	



II - TRANSITIONAL ARRANGEMENTS. COMMENTS ON THE PROPOSED DATES:

#	Date (Attachment provided)	Submitted by (name, Organisation/MSCA)	Comment
1846	2011/09/15 00:03 File attached	Aerospace Industries Association of America Industry or trade association United States	Against the dates proposed.
1838	2011/09/14 22:45 File attached	ArcelorMittal Company Luxembourg	cfr. ArcelorMittal answer to the consultation on Chromium Trioxide (EC Number 215-607-8) and letter attached.



1825	2011/09/14 21:33 File attached Confidential	Galion Company France	We need an extension of the deadlines; please see the enclosed letter.
1738	2011/09/14 18:31 File attached	Company France	We need an extension of the deadlines; please see the enclosed letter.
1721	2011/09/14 18:05	Indestructible Paint Ltd. Company United Kingdom	The aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications. If this is unacceptable to ECHA, the aerospace industry requests the longest possible timescale to identify, test and qualify alternative substances capable of meeting the demanding corrosion protection requirements of the industry. If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 3 years later, in January 2016. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2014 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is essential for all concerned. Another major reason for requesting an extension to the "Sunset date" is the complexity of the supply chain that is typically present within the aerospace industry. It has been estimated that there are up to 8 levels in the supply chain and complex sub-tier supply bases, which leads to



			the possibility of hundreds of companies being involved. All of these would have to be involved and managing this is a key requirement for the authorisation process. The time and effort involved would be substantial. One additional point needs to be considered: the tonnage of potassium dichromate which is used by the Aerospace & Defence Industry (total, including all its supply-chain) is very low (greatly below 1t/year for each entity, and an estimate of < 20t/year for all our industry), so low that the consortium in charge of potassium dichromate registration dossier did not present a dossier for surface treatment. Our industry has been obliged to negotiate directly with its suppliers so that a registration dossier is deposited. A consequence of this situation is that no upstream supplier will push the Authorisation process, and our industry, as downstream user will have to establish a consortium, together with its surface treatment suppliers (>500), in order to prepare applications for authorisation. In particular we expect a very long and complex convergence process on substitution readiness assessment, amplified by the great number of actors, with different level of stakes. In order to organize this process we need an application date increased by 4 years compared to the average 2.5 years observed in the first Annex XIV issue.
1706	2011/09/14 17:40 File attached	Company France	We need an extension of the deadlines; please see the enclosed letter



1694	2011/09/14 17:29 File attached Confidential	Company Germany	We support the position of the Aerospace and Defence Industries of Europe (ASD)
1680	2011/09/14 17:09 File attached	Sabena technics Company France	we need an extension of the deadline (30 months instead of 18 months as mentionned in the recommndation). Please see the enclosed letter
1645	2011/09/14 16:08 File attached Confidential	Company United Kingdom	We support the position of the Aerospace and Defence Industries of Europe (ASD)



1636	2011/09/14 16:00	Goodrich Corporation Company United States	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1632	2011/09/14 15:58	Goodrich Corporation Company United States	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1562	2011/09/14 14:32	The Boeing Company Company United States	Due to the safety critical performance criteria that need to be met by any possible future alternatives, it is essential that prioritization be deferred to allow time for alternative solutions to become fully tested, qualified and implemented. This would allow companies to focus their efforts on replacements rather than authorization strategies.
1427	2011/09/14 09:52	Goodrich Control Systems Ltd Company Canada	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative



			substances.
1429	2011/09/14 09:52	Goodrich Control Systems Ltd Company United States	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1430	2011/09/14 09:52	Goodrich Control Systems Itd Company United Kingdom	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1431	2011/09/14 09:52	Goodrich Control Systems GmbH Company Germany	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.



1423	2011/09/14 09:51	Goodrich Pump and Engine Control Company United States	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1424	2011/09/14 09:51	Goodrich Corporation Company United States	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1418	2011/09/14 09:38	Crompton Technology Group Limited Company United Kingdom	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1419	2011/09/14 09:38	Microtechnica Srl Company United Kingdom	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative



			substances.
1415	2011/09/14 09:37	PT Goodrich Pindad Aeronautical Systems Indonesia Company Indonesia	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1416	2011/09/14 09:37	Goodrich Actuation Systems SAS Company France	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1417	2011/09/14 09:37	Microtecnica Srl Company Italy	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.



1411	2011/09/14 09:36	Goodrich Corporation Company Japan	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1412	2011/09/14 09:36	Goodrich Actuation Systems Limited Company United Kingdom	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1414	2011/09/14 09:36	Goodrich Corporation Company Mexico	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1413	2011/09/14 09:35	Goodrich Corporation Company United States	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.



1404	2011/09/14 09:18	Atlantic Inertial Systems Limited Company United Kingdom	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1405	2011/09/14 09:18	Rosemount Aerospace GmbH Company Germany	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1406	2011/09/14 09:18	Goodrich Aerospace Pte Ltd Company Singapore	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.



1401	2011/09/14 09:16	Rosemount Aerospace SARL Company France	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1398	2011/09/14 09:15	Rosemount Aerospace Inc Company China	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1399	2011/09/14 09:15	Atlantic Inertial Systems Inc Company United States	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1402	2011/09/14 09:15	Goodrich Control Systems Limited Company France	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.



1403	2011/09/14 09:15	Simmonds Precision Products Inc Company United States	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1395	2011/09/14 09:14	Rosemount Aerospace Inc Company United States	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1396	2011/09/14 09:14	Goodrich Corporation Company United States	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1400	2011/09/14 09:14	TEAC Aerospace Technologies Inc Company United States	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.



1390	2011/09/14 08:55	Goodrich Control Systems Limited Company United Kingdom	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1387	2011/09/14 08:54	Goodrich Control Systems Pte Ltd Company Australia	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1388	2011/09/14 08:54	Goodrich Aerospace Services SAS Company France	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.



1389	2011/09/14 08:54	Goodrich Control Systems Pte Ltd Company Singapore	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1391	2011/09/14 08:54	Goodrich TAECO Aeronautical Systems (Xiamen) Company Ltd	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1385	2011/09/14 08:53	Goodrich Corporation Company United States	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.



1386	2011/09/14 08:53	Goodrich Corporation Company United Arab Emirates	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1380	2011/09/14 08:38	Goodrich Aerospace Europe GmbH Company Germany	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1382	2011/09/14 08:38	Rohr Aero Services Ltd Company United Kingdom	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.



1375	2011/09/14 08:37	Goodrich Corporation Company United States	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1378	2011/09/14 08:37	Rohr Aero Services Inc Company United States	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1379	2011/09/14 08:37	Rohr Inc Company United States	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.



1381	2011/09/14 08:37	Goodrich Aerospace Europe SAS Company France	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1373	2011/09/14 08:36	Goodrich Corporation Company United States	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1374	2011/09/14 08:36	Goodrich Aerospace Canada Ltd Company Canada	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1376	2011/09/14 08:36	Goodrich Krosno Company Poland	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative



			substances.
1377	2011/09/14 08:35	Goodrich Corporation Company United States	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1319	2011/09/14 06:30	Goodrich Corporation Company United States	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1228	2011/09/14 01:00	KLM Engineering & Maintenance Company Netherlands	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years would be beneficial for all concerned. Another major reason for requesting an extension to the "Sunset date" is the complexity of the supply chain that is typically present within the aerospace industry. It has been estimated that there are up to 8 levels in the supply chain and complex sub-tier supply bases, which leads to



1183	2011/00/12		the possibility of hundreds of companies being involved. All of these would have to be involved and managing this is a key requirement for the authorisation process. The time and effort involved would be substantial. One additional point needs to be considered: the tonnage of potassium dichromate which is used by the Aerospace & Defence Industry (total, including all its supply-chain) is very low (greatly below 1t/year for each entity, and an estimate of < 20t/year for all our industry), so low that the consortium in charge of potassium dichromate registration dossier did not present a dossier for surface treatment. Our industry has been obliged to negotiate directly with its suppliers so that a registration dossier is deposited. A consequence of this situation is that no upstream supplier will push the Authorisation process, and our industry, as downstream user will have to establish a consortium, together with its surface treatment suppliers (>500), in order to prepare applications for authorisation. The vast majority of our companies have not presented any registration dossiers and we therefore have not the same experience as the chemical industry has gained during the registration phase. In particular we expect a very long and complex convergence process on substitution readiness assessment, amplified by the great number of actors, with different level of stakes. In order to organize this process we need an application date increased by 2 years compared to the average 2.5 years observed in the first Annex XIV issue. Wee need an extension of the deadlines; please see enclosed letter
1183	2011/09/13 19:41 File attached	Company Hungary	wee need an extension of the deadlines; please see enclosed letter
1131	2011/09/13 18:23	Agoria Industry or trade a ssociation Belgium	The timing of the deadline for exemptions will be extremely ambitious for different companies given that there is at this moment still a need for a better cooperation between industry partners within the chain. This is mainly due to on the one side a lack of real producers of these compounds within Europe and on the other side the broad range of different applications, sectors for which it will be a challenge to work out together the authorization dossier. An extension of the deadline would help to bring together these different industry sectors in order to work on a common authorization dossier and thus improving the quality of the dossier as well as lowering the administrative burden for the evaluation. We therefore ask for an extension of the deadline for the submission of the authorization dossiers with 12 months and consequently also the extension of the sunset date by 12 months.



[1116	2011/09/13		Comments on Proposed Dates
		18:06	Industry or trade	The aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications. If this is unacceptable to ECHA, the aerospace industry
			association	requests the longest possible timescale to identify, test and qualify alternative substances
			United Kingdom	capable of meeting the demanding corrosion protection requirements of the industry.
		E		If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in
		File attached Confidential		January 2013, with a likely "Sunset date" of 3 years later, in January 2016. However, applications for Authorisation for the continued use of potassium dichromate would have to be
		Comidential		completed and submitted 18 months before the "Sunset date"; July 2014 by the latest. This
				represents insufficient time to complete the necessary R&D programmes required to produce
				qualified alternatives to potassium dichromate. An extension of several years is essential for
				all concerned.
				Another major reason for requesting an extension to the "Sunset date" is the complexity of the supply chain that is typically present within the aerospace industry. It has been estimated that
				there are up to 8 levels in the supply chain and complex sub-tier supply bases, which leads to
				the possibility of hundreds of companies being involved. All of these would have to be involved
				and managing this is a key requirement for the authorisation process. The time and effort
				involved would be substantial.
				One additional point needs to be considered: the tonnage of potassium dichromate which is used by the Aerospace & Defence Industry (total, including all its supply-chain) is very low
				(greatly below $1t/y$ ear for each entity, and an estimate of $< 20t/y$ ear for all our industry), so
				low that the consortium in charge of potassium dichromate registration dossier did not present
				a dossier for surface treatment. Our industry has been obliged to negotiate directly with its
				suppliers so that a registration dossier is deposited. A consequence of this situation is that no
				upstream supplier will push the Authorisation process, and our industry, as downstream user
				will have to establish a consortium, together with its surface treatment suppliers (>500), in order to prepare applications for authorisation. In particular we expect a very long and complex
				convergence process on substitution readiness assessment, amplified by the great number of
				actors, with different level of stakes. In order to organize this process we need an application
				date increased by 4 years compared to the average 2.5 years observed in the first Annex XIV
				issue.
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2011/09/13 18:06 Industry or trade association United Kingdom United Kingdom United Kingdom Industry or trade association United State Industry Industry State Industry State Industry State Industry State Industry State Industry State Industry 18 (Industry Only 19 (Industry	1250	2011/00/12		Commonts on Business Dates
Industry or trade association United Kingdom REACH for aerospace applications. If this is unacceptable to ECHA, the aerospace industry requests the longest possible timescale to identify, test and qualify alternative substances capable of meeting the demanding corrosion protection requirements of the industry. If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 3 years later, in January 2016. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2014 by the latest. This represents insufficient time to complete the necessary R8D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is essential for all concerned. Another major reason for requesting an extension to the "Sunset date" is the complexity of the supply chain that is typically present within the aerospace industry. It has been estimated that there are up to 8 levels in the supply chain and complex sub-tier supply bases, which leads to the possibility of hundreds of companies being involved. All of these would have to be involved and managing this is a key requirement for the authorisation process. The time and effort involved would be substantial. One additional point needs to be considered: the tonnage of potassium dichromate which is used by the Aerospace & Defence Industry (total, including all its supply-chain) is very low (greatly below It/year for each entity, and an estimate of < 20t/year for all our industry), so low that the consortium in charge of potassium dichromate registration dossier did not present a dossier for surface treatment. Our industry has been obliged to negotiate directly with its suppliers so that a registration dossier is deposited. A consequence of this situation is that no upstream supplier will push the Authorisation. In particular we expect a very long and complex	1359			
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1111	2011/09/13 18:04 File attached	L'ELECTROLYSE Company France	We need an extension of the deadlines; please see the enclosed letter
1094	2011/09/13	AgustaWestland Ltd Company United Kingdom	The aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications. If this is unacceptable to ECHA, the aerospace industry requests the longest possible timescale to identify, test and qualify alternative substances capable of meeting the demanding corrosion protection requirements of the industry. If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 3 years later, in January 2016. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2014 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is essential for all concerned. Another major reason for requesting an extension to the "Sunset date" is the complexity of the supply chain that is typically present within the aerospace industry. It has been estimated that there are up to 8 levels in the supply chain and complex sub-tier supply bases, which leads to the possibility of hundreds of companies being involved. All of these would have to be involved and managing this is a key requirement for the authorisation process. The time and effort involved would be substantial. One additional point needs to be considered: the tonnage of potassium dichromate which is used by the Aerospace & Defence Industry (total, including all its supply-chain) is very low (greatly below It/year for each entity, and an estimate of < 20t/year for all our industry), so low that the consortium in charge of potassium dichromate registration dossier did not present a dossier for surface treatment. Our industry has been obliged to negotiate directly with its suppliers so that a registration dossier is deposited. A consequence of this situation is that no upstream supplier will push the Authorisation process,



			date increased by 4 years compared to the average 2.5 years observed in the first Annex XIV issue.
1077	2011/09/13 17:20 File attached	Atelier Industriel de l'aéronautique de Clermont-Fd France France	We need an extension of the deadlines; please see the enclosed letter.
1074	2011/09/13 17:18 File attached	L'ELECTROLYSE Company France	We need an extension of the deadlines; please see the enclosed letter
1063	2011/09/13 17:02 File attached Confidential	Company France	The aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications. If this is unacceptable to ECHA, the aerospace industry requests the longest possible timescale to identify, test and qualify alternative substances capable of meeting the demanding corrosion protection requirements of the industry. If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 3 years later, in January 2016. However,



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1020	2011/00/12		The paragraph industry, we are sate that we transitive disharmants he are much firms. Assess VIV of
1036	2011/09/13 16:34	Company Germany	The aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications. If this is unacceptable to ECHA, the aerospace industry requests the longest possible timescale to identify, test and qualify alternative substances capable of meeting the demanding corrosion protection requirements of the industry. If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 3 years later, in January 2016. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2014 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is essential for all concerned. Another major reason for requesting an extension to the "Sunset date" is the complexity of the supply chain that is typically present within the aerospace industry. It has been estimated that there are up to 8 levels in the supply chain and complex sub-tier supply bases, which leads to the possibility of hundreds of companies being involved. All of these would have to be involved and managing this is a key requirement for the authorisation process. The time and effort involved would be substantial. One additional point needs to be considered: the tonnage of potassium dichromate which is used by the Aerospace & Defence Industry (total, including all its supply-chain) is very low (greatly below 1t/year for each entity, and an estimate of < 20t/year for all our industry), so low that the consortium in charge of potassium dichromate registration dossier did not present a dossier for surface treatment. Our industry has been obliged to negotiate directly with its suppliers so that a registration dossier is deposited. A consequence of this situation is that no upstream supplier will push the Authorisation process,



1010	2011/09/13 15:48	Aerospace and Defence Industries of	The aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications. If this is unacceptable to ECHA, the aerospace industry requests the longest possible timescale to identify, test and qualify alternative substances
	File attached	Europe	capable of meeting the demanding corrosion protection requirements of the industry. If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 3 years later, in January 2016. However, applications for Authorisation for the continued use of potassium dichromate would have to be
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			order to prepare applications for authorisation. In particular we expect a very long and complex convergence process on substitution readiness assessment, amplified by the great number of actors, with different level of stakes. In order to organize this process we need an application date increased by 4 years compared to the average 2.5 years observed in the first Annex XIV issue.



1011	2011/09/13 15:48 File attached	UITS Trade Union France	We need an extension of the deadlines (30 months instead of 18 months as mentioned in the recommendation). Please see the enclosed letter.
985	2011/09/13 14:53	Sweden MemberState Sweden	We agree with the proposed dates.
947	2011/09/13 14:01	Lufthansa Technik Aktiengesellschaf t Company Germany	If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years would be beneficial for all concerned. Another major reason for requesting an extension to the "Sunset date" is the complexity of the supply chain that is typically present within the aerospace industry. It has been estimated that there are up to 8 levels in the supply chain and complex sub-tier supply bases, which leads to the possibility of hundreds of companies being involved. All of these would have to be involved and managing this is a key requirement for the authorisation process. The time and effort involved would be substantial. One additional point needs to be considered: the tonnage of potassium dichromate which is used by the Aerospace & Defence Industry (total, including all its supply-chain) is very low (greatly below 1t/year for each entity, and an estimate of < 20t/year for all our industry), so low that the consortium in charge of potassium dichromate registration dossier did not present a dossier for surface treatment. Our industry has been obliged to negotiate directly with its suppliers so that a registration dossier is deposited. A consequence of this situation is that no upstream supplier will push the Authorisation process, and our industry, as downstream user will have to establish a consortium, together with its surface treatment suppliers (>500), in order to prepare applications for authorisation. The vast majority of our companies have not presented any registration dossiers and we therefore have not the same experience as the



			chemical industry has gained during the registration phase. In particular we expect a very long and complex convergence process on substitution readiness assessment, amplified by the great number of actors, with different level of stakes. In order to organize this process we need an application date increased by 2 years compared to the average 2.5 years observed in the first Annex XIV issue.
942	2011/09/13 13:29 File attached	CHROMALU	We need an extension of the deadlines; please see the enclosed letter
		France	
895	2011/09/13 11:49	European Aviation Safety Agency European Institution Germany	This chemical substance is used in manufacturing and or maintenance of aviation products and parts. It might not be easy to find an alternative substance that would have the same attributes and or performance and the banning of such substance may therefore have a negative impact on aviation safety. We invite the ECHA to consider a possible exemption for the use in aviation applications or an appropriate transition period. The European Aviation Safety Agency is willing to contribute to a discussion on such exemption or transition.



894	2011/09/13 11:48 File attached	AIA-CP Company France	We need an extension of the deadlines; please see the enclosed letter
852	2011/09/12 19:32 File attached	DALIC Company France	We need an extension of the deadlines (48 months instead of 18 months as mentioned in the recommendation). Please see the enclosed letter.
835	2011/09/12 18:02 File attached	Company United Kingdom	The aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications. If this is unacceptable to ECHA, the aerospace industry requests the longest possible timescale to identify, test and qualify alternative substances capable of meeting the demanding corrosion protection requirements of the industry. If ECHA follow previous practice, it is likely that potassium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 3 years later, in January 2016. However, applications for Authorisation for the continued use of potassium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2014 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to potassium dichromate. An extension of several years is essential for all concerned. Another major reason for requesting an extension to the "Sunset date" is the complexity of the supply chain that is typically present within the aerospace industry. It has been estimated that there are up to 8 levels in the supply chain and complex sub-tier supply bases, which leads to the possibility of hundreds of companies being involved. All of these would have to be involved and managing this is a key requirement for the authorisation process. The time and effort involved would be substantial. One additional point needs to be considered: the tonnage of potassium dichromate which is used by the Aerospace & Defence Industry (total, including all its supply-chain) is very low (greatly below 1t/year for each entity, and an estimate of < 20t/year for all our industry), so low that the consortium in charge of potassium dichromate registration dossier did not present



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607	2011/09/07 19:08 File attached Confidential	Individual France	We ask ECHA for: □ Delaying the inclusion of chromates in the Annex XIV, □ Postponing the application dates and the sunset dates, □ Accepting an exemption from Annex XIV obligations for legacy programs.
604	2011/09/07 18:08 File attached	Individual France	We need an extension of the deadlines (30 months instead of 18 months as mentioned in the recommandation). Please see the enclosed letter



597	2011/09/07 14:59	Company Germany	Application date: 2021 Sunset date: Application date + 18 months National and international normations most likely will not be changed in a shorter period of time.
552	2011/08/24 14:10	WWF European Policy Office International NGO Belgium	The timelines foreseen for transitional arrangements should be shortened to an application date of 12 months (sun set date 30 months) after the date of inclusion in Annex XIV.
473	2011/07/05 18:06 File attached Confidential	Company United Kingdom	It would be more reasonable to have sunset dates set 5-8 years from now as opposed to 3-5 years per the norm.



III - COMMENTS ON USES THAT SHOULD BE EXEMPTED FROM AUTHORISATION, INCLUDING REASONS FOR THAT:

#	Date (Attachment provided)	Submitted by (name, Organisation/ MSCA)	Comment
1865	2011/09/15 12:31	REISSER- Schraubentechni k GmbH, Member of Würth Group Company Germany	Einsatzgebiete: o chemische Industrie o Galvanikindustrie o Korrosionsschutz o Oberflächenbehandlung o Oberflächenschutz o Passivierung von Zink und Zinklegierungsbeschichtungen Verfügbarkeit von Alternativen o Sind noch in der Entwicklung, jedoch können die Eigenschaften von cobalt-haltigen Passivierungen bis heute nicht erreicht werden. o oder extrem teuer o Preis-Leistungsverhältnis stimmt nicht Sichere Handhabung in den Betrieben: o Die sichere Handhabung der Substanzen in galvanischen Betrieben sind durch entsprechende Schutzausrüstungen gewährleistet, Englisch: Applications: o chemicals industry o electroplating industry o protechtion against corrosion o surface treatment o surface protection o protection of zinc and zinc alloy plating Availiability of Alternatives o alternatives are still in development, but until now the altenatives do not reach the performance an process capability of cobalt containing zinc protection solutions.
			o the alternatives are much more expansive



			o there is a big gap in cost/performance ratio Assured handling in shop floor: o the assured handling at electroplating shops is achieved by providing and using personal protective equipment
1856	2011/09/15 09:29	Company Germany	Kaliumdichromat ist eine Stoff der für verschieden analytische Bestimmungsverfahren europaweit verwendet wird, die gesetzlich vorgeschrieben sind. Besonders hervorzuheben sind hier die Bestimmung des chemischen Sauerstoffbedarf in Wasser und Abwasser (CSB) nach DIN 38409 bzw. EN ISO 15705 und die Arzneimittelanalytik nach European Pharmacopoeia 7.0. Die CSB Bestimmung ist eine europaweit angewendete Methode im Bereich Abwasser Behandlung und Kontrolle, die in vielen gesetzlichen Vorschriften vorgeschrieben wird und von allen öffentlich-rechtlichen, staatlichen und privaten Laboratorien verwendet wird. Zur Zeit gibt es keine etablierte alternative Methode ohne Dichromat zur Bestimmung oxidierbarer Stoffe im Wasser. Die Verwendung von Kaliumdichromat in diesen Bereichen der Analytik und Forschung erfolgt in der Regel durch qualifiziertes Fachpersonal und unter kontrollierten Laborbedingungen. Eine geregelte Entsorgung in den Laboratorien bzw. durch Rücknahme und Aufarbeitung der Abfalllösungen durch die Hersteller schließt eine Umweltexposition Die dargelegten Verwendungen genügen den Anforderungen des Art.58(2) für eine sichere Verwendung die von der Zulassung ausgenommen werden kann. Um die Versorgung aller europäischen analytischen Laboratorien mit Reagenzien und Lösungen sowie Standards für die Chromatbestimmung zu gewährleisten sollte die Verwendung als Analytisches Reagenz durch professionelle Verwender von der Autorisierung ausgenommen werden. Ohne eine explizite Freistellung dieser Verwendung wird es unweigerlich zu großen Problemen bei der Routineanalytik von Wasser und Arzneimitteln kommen.



1846	2011/09/15 00:03 File attached	Aerospace Industries Association of America	Specific aerospace industry applications
		Industry or trade association United States	
1838	2011/09/14 22:45 File attached	ArcelorMittal Company Luxembourg	cfr. ArcelorMittal answer to the consultation on Chromium Trioxide (EC Number 215-607-8) and letter attached.
1825	2011/09/14 21:33 File attached Confidential	Galion Company France	Automated processes and enclosed systems in surface treatment should be exempted, as well as activities covered by the IED directive; please see the enclosed letter.



1787	2011/09/14	European	Use as an analytical reagent:
1707	19:51	Federation of	Liquid potassium dichromate formulations are used as analytical reagent, e.g. as volumetric
	15.51	Pharmaceutical	solution or for the standardization of volumetric solutions and instruments in the
		Industries &	pharmaceutical industry and ISO-certificated labs and in routine analytics for quality control of
		Associations	raw materials and finished products.
			Potassium dichromate formulations for standardization purposes and as analytical reagent are
			prescribed in the European Pharmacopoeia (Ph. Eur.), in the US Pharmacopoeia (USP), and in
			the ACS.
		International	The usage of potassium dichromate is still state of the art, no alternative methods are
		organisation	available. At the moment there is no evidence, that either the European or the US
		Belgium	Pharmacopoeia is seeking for alternatives to potassium chromate formulations.
			ISO-certified labs and pharmaceutical quality control labs in the EU are obliged by
			governmental organizations (e.g. FDA) to perform the calibration of UV/VIS photometer on a
			regular basis and therefore have the need to use potassium dichromate formulations.
			All formulations mentioned in the uses described above are used in the laboratory by industrial
			and professional users that are well-trained. The concentration used in these formulations is
			low (up to
			5 % as a maximum), the volume needed for one analysis/calibration is minimal, typically the
			formulations are provided in sealed cuvettes or ampoules containing between 2 and 10
			milliliters.
			According to our knowledge the majority of the potassium dichromate formulations used for
			calibration purposes and as analytical reagents are disposed of in line with current legislation.
			Therefore, we suggest that not only the use of potassium dichromate in scientific research and
			development but also the formulation and the filling to supply into these R&D applications
			should be exempted from authorisation.
			This reagent is used in the preparation of eight different solutions referenced in the Ph. Eur.
			and in 29 specific monographs, primarily for ID tests. The monographs include, Catgut sterile,
			Catgut sterile for veterinary use, glacial acetic acid, calcium gluconate, calcium gluconate for
			injection, carnauba wax, chlorhexidine digluconate solution, clomipramine hydrochloride,
			desipramine hydrochloride, docusate sodium, ferrous gluconate, glycerol, glycerol 85%,
			griseofulvin, isopropyl alcohol, magnesium peroxide, methyltestosterone, methylthioninium
			chloride, paracetamol, pilocarpine hydrochloride, pilocarpine nitrate, povidone, povidone
			iodinated, sodium perborate hydrated, sodium picosulfate, spironolactone, trimipramine
			maleate, warfarin sodium and warfarin sodium clathrate.
			Significance of the European Pharmacopoeia



The European Pharmacopoeia (Ph. Eur.) is prepared under the authority of the Council of Europe. The governments of Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, 'the former Yugoslav Republic of Macedonia', Turkey and the United Kingdom currently recognize the European Pharmacopoeia. Articles (drug substance or excipients) covered by a Ph. Eur. monograph must meet the requirements of the monograph, including any applicable general tests referenced by the monograph in order to be legally marketed or used in a marketed medicinal product.

EFPIA Recommendation

In the light of the above considerations, EFPIA Recommends that Potassium Dichlorate be exempt from authorisation for any use in the research, development, manufacture or anlytical control of medicinal products and their ingredients and for any corresponding uses in relation to medical devices.

This should cover the steps starting from manufacture of the substance (already exempted), filling into packages, preparation of formulations described in standards (DIN, EN, ISO and ASTM), Pharmacopoeias (Reag. Ph. Eur. and ACS) till the use as calibration standard for ICP and AAS. The use of these formulations for scientific R&D (< 1t/a) is already exempted. The criteria for prioritization of substances for inclusion into Annex XIV are listed in Art. 58 (3):

- a) PBT or vPvB properties, or
- b) wide dispersive use, or
- c) high volumes.

None of these criteria applies to Potassium Dichromate. As mentioned in the background document, the volume of Potassium Dichromate regulated by the authorization in the EU is quite low and the uses of the substance are not considered as wide dispersive.

Nevertheless, we understand the need for the authorization of Potassium Dichromate (regulatory effectiveness) to prevent the switch from other cobalt salts, which are fulfilling the criteria of Art. 58 (3), to Potassium Dichromate for some uses. However, this should not lead to authorization for uses of Potassium Dichromate which are not related to this regulatory effectiveness and which would not have been in focus of authorization based solely on the criteria of Art. 58 (3).



1738	2011/09/14 18:31 File attached	Company France	Automated processes and enclosed systems in surface treatment should be exempted, as well as activities covered by the IED directive; please see the enclosed letter
1734	2011/09/14 18:21	Association of the British Pharmaceutical Industry Industry or trade association United Kingdom	ABPI has noted with interest the call by ECHA of June 2011 for comments on proposals to include a number of new substances, including potassium dichromate, in Annex XIV of the REACH Regulation as substances of very high concern (SVHCs) which would require authorisation for their use. A number of these substances, including potassium dichromate, have critical uses in the research, manufacture and control of medicinal products for which there are, at this time, no practical alternatives. The details relating to potassium dichromate are set out below and ABPI asks that, if it is to be included in Annex XIV, it be exempted from the necessity for authorisation for its use in research, development, manufacture or anlytical control of medicinal products and their ingredients and for any corresponding uses in relation to medical devices. This should cover the steps starting from manufacture of the substance (already exempted), filling into packages, preparation of formulations described in standards (DIN, EN, ISO and ASTM), Pharmacopoeias (Reag. Ph. Eur. and ACS) till the use as calibration standard for ICP and AAS. The use of these formulations for scientific R&D (< 1t/a) is already exempted. The criteria for prioritization of substances for inclusion into Annex XIV are listed in Art. 58 (3): a) PBT or vPvB properties, or b) wide dispersive use, or c) high volumes. None of these criteria applies to Potassium Dichromate. As mentioned in the background document, the volume of Potassium Dichromate regulated by the authorization in the EU is quite low and the uses of the substance are not considered as wide dispersive. Nevertheless, we understand the need for the authorization of Potassium Dichromate (regulatory effectiveness) to prevent the switch from other cobalt salts, which are fulfilling the criteria of Art. 58 (3), to Potassium Dichromate for some uses. However, this should not lead to authorization for uses of Potassium Dichromate which are not related to this regulatory



effectiveness and which would not have been in focus of authorization based solely on the criteria of Art. 58 (3).

Use as an analytical reagent:

Liquid potassium dichromate formulations are used as

analytical reagent, e.g. as volumetric solution or for the standardization of volumetric solutions and instruments in the pharmaceutical industry and ISO-certificated labs and in routine analytics for quality control of raw materials and finished products.

Potassium dichromate formulations for standardization purposes and as analytical reagent are prescribed in the European Pharmacopoeia (Ph. Eur.), in the US Pharmacopoeia (USP), and in the ACS.

The usage of potassium dichromate is still state of the art, no alternative methods are available. At the moment there is no evidence, that either the European or the US Pharmacopoeia is seeking for alternatives to potassium chromate formulations. ISO-certified labs and pharmaceutical quality control labs in the EU are obliged by governmental organizations (e.g. FDA) to perform the calibration of UV/VIS photometer on a regular basis and therefore have the need to use potassium dichromate formulations. All formulations mentioned in the uses described above are used in the laboratory by industrial and professional users that are well-trained. The concentration used in these formulations is low (up to

5 % as a maximum), the volume needed for one analysis/calibration is minimal, typically the formulations are provided in sealed cuvettes or ampoules containing between 2 and 10 milliliters.

According to our knowledge the majority of the potassium dichromate formulations used for calibration purposes and as analytical reagents are disposed of in line with current legislation. Therefore, we suggest that not only the use of potassium dichromate in scientific research and development but also the formulation and the filling to supply into these R&D applications should be exempted from authorisation.

This reagent is used in the preparation of eight different solutions referenced in the Ph. Eur. and in 29 specific monographs, primarily for ID tests. The monographs include, Catgut sterile, Catgut sterile for veterinary use, glacial acetic acid, calcium gluconate, calcium gluconate for injection, carnauba wax, chlorhexidine digluconate solution, clomipramine hydrochloride, desipramine hydrochloride, docusate sodium, ferrous gluconate, glycerol, glycerol 85%, griseofulvin, isopropyl alcohol, magnesium peroxide, methyltestosterone, methylthioninium chloride, paracetamol, pilocarpine hydrochloride, pilocarpine nitrate, povidone, povidone iodinated, sodium perborate hydrated, sodium picosulfate, spironolactone, trimipramine



			maleate, warfarin sodium and warfarin sodium clathrate. Significance of the European Pharmacopoeia The European Pharmacopoeia (Ph. Eur.) is prepared under the authority of the Council of Europe. The governments of Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, 'the former Yugoslav Republic of Macedonia', Turkey and the United Kingdom currently recognize the European Pharmacopoeia. Articles (drug substance or excipients) covered by a Ph. Eur. monograph must meet the requirements of the monograph, including any applicable general tests referenced by the monograph in order to be legally marketed or used in a marketed medicinal product.
1721	2011/09/14 18:05	Indestructible Paint Ltd. Company United Kingdom	The aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications. The primary use of potassium dichromate in aerospace applications is to contribute to the corrosion protection scheme of the aircraft. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV. It is important to note that the RoHS regulation allows exemption for chromium (VI) compounds that are to be used in transport applications. Other regulations applied to the aerospace industry detail corrosion performance requirements for corrosion protection. There are no fully qualified alternatives to chromium (VI) compounds that meet these requirements. Finally, it is important to note that current production and legacy products will need to be maintained and possibly repaired throughout their life. It is essential that compatible corrosion protection products are available – for this reason potassium dichromate should be exempt from the requirements of Annex XIV for aerospace applications.



1706	2011/09/14 17:40 File attached	Company France	Automated processes and enclosed systems in surface treatment should be exempted, as well as activities covered by the IED directive; please see the enclosed letter
1694	2011/09/14 17:29 File attached Confidential	Company Germany	We support the position of the Aerospace and Defence Industries of Europe (ASD)
1680	2011/09/14 17:09 File attached	Sabena technics Company France	automated process and enclosed process (without emissions) in surface treatment should be exempted, as well as activities coverd by the IED directive. Please see the enclosed letter.
1645	2011/09/14 16:08 File attached Confidential	Company United Kingdom	We support the position of the Aerospace and Defence Industries of Europe (ASD)



1644	2011/09/14 16:07 File attached	CEMBUREAU - The European cement association Industry or trade association Belgium	The use of K2Cr2O7 as a laboratory chemical in analytical test methods should be exempt from authorisation (Art 58(2)). K2Cr2O7 is the primary standard material for Cr (VI)-containing calibration solutions in analytical chemistry and is also a good oxidising agent. It is therefore used in several analytical test methods (please see attached document for some examples). There is no alternative to the use of K2Cr2O7 to determine the Cr (VI) content in cement or cement containing mixtures. Its use is mandatory under the standard EN 196-10. It is typically used in very small quantities (depending on the test which is carried out, max 150 g – 1 kg/year of pure K2Cr2O7). Both the Directive on carcinogens at work – Council Directive 90/394/EEC of 28 June 1990 and the Chemical Agents Directive - Council Directive 98/24/EC of 7 April 1998 apply to its use as lab chemical. It is handled by well-trained and highly specialised personnel and under well-controlled conditions. It is mandatory for all personnel in the lab to wear personal protective equipment (gloves and safety glasses). This means that the risk for negative impacts is extremely low. K2Cr2O7 has been used since 1984 by cement plants in Scandinavia to determine the Cr (VI) content and since 2002 for determination of the TOC content in limestone. No cases of negative
1636	2011/09/14 16:00	Goodrich Corporation Company United States	impacts on human health or the environment due to the use of K2Cr2O7 in laboratories at cement plants have been reported. The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.



1632	2011/09/14 15:58	Goodrich Corporation Company United States	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.
1562	2011/09/14 14:32	The Boeing Company	Given the critical nature of chromate to safe operation of aircraft, Boeing recommends that ECHA and the European Commission consider exemptions for the placing on the market or use as substance or in preparations for the following aerospace manufacturing and maintenance applications: - As corrosion inhibitors such as primers for metallic substrates, adhesive bonding primers and
		Company Belgium	adhesives. - Metal finishing such as anodize, plating, conversion coatings, deoxidizing and surface treatment etchant baths. - Sealants - Chemical stripping - Specialty coatings An additional challenge is that aircraft have long life cycles (40 years or more) and alternatives must be compatible with existing aircraft support systems. Forced substitution would be incompatible with spare and maintenance after-markets. European suppliers and customers will need to use chromates for the foreseeable future to ensure product quality, reliability and safety. Uncertainties around the availability of these substances will have negative impact on the product life cycle. Thus, these uses should be exempted for safety critical applications or where a regulator's mandatory product performance requirements have no proven alternative. All existing and in-production fleets of civil and military aerospace products will require chromates to maintain operability for the next decades. The inclusion of these substances in Annex XIV for authorization will put European suppliers and operators under significant safety and business risk fostering supply disruptions, obsolescence and competitive disadvantage. Uncertainty whether authorization will be granted or not will be disruptive to complex aerospace supply chains given that these supply chains work on a long lead basis and the multiplicity of users and applications at all levels create uncertainty whether suppliers, maintenance facilities, airlines and military operators in the EU will be able to comply with the



			authorization requirements. Finally, the environmental lifecycle of chromates must be considered; chromates provide an environmental benefit downstream by minimizing corrosion and extending overhaul periods. When applied, utilized, and disposed of within the existing prescribed handling guidelines, chromates do not pose a health threat to the flying public.
1427	2011/09/14 09:52	Goodrich Control Systems Ltd Company United Kingdom	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.
1429	2011/09/14 09:52	Goodrich Control Systems Ltd Company United Kingdom	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.



1430	2011/09/14 09:52	Goodrich Control Systems Itd Company United Kingdom	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.
1431	2011/09/14 09:52	Goodrich Control Systems GmbH Company United Kingdom	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.
1423	2011/09/14 09:51	Goodrich Pump and Engine Control Company United Kingdom	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.



1424	2011/09/14 09:51	Goodrich Corporation Company United Kingdom	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.
1418	2011/09/14 09:38	Crompton Technology Group Limited Company United Kingdom	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.
1419	2011/09/14 09:38	Microtechnica Srl Company United Kingdom	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.



1415	2011/09/14 09:37	PT Goodrich Pindad Aeronautical Systems Indonesia	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.
		Company United Kingdom	
1416	2011/09/14 09:37	Goodrich Actuation Systems SAS Company United Kingdom	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.
1417	2011/09/14 09:37	Microtecnica Srl Company United Kingdom	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.



1411	2011/09/14 09:36	Goodrich Corporation Company United States	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.
1412	2011/09/14 09:36	Goodrich Actuation Systems Limited Company United Kingdom	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.
1414	2011/09/14 09:36	Goodrich Corporation Company United States	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.



1413	2011/09/14 09:35	Goodrich Corporation Company United States	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.
1404	2011/09/14 09:18	Atlantic Inertial Systems Limited Company United States	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.



1405	2011/09/14 09:18	Rosemount Aerospace GmbH Company United States	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.
1406	2011/09/14 09:18	Goodrich Aerospace Pte Ltd Company United States	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.
1401	2011/09/14 09:16	Rosemount Aerospace SARL Company United States	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.
1398	2011/09/14 09:15	Rosemount Aerospace Inc Company United States	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.



1399	2011/09/14 09:15	Atlantic Inertial Systems Inc Company United States	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.
1402	2011/09/14 09:15	Goodrich Control Systems Limited Company United States	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.
1403	2011/09/14 09:15	Simmonds Precision Products Inc Company United States	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.



1395	2011/09/14 09:14	Rosemount Aerospace Inc Company United States	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.
1396	2011/09/14 09:14	Goodrich Corporation Company United States	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.
1400	2011/09/14 09:14	TEAC Aerospace Technologies Inc Company United States	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.
1390	2011/09/14 08:55	Goodrich Control Systems Limited Company United States	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.



1387	2011/09/14 08:54	Goodrich Control Systems Pte Ltd Company United States	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.
1388	2011/09/14 08:54	Goodrich Aerospace Services SAS Company United States	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.
1389	2011/09/14 08:54	Goodrich Control Systems Pte Ltd Company United States	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.



1391	2011/09/14 08:54	Goodrich TAECO Aeronautical Systems (Xiamen) Company Ltd	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.
		Company United States	
1385	2011/09/14 08:53	Goodrich Corporation Company United States	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.
1386	2011/09/14 08:53	Goodrich Corporation Company United States	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.



1380	2011/09/14 08:38	Goodrich Aerospace Europe GmbH Company United States	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.
1382	2011/09/14 08:38	Rohr Aero Services Ltd Company United States	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.
1375	2011/09/14 08:37	Goodrich Corporation Company United Kingdom	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.
1378	2011/09/14 08:37	Rohr Aero Services Inc Company United States	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.



1379	2011/09/14 08:37	Rohr Inc Company United States	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.
1381	2011/09/14 08:37	Goodrich Aerospace Europe SAS Company United States	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.
1373	2011/09/14 08:36	Goodrich Corporation Company United States	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.



1374	2011/09/14 08:36	Goodrich Aerospace Canada Ltd Company United States	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.
1376	2011/09/14 08:36	Goodrich Krosno Company United States	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.
1377	2011/09/14 08:35	Goodrich Corporation Company United States	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.
1319	2011/09/14 06:30	Goodrich Corporation Company United Kingdom	The primary use of potassium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.



1228	2011/09/14 01:00	KLM Engineering & Maintenance Company Netherlands	The primary use of potassium dichromate in aerospace applications is to contribute to the corrosion protection scheme of the aircraft. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.
1198	2011/09/13 20:20	Safran-Group Company France	In addition to the comments made by ASD, the Safran Group is providing the following comment: Given the facts that: Ø the substance is used only in the process and by a limited number of companies Ø the process is implemented by professional companies which apply the relevant safety rules in their facility for handling the substance Ø the substance does not remain on the parts, or in very small quantities the Safran Group requests that potassium dichromate be exempt from Annex XIV of REACH: Ø for automated processes in surface treatment Ø for enclosed systems in surface treatment Ø for surface treatment activities regulated by the IED Directive 2010/75/UE and the best available techniques.
1183	2011/09/13 19:41 File attached	Company France	Automated processes and enclosed systems in surface treatment should be exempted, as well as activities covered by the IED directive; please see the enclosed letter



1131	2011/09/13 18:23	Agoria Industry or trade association Belgium	We think that at least for hard chromium plating in appropriate installation a generic exemption should be given. We do see several arguments linked to this demand: The low to non-existing exposure in the workplace. The only possible exposure is within the eventual setting-up, maintenance and or intervention in the automatic line. This limits even further the exposure time period and workers can be well protected during these interventions The fact that the general public is not exposed at all given that the end product is not containing any chromium VI component, only a chrome metal plating, It remains difficult to find technically and economic viable substitution products or processes and there is a high potential of complete delocalization of the production out of Europe. This will have an important impact on the supply chain, including some major pressure for the closing of certain important production plants given the fact that this step is an important element in the added value of these production chains. We also believe that for hardchromation the proposed substances are to be seen as intermediates as they are transformed during the production process. These are in general exempted from the authorization process (article 2 §8 of REACH).
1124	2011/09/13 18:10	Company France	Potassium Dichromate is used as a laboratory reactant as a reference in an analytical method in very low quantity; so its use is linked with scientific research and development activity and should be exempted from authorisation.



1116	2011/09/13 18:06 File attached Confidential	Industry or trade association United Kingdom	Comments On Uses That Should Be Exempted The aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications. The primary use of potassium dichromate in aerospace applications is to contribute to the corrosion protection scheme of the aircraft. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV. It is important to note that the RoHS regulation allows exemption for chromium (VI) compounds that are to be used in transport applications. Other regulations applied to the aerospace industry detail corrosion performance requirements for corrosion protection. There are no fully qualified alternatives to chromium (VI) compounds that meet these requirements. Finally, it is important to note that current production and legacy products will need to be maintained and possibly repaired throughout their life. It is essential that compatible corrosion protection products are available – for this reason potassium dichromate should be exempt from the requirements of Annex XIV for aerospace applications.
1359	2011/09/13 18:06 File attached Confidential	Industry or trade association United Kingdom	Comments On Uses That Should Be Exempted The aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications. The primary use of potassium dichromate in aerospace applications is to contribute to the corrosion protection scheme of the aircraft. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV. It is important to note that the RoHS regulation allows exemption for chromium (VI) compounds that are to be used in transport applications. Other regulations applied to the aerospace industry detail corrosion performance requirements for corrosion protection. There



			are no fully qualified alternatives to chromium (VI) compounds that meet these requirements. Finally, it is important to note that current production and legacy products will need to be maintained and possibly repaired throughout their life. It is essential that compatible corrosion protection products are available – for this reason potassium dichromate should be exempt from the requirements of Annex XIV for aerospace applications.
1111	2011/09/13 18:04 File attached	L'ELECTROLYSE Company France	Automated processes and enclosed systems in surface treatment should be exempted, as well as activities covered by the IED directive; please see the enclosed letter
1094	2011/09/13 17:50	AgustaWestland Ltd Company United Kingdom	The aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications. The primary use of potassium dichromate in aerospace applications is to contribute to the corrosion protection scheme of the aircraft. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV. It is important to note that the RoHS regulation allows exemption for chromium (VI) compounds that are to be used in transport applications. Other regulations applied to the aerospace industry detail corrosion performance requirements for corrosion protection. There are no fully qualified alternatives to chromium (VI) compounds that meet these requirements. Finally, it is important to note that current production and legacy products will need to be



			maintained and possibly repaired throughout their life. It is essential that compatible corrosion protection products are available – for this reason potassium dichromate should be exempt from the requirements of Annex XIV for aerospace applications.
1077	2011/09/13 17:20 File attached	Atelier Industriel de l'aéronautique de Clermont-Fd	Automated processes and enclosed systems in surface treatment should be exempted, as well as activities covered by the IED directive; please see the enclosed letter.
		Company France	
1074	2011/09/13 17:18	L'ELECTROLYSE	Activities covered by the IED directive should be exempted, as well as strategic processes and optimized and enclosed systems in surface treatment; please see the enclosed letter
	File attached	Company France	



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1063	2011/09/13 17:02		The aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications.
		Company	The primary use of potassium dichromate in aerospace applications is to contribute to the
	File attached	France	corrosion protection scheme of the aircraft. This is required to function for the life of the
	Confidential		aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism
			for metallic components that are built into the structure of the aircraft and may be inaccessible
			in terms of easy maintenance. For this reason, many of the applications can be considered to
			be Safety Critical Applications. All such applications of potassium dichromate should be exempt
			from the requirements of Annex XIV.
			It is important to note that the RoHS regulation allows exemption for chromium (VI)
			compounds that are to be used in transport applications. Other regulations applied to the
			aerospace industry detail corrosion performance requirements for corrosion protection. There
			are no fully qualified alternatives to chromium (VI) compounds that meet these requirements.
			Finally, it is important to note that current production and legacy products will need to be
			maintained and possibly repaired throughout their life. It is essential that compatible corrosion
			protection products are available – for this reason potassium dichromate should be exempt
			from the requirements of Annex XIV for aerospace applications.
1036	2011/09/13		The aerospace industry requests that potassium dichromate be exempt from Annex XIV of
	16:34		REACH for aerospace applications.
		Company	The primary use of potassium dichromate in aerospace applications is to contribute to the
		Germany	corrosion protection scheme of the aircraft. This is required to function for the life of the
			aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism
			for metallic components that are built into the structure of the aircraft and may be inaccessible
			in terms of easy maintenance. For this reason, many of the applications can be considered to
			be Safety Critical Applications. All such applications of potassium dichromate should be exempt
			from the requirements of Annex XIV.
			It is important to note that the RoHS regulation allows exemption for chromium (VI)
			compounds that are to be used in transport applications. Other regulations applied to the
			aerospace industry detail corrosion performance requirements for corrosion protection. There
			are no fully qualified alternatives to chromium (VI) compounds that meet these requirements.
			Finally, it is important to note that current production and legacy products will need to be
			maintained and possibly repaired throughout their life. It is essential that compatible corrosion
			protection products are available – for this reason potassium dichromate should be exempt
			from the requirements of Annex XIV for aerospace applications.



1010	2011/09/13	Aerospace and	The aerospace industry requests that potassium dichromate be exempt from Annex XIV of
	15:48	Defence	REACH for aerospace applications.
	File attached	Industries of Europe	The primary use of potassium dichromate in aerospace applications is to contribute to the corrosion protection scheme of the aircraft. This is required to function for the life of the aircraft, which may be over 40 years.
		Industry or trade association United Kingdom	Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV. It is important to note that the RoHS regulation allows exemption for chromium (VI) compounds that are to be used in transport applications. Other regulations applied to the aerospace industry detail corrosion performance requirements for corrosion protection. There are no fully qualified alternatives to chromium (VI) compounds that meet these requirements. Finally, it is important to note that current production and legacy products will need to be maintained and possibly repaired throughout their life. It is essential that compatible corrosion protection products are available – for this reason potassium dichromate should be exempt from the requirements of Annex XIV for aerospace applications.
1011	2011/09/13 15:48	UITS	We asked an exemption for enclosed process, automatic process and activities which are covered by IED regulation. Please see the enclosed letter
	File attached	Trade Union France	
947	2011/09/13 14:01	Lufthansa Technik Aktiengesellschaf t	The primary use of potassium dichromate in aerospace applications is to contribute to the corrosion protection scheme of the aircraft. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV.
		Germany	



942	2011/09/13	CHROMALU	Automated processes and enclosed systems in surface treatment should be exempted, as well
	13:29 File attached	Company France	as activities covered by the IED directive; please see the enclosed letter
911	2011/09/13 12:10	The Tintometer Ltd. Company United Kingdom	Public Consultation on the inclusion of potassium dichromate to the Authorisation list Chemical Oxygen Demand (COD) and the need for continued use of potassium dichromate for analysis purposes Potassium dichromate is a compound essential to the accurate measurement of Chemical Oxygen Demand (or COD) - the determination of oxidizable material in a water sample. The COD test is used throughout Europe (and the world) as a monitor in wastewater treatment and control. It is a standard parameter which is firmly established Europe-wide as part of important EU and national directives and legislation. Methods have been established as British Standards (BS 6068-2.80:2002) and EN-ISO standards (EN ISO 15705) for its determination. In the test, the oxidizable materials in the water are oxidised with potassium dichromate and the concentration of such oxidising material in the water is established on the basis of an observable colour change, and this is measured photometrically and reported in mg/l. COD is used daily for control of public sewage treatment plants and industrial wastewater treatment plants, and is required by law. The Urban Waste Water Treatment Directive EC 91/271 (UWWTD) describes the requirements and criteria regarding the discharge of communal wastewater. In Appendix 1 of the Directive, the corresponding concentration / limit value for the COD parameter is set out. The main part of UK water legislation that includes COD testing is the UK Water Act 1991. This legislation contains provisions regarding the discharge of trade effluent to public sewage



systems. Under the legislation, any private industry seeking to discharge an effluent to a public sewage system must obtain a 'trade effluent discharge consent' from the local water authority. These consents include COD as one of the key parameters, and set a maximum value in mg/l COD for any discharge. So COD testing is a vital and highly used parameter essential for the continued ability of UK industry to comply with UK government legislation.

In addition, every local water authority in UK uses COD on a daily basis to assess both incoming effluent to a water treatment facility, and also to monitor compliance with UK legislation covering discharge to rivers and groundwaters, as based on the UWWTD. It is not just in land-based applications where there is a vital role for COD testing. World shipping has been expanding at a rapid rate over recent years. According to UNCTAD (www.unctad.org) at the beginning of 2010, the world merchant fleet reached 1,276 million deadweight tons (dwt) - an increase of 84 million dwt over 2009. In 2005 the world merchant fleet stood at 960 million deadweight tons (dwt), so over those 5 years there was an increase of 33%.

There are 4 main sources of water related pollution from large vessels – ballast waters, sewage, cleaning operations, and bilge water. Each of these have a potential for oxygen depletion in receiving waters (usually a harbour or harbour approaches) on discharge, and the shipping industry relies on quick, reliable tests to enable them to evaluate waste streams, and apply suitable treatment prior to discharge.

A combination of local regulation by national authorities covering territorial waters and MARPOL (International Convention for the Prevention of Pollution from Ships) provides a regulatory framework for merchant shipping including cruise liners. However, it is clear that the prevailing international rules and standards, principally those enacted by the International Maritime Organization (IMO), have not been adequately enforced and complied with (Vessel-Source Pollution, the Ecological Imperative and the Compliance Problem – Alan Khee-Jin Tan – March 2006). Deficiencies in the regime formation process and the peculiar features of the shipping industry have led to a general lack of incentives for compliance with safety and pollution control rules (Alan Khee-Jin Tan – March 2006). Essentially, sub-standard shipping managers and operators continue to persist in ignoring regulations. According to Tan, the main driver is cost and competitive pressures. All support and encouragement should therefore be provided to the currently compliant managers and operators to abide by regulation. Also enforcement authorities need accurate, reliable, as well as quick results, if they are to be able to carry out their duties effectively in the interests of environmental protection. Should testing be made more difficult, more expensive, or more time-consuming, the likely result will be less compliance. Less compliance will lead to more pollution, at considerable cost to the marine



environment.

While bio-chemical oxygen demand (BOD) testing is mainly specified for control of potentially polluting discharges from ships, COD is often used, because its relationship to BOD can be correlated, thereby providing a quicker (3 hours to result) and more convenient test for ship operators. The 5 day BOD test is not practical when a vessel may have only a few hours in port. The limitations of BOD testing are well documented, especially that the 5 day period for the test may not correspond with the point where all soluble organic matter has been used. If COD is no longer to be used on ships, or in port laboratories, then the consequences will be to reduce the compliance of ship operators with existing regulations, and also to encourage ship operators to covertly discharge outside territorial limits where enforcement is most infrequent and least effective.

The main form of COD testing now uses pre-packaged reagents in which potassium dichromate is a key ingredient, supplied in tubes ready for use in both laboratory and on-site analysis. In many countries, these tube tests are widely accepted as an alternative to standard methods. A large number of laboratories are accredited with this method.

The advantage of the tube test is the low risk of the analyst coming into contact with potassium dichromate. It is a virtually closed system, as the user is simply required to add a small amount of the water sample to the reagent in the tube. After this, the tube remains closed for the rest of the analysis process (outcome, evaluation). Hence, the risk of contact with the reagent is extremely low. Disposal of the fully reacted tubes is assumed by the manufacturer, or in the case of marine applications, the ship service contractors, along with other waste products. The tube test requires 90% less harmful ingredients than conventional reference methods and thus also less potassium dichromate.

Currently there is no alternative method for the measurement of oxidizable substances other than using potassium dichromate. Other reagents such as potassium permanganate, cerium(IV) sulphate and potassium iodate have been tried, but only potassium dichromate is able to fully oxidise almost all organic compounds. All other possible reagents can therefore lead to erroneous results. The entire wastewater treatment industry is controlled via COD, and in marine applications, COD is also increasingly of interest to both ship operators and law enforcement agencies. COD determination is the central and indispensable element in wastewater treatment all over Europe. To ban its use for maritime pollution prevention would be a major setback to increasing efforts to bring marine water treatment and pollution prevention up to the standards that apply on land. Furthermore, a ban on the use of potassium dichromate is not possible in Europe as long as there are no legal alternatives. This is why we propose that the use of potassium dichromate for "analysis purposes" should be exempt from



			the approval obligation or be classified as approved for use in analysis applications.
895	2011/09/13 11:49	European Aviation Safety Agency European Institution Germany	This chemical substance is used in manufacturing and or maintenance of aviation products and parts. It might not be easy to find an alternative substance that would have the same attributes and or performance and the banning of such substance may therefore have a negative impact on aviation safety. We invite the ECHA to consider a possible exemption for the use in aviation applications or an appropriate transition period. The European Aviation Safety Agency is willing to contribute to a discussion on such exemption or transition.
894	2011/09/13 11:48 File attached	AIA-CP Company France	Automated processes and enclosed systems in surface treatment should be exempted, as well as activities covered by the IED directive; please see the enclosed letter



852	2011/09/12 19:32 File attached	DALIC Company France	Local sealing should be exempted because it applies world-scale specifications for local repair or local treatment on new parts, which still call for chromium VI processes (e.g. in Aeronautics, Navy and Defence). Please see the enclosed letter.
835	2011/09/12 18:02 File attached	Company United Kingdom	The aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications. The primary use of potassium dichromate in aerospace applications is to contribute to the corrosion protection scheme of the aircraft. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of potassium dichromate should be exempt from the requirements of Annex XIV. It is important to note that the RoHS regulation allows exemption for chromium (VI) compounds that are to be used in transport applications. Other regulations applied to the aerospace industry detail corrosion performance requirements for corrosion protection. There are no fully qualified alternatives to chromium (VI) compounds that meet these requirements. Finally, it is important to note that current production and legacy products will need to be maintained and possibly repaired throughout their life. It is essential that compatible corrosion protection products are available – for this reason potassium dichromate should be exempt from the requirements of Annex XIV for aerospace applications.
771	2011/09/12 14:42	Company France	Proposal: to exempt from authorisation obligations the laboratory uses for analytical purposes. Justification: Quantities are minimal (a few kg/year) and the substance is used by professional workers under controlled conditions.
746	2011/09/12 11:26	Individual Hungary	Proposition of exemption: substance use as laboratory chemical like reagent for Chemical Oxygen Demand. Potassium dichromate solution is used with sulfuric acid and a catalyst in a closed cuvette test.



			No likehood of exposure or very little potential exists for exposures (PROC 1) with RMM.
697	2011/09/09 15:51 File attached	Company France	Enclosed systems in surface treatment should be exempted, as well as activities covered by the IED directive; please see the enclosed letter.
666	2011/09/09 12:23	Company Germany	Request: We suggest to exempt from the authorization requirement the preparation and placing on the market of solid Potassium dichromate formulations solely for the supply to industrial and professional users for scientific research and development. Background: Potassium dichromate formulations are used as tablets in routine analytics for preserving milk investigation samples. Therefore, we suggest that not only the use of potassium dichromate in scientific research and development but also the formulation and the filling to supply into these R&D applications should be exempted from authorisation.
664	2011/09/09 12:16 File attached	Company Germany	Request: We suggest to exempt from the authorization requirement the refilling and placing on the market of solid Potassium dichromate solely for the supply to industrial and professional users for scientific research and development. The exemption is required e.g. to secure the supply of medicinal products worldwide, to secure the supply with testing material needed for waste water analytics worldwide, and to secure routine analytics done in laboratories. Background: Solid Potassium dichromate is used as an oxidizer in laboratory applications, e.g. for the oxidative disintegration. Potassium dichromate in solid form is described in the reagent part of the European Pharmacopoeia for standardization purposes. Solid Potassium dichromate is mainly used to prepare liquid Potassium dichromate formulations. These liquid potassium dichromate formulations are used as analytical reagent, e.g. as volumetric solution or for the standardization of volumetric solutions and instruments in



the pharmaceutical industry and ISO-certificated labs, in the testing of waste water, and in routine analytics for quality control of raw materials and finished products.

Potassium dichromate formulations for standardization purposes and as analytical reagent are prescribed in the European Pharmacopoeia (Ph. Eur.), in the US Pharmacopoeia (USP), and in the ACS.

The usage of potassium dichromate is still state of the art, no alternative methods are available. At the moment there is no evidence, that either the European or the US Pharmacopoeia is seeking for alternatives to potassium chromate formulations. ISO-certified labs and pharmaceutical quality control labs in the EU are obliged by governmental organizations (e.g. FDA) to perform the calibration of UV/VIS photometer on a regular basis and therefore have the need to use potassium dichromate formulations. It is also used in scientific research and development as an oxidizing agent in laboratory applications, e.g. for the oxidative disintegration.

Potassium dichromate formulations are used for analytical purposes as prescribed e.g. in the DIN-Norm 38409 H41, 38409 H 44, ISO 6060, ISO 15705, APHA 5220 (several appendixes), EPA 410 and many country specific norms for waste water testing. They are used to determine the Chemical Oxygen Demand (COD). Many governments impose strict regulations on the COD allowed in waste water before the waste water can be discharged to the recipient. Therefore, these formulations are frequently used in sewage treatment plants and industrial laboratories in the EU as well as in laboratories outside the EU.

Activities are still ongoing to replace the COD measurement (where Potassium dichromate formulations are essential to use) by the measurement of the Total Organic Carbon (TOC). Several comparative studies show, that TOC measurement does not lead to the same accuracy compared to COD. Nevertheless, it is assumed that the use of COD will decline once the TOC is implemented as a standard, e.g., in the DIN-EN 1484. This might take several years. However, it is assumed that not all the COD measurements can be shifted to TOC measurement. All formulations mentioned in the uses described above are used in the laboratory by industrial and professional users that are well-trained. The concentration used in these formulations is low (up to

5 % as a maximum), the volume needed for one analysis/calibration is minimal, typically the formulations are provided in sealed cuvettes or ampoules containing between 2 and 10 milliliters.

According to our knowledge the majority of the potassium dichromate formulations used for calibration purposes and as analytical reagents are disposed of in line with current legislation. Therefore, we suggest that not only the use of potassium dichromate in scientific research and



			development but also the refilling to supply into these R&D applications should be exempted from authorisation.
663	2011/09/09 12:06 File attached	Company Germany	Request: We suggest to exempt from the authorization requirement the preparation and placing on the market of liquid potassium dichromate formulations solely for the supply to industrial and professional users for scientific research and development. The formulations will only be supplied in packages used in laboratories, e.g. sealed cuvettes, ampoules or bottles. The exemption is required e.g. to secure the supply of medicinal products as well as the quality check of instruments which are used for the control of medical substances worldwide, to secure the supply with testing material needed for waste water analytics worldwide, and to secure routine analytics done in laboratories. Background: Liquid potassium dichromate formulations are used as analytical reagent, e.g. as volumetric solution or for the standardization of volumetric solutions and instruments in the pharmaceutical industry and ISO-certificated labs, in the testing of waste water, and in routine analytics for quality control of raw materials and finished products. Potassium dichromate formulations for standardization purposes and as analytical reagent are prescribed in the European Pharmacopoeia (Ph. Eur.), in the US Pharmacopoeia (USP), and in the ACS. The usage of potassium dichromate is still state of the art, no alternative methods are available. At the moment there is no evidence, that either the European or the US Pharmacopoeia is seeking for alternatives to potassium chromate formulations. ISO-certified labs and pharmaceutical quality control labs in the EU are obliged by governmental organizations (e.g. FDA) to perform the calibration of UV/VIS photometer on a



regular basis and therefore have the need to use potassium dichromate formulations. It is also used in scientific research and development as an oxidizing agent in laboratory applications, e.g. for the oxidative disintegration.

Potassium dichromate formulations are used for analytical purposes as prescribed e.g. in the DIN-Norm 38409 H41, 38409 H 44, ISO 6060, ISO 15705, APHA 5220 (several appendixes), EPA 410 and many country specific norms for waste water testing. They are used to determine the Chemical Oxygen Demand (COD). Many governments impose strict regulations on the COD allowed in waste water before the waste water can be discharged to the recipient. Therefore, these formulations are frequently used in sewage treatment plants and industrial laboratories in the EU as well as in laboratories outside the EU.

Activities are still ongoing to replace the COD measurement (where Potassium dichromate formulations are essential to use) by the measurement of the Total Organic Carbon (TOC). Several comparative studies show, that TOC measurement does not lead to the same accuracy compared to COD. Nevertheless, it is assumed that the use of COD will decline once the TOC is implemented as a standard, e.g., in the DIN-EN 1484. This might take several years. However, it is assumed that not all the COD measurements can be shifted to TOC measurement. All formulations mentioned in the uses described above are used in the laboratory by industrial and professional users that are well-trained. The concentration used in these formulations is low (up to

 $5\,\%$ as a maximum), the volume needed for one analysis/calibration is minimal, typically the formulations are provided in sealed cuvettes or ampoules containing between 2 and 10 milliliters.

According to our knowledge the majority of the potassium dichromate formulations used for calibration purposes and as analytical reagents are disposed of in line with current legislation. Therefore, we suggest that not only the use of potassium dichromate in scientific research and development but also the formulation and the filling to supply into these R&D applications should be exempted from authorisation.



656	2011/09/09	Hach Lange	It is essential to exempt the use of potassium dichromate for "analysis purposes" respective
030	11:38	GmbH	"laboratory uses" from the requirement for approval, or it should be classified as an approved
			use.
	File attached		COD is used throughout Europe as a monitoring parameter in waste water treatment. It is a
			standard parameter and has been incorporated in many statutory regulations and guidelines all
		Company	over Europe. Corresponding procedures for determining this parameter have been defined in
		Germany	the form of DIN standards (DIN 38409 H41-44) and EN ISO standards (EN ISO 15705). When
		,	it is determined in the laboratory, the oxidisable components of water are oxidised with
			dichromate. These components are determined using titration to calculate the amount of
			potassium dichromate consumed.
			COD serves in the control and assessment of municipal sewage treatment plants and industrial
			waste water treatment plants, and is prescribed by law. The requirements and criteria
			governing the discharge of urban waste water are described in EU Directive 91/271/EEC
			(Council Directive of 21 May 1991 concerning urban waste water treatment, amended by
			Commission Directive 98/15/EC of 27 February 1998). The corresponding concentration/limit
			value for the COD parameter is defined in Annex I of the directive.
			The German Federal Water Act (WHG — of 31 July 2009 [BGBl. I P. 2585], most recently
			amended by Article 12 of the law of 11 August 2010 [BGBl. I P. 1163]) represents the major
			part of German legislation regarding water management. The WHG contains provisions for the
			protection and use of surface waters and groundwater. The Federal Water Act is implemented
			in the ordinance relating to requirements governing the discharge of waster water into bodies
			of water (the Waste Water Ordinance — AbwV in the version published on 17 June 2004 [BGBl.
			I P.
			1108, 2625], most recently amended by Article 20 of the law of 31 July 2009 [BGBl. I P.
			2585]). The Waste Water Ordinance defines the minimum requirements that must be met in
			order to obtain permits for discharging waste water into bodies of water. It also sets forth the
			analysis and measuring procedure in tangible terms. The determination of COD is an part of the
			Waste Water Ordinance.
			It is complemented by the Act Pertaining to Charges Levied for Discharging Waste Water into
			Waters (Waste Water Charges Act [AbwAG] in the version published on 18 January 2005 [BGBl. I P. 114], most recently amended by Article 1 of the law of 11 August 2010 [BGBl. I P. 1163]),
			which defines the charges levied for discharging waste water (sewage, precipitate) into bodies
			of water. Under the provisions of § 3 Para. 1 AbwAG, the amount of the waste water charge
			varies according to the noxiousness of the waste water. COD is defined as a measurement
			parameter in the annex to § 3. EU Directive 91/271/EEC has also been assimilated into the
		1	parameter in the armox to § 5. to birective 51/2/1/the has also been assimilated into the



			corresponding legislation by other countries. There are currently no procedures for determining oxidisable substances except determination by potassium dichromate. The entire waste water treatment programme is controlled on the basis of COD. COD determination is the central, indispensable component of waste water treatment throughout Europe. For the reasons outlined above, it is not possible to issue a blanket prohibition of the use of potassium dichromate while there are no legal alternatives.
607	2011/09/07 19:08 File attached Confidential	Individual France	We ask ECHA for: □ Delaying the inclusion of chromates in the Annex XIV, □ Postponing the application dates and the sunset dates, □ Accepting an exemption from Annex XIV obligations for legacy programs.
604	2011/09/07 18:08 File attached	Individual France	Automated processes in surface treatment should be exempted, as well as activities covered by the IED directive. Please see the enclosed letter



597	2011/09/07 14:59	Company Germany	Exempted uses should be as follows: SU3, SU9, SU10, SU22, SU24, PC21, PROC3, PROC5, PROC8a, PROC9, PROC14, PROC15, PROC19, ERC2 Annual consumption: Less than 1000 kg
559	2011/08/29 14:16	Individual Germany	Use as laboratory chemicals should be exempted from registration. If not, there would be no more option for doing COD analysis of surface water, which is an obligatory testing method in various Eu countries. Production of Chromium(VI)-Standards for atomic spectrometry is another relevant use, which is needed to control the content of Chromium (VI) in any kind of samples of interest e.g. environmental samples or the analysis of articles. Without standards to calibrate analysers there will no analysis be possible to check, if the substance is used according to the EU regulations or not.
529	2011/08/11 17:04	MACHEREY- NAGEL GmbH & Co.KG Company Germany	COD is an important parameter for water quality (waste water treatment, environmental laws, ISO 15705 "Water quality – Determination of the chemical oxygen demand (ST-COD) – Small-scale sealed tube method"). Potassium dichromate is necessary for this analytical determination. COD test tubes contain dichromate up to 0.3% Cr, which is dissolved and used in a closed system (PC 21, PROC 15). The applicant gets no contact to the chemicals by regularly use (no hazard risk). The used test tubes will be returned to the manufacturer/supplier for authorised recycling. In our opinion this application fulfils an exemption from the authorisation requirement according to art. 58 (2). max. tonnage 100 kg per years



528	2011/08/11		1. Relevance of parameter COD
	12:57	Company	
528	2011/08/11 12:57 File attached	Company Germany	1. Relevance of parameter COD "In environmental chemistry, the chemical oxygen demand (COD) test is commonly used to indirectly measure the amount of organic compounds in water. Most applications of COD determine the amount of organic pollutants found in surface water (e.g. lakes and rivers), making COD a useful measure of water quality Many governments impose strict regulations regarding the maximum chemical oxygen demand allowed in wastewater before they can be returned to the environment. For example, in Switzerland, a maximum oxygen demand between 200 and 1000 mg/L must be reached before wastewater or industrial water can be returned to the environment. The basis for the COD test is that nearly all organic compounds can be fully oxidized to carbon dioxide with a strong oxidizing agent under acidic conditions" (WIKIPEDIA EN, Keyword "COD") The analysis of COD is essential to the environmental contamination control of rivers, lakes 2. Explanation: Why is it necessary to use potassium di-chromate? Potassium di-chromate (K2Cr2O7) is proven to be very effective in almost completely oxidizing almost all organic compounds. 3. Status of standardization The determination of COD is governed by national, European and the International Standards Organisation (ISO), e.g. DIN 38409-41/-43/-44, DIN ISO15705, ISO 6060. All these standards relating to COD utilize potassium di-chromate as essential chemical. 4. The role of E+H Conducta as manufacturer of COD-analyzers E+H Conducta is a manufacturer of online analyzers for the determination of COD. These analyzers are commonly used for monitoring of potable water treatment plants. E+H Conducta also supplies all needed reagents. The amount of potassium di-chromate used in application does not exceed 10 kg annually. 5. Our effort to minimize the risk of di-chromate for humans and the environment
			Our COD analyzer conducts online COD analysis automatically. The method of analysis is in such a way that neither the operator of the equipment nor the user of the chemicals are exposed to the them. The operator is not required to prepare the reagents from chemicals. No Cr6+ is being released to the environment.
			Additionally, the waste from chemical reactions are collected separately and contained dichromate is being reduced to Cr3+.
			The entire process starting from sampling a specimen, dosing the samples and reagents, chemical pulping, photometric identification, reduction of excess di-chromate to Cr3+ up to disposal is automated.
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525	2011/08/08 15:22	Company United Kingdom	Anodising, passivation of stainless steel, passivation of cadmium plating - processes are already subject to many different pieces of legislation including air sampling and health monitoring. Biological monitoring by the HSE has shown that median levels are equivalent to background levels (i.e. no exposure of workers). Authorisation will not further improve worker health & samp; safety or environmental protection. A significant loss of UK and EU manufacturing would result from authorisation because the substances will still be available for use outside the EU.
473	2011/07/05 18:06 File attached Confidential	Company United Kingdom	The Aerosapce Industry relies on many preparations containing this substance. The properties of Potassium Dichromate have a direct bearing on Air Safety. Alternatives are not as robust. The development of non chromated paints would need to go hand in hand with any possible alternatives. As a result it would be best to exempt Aerospace in the interest of air safety.
470	2011/06/15 17:10	Company Germany	The substance is used as control substance in OECD Test guidelines. As long as it has not been successfully substituted in these test guidelines, this use should be exempted from authorization.



IV - COMMENTS ON USES FOR WHICH REVIEW PERIODS SHOULD BE INCLUDED IN ANNEX XIV, INCLUDING REASONS FOR THAT:

#	Date (Attachment provided)	Submitted by (name, Organisation/MSCA)	Comment
1846	2011/09/15 00:03 File attached	Aerospace Industries Association of America	see attached.
		Industry or trade association United States	
1721	2011/09/14 18:05	Indestructible Paint Ltd. Company United Kingdom	The aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications. If safety critical applications of potassium dichromate are not accepted as being exempt from the requirements of Annex XIV, they should be subject to review after a suitable extended period of time. The review period should reflect the considerable time already taken in the search for alternatives. This allows suitable time for the completion of the necessary R&D and qualification programmes required for these demanding applications. Those applications of potassium dichromate which are not classified as safety critical, and which cannot therefore be considered for exemption from the requirements of Annex XIV, should be subject to review after a suitable period of, for example, 6 - 10 years, to establish whether suitable alternatives have been introduced or whether additional time is still required. It is essential that when this substance is subject to review, the performance of any alternative substances is considered both in terms of the performance specifications of the industry and the need to be compatible with corrosion protection treatments on existing and legacy airframe components. General Comment 1: Consider Delaying Prioritisation



The aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications. If this is unacceptable to ECHA, the longest possible timescales are requested to allow for alternatives to be identified, tested and qualified. It is essential to know whether current controls are adequately addressing the risk or whether additional controls are required. For this reason, it would be prudent to await the outcome of the latest batch of studies into the health effects of chromium (VI) compounds before making a decision on whether potassium dichromate should be added to Annex XIV. If the study recommends that additional equipment is required to achieve optimum control of the risks, this may have an impact on the desire to pursue a potential authorisation request. General Comment 2: Defer Prioritisation

The aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications. If this is unacceptable to ECHA, the longest possible timescales are requested to allow for alternatives to be identified, tested and qualified. Chromium (VI) compounds, of which potassium dichromate is an example, have a well known reputation as excellent corrosion protectives for aluminium components. Their use began in the 1930s and has continued to the present, giving an extensive period of experience and knowledge of their properties. They are currently and widely regarded as the most effective solutions available for the corrosion protection of aluminium airframes. They are extremely effective because of their ability to protect areas where damage has occurred. The development of alternative solutions, which do not contain potassium dichromate, has been the subject of Research and Development activities for a number of years, in some cases

been the subject of Research and Development activities for a number of years, in some cases 20+, and is continuing. It is exceptionally complex. The timescales for such programmes are extensive: typically it is necessary to identify a range of possible alternatives, complete initial screening tests to allow the best contenders to emerge, develop these into commercially viable solutions and then complete the qualification testing demanded by the aerospace industry. Qualification testing has to be completed against either internationally recognised performance standards or internal company standards, in order to satisfy the quality requirements of the industry.

The safety critical performance criteria that needs to be met has meant that alternatives have fallen well short. If an alternative is developed it must go through a rigorous program of testing including approvals from EASA (European Aviation Safety Agency) and FAA (Federal Aviation Administration). These are varied depending on the application and will require airworthiness testing.

For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted. Without this delay, it is



			anticipated that there will be extensive applications for authorisation to continue to use potassium dichromate when it appears on Annex XIV. The level of effort that will be expended in making these applications could be better employed in sorting out the qualification and introduction of alternatives. Similarly, the resources required at ECHA to deal with these applications could be better employed on other topics. An additional reason for deferring the prioritisation of potassium dichromate is the need to allow sufficient time for the formation of suitable consortia, involving actors from all parties concerned in the supply chain. These are essential if comprehensive applications are to be made for Authorisation. Given the complex nature of an application for Authorisation, and the likely need for negotiations involving value of existing background data and intellectual property rights, an extended period of time is required to allow consortia to be formed.
1694	2011/09/14 17:29 File attached Confidential	Company Germany	We support the position of the Aerospace and Defence Industries of Europe (ASD)



1645	2011/09/14 16:08 File attached Confidential	Company United Kingdom	We support the position of the Aerospace and Defence Industries of Europe (ASD)
1636	2011/09/14 16:00	Goodrich Corporation Company United States	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1632	2011/09/14 15:58	Goodrich Corporation Company United States	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.



1562	2011/09/14 14:32	The Boeing Company Company United States	The aerospace industry is heavily regulated by regional and international requirements. The development and implementation of replacement processes takes a considerable amount of time. Identifying workable review periods may hardly be efficient and priority should be given to justified exemptions. Nevertheless, in case of a critical safety application or where no proven alternative is foreseeable, it is important that any review period should take into account the considerable time already taken in the largely unsuccessful search for alternatives, allowing suitable and technically realistic timelines for the completion of the necessary R&D, qualification, and implementation throughout a well-distributed supply chain.
1427	2011/09/14 09:52	Goodrich Control Systems Ltd Company Canada	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1429	2011/09/14 09:52	Goodrich Control Systems Ltd Company United States	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.



1430	2011/09/14 09:52	Goodrich Control Systems Itd Company United Kingdom	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1431	2011/09/14 09:52	Goodrich Control Systems GmbH Company Germany	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1423	2011/09/14 09:51	Goodrich Pump and Engine Control Company United States	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.



1424	2011/09/14 09:51	Goodrich Corporation Company United States	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1418	2011/09/14 09:38	Crompton Technology Group Limited Company United Kingdom	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1419	2011/09/14 09:38	Microtechnica Srl Company United Kingdom	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.



1415	2011/09/14 09:37	PT Goodrich Pindad Aeronautical Systems Indonesia Company Indonesia	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1416	2011/09/14 09:37	Goodrich Actuation Systems SAS Company France	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1417	2011/09/14 09:37	Microtecnica Srl Company Italy	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.



1411	2011/09/14 09:36	Goodrich Corporation Company Japan	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1412	2011/09/14 09:36	Goodrich Actuation Systems Limited Company United Kingdom	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1413	2011/09/14 09:35	Goodrich Corporation Company United States	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.



1404	2011/09/14 09:18	Atlantic Inertial Systems Limited Company United Kingdom	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1405	2011/09/14 09:18	Rosemount Aerospace GmbH Company Germany	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1406	2011/09/14 09:18	Goodrich Aerospace Pte Ltd Company Singapore	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.



1401	2011/09/14 09:16	Rosemount Aerospace SARL Company France	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1398	2011/09/14 09:15	Rosemount Aerospace Inc Company China	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1399	2011/09/14 09:15	Atlantic Inertial Systems Inc Company United States	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.



1402	2011/09/14 09:15	Goodrich Control Systems Limited Company France	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1403	2011/09/14 09:15	Simmonds Precision Products Inc Company United States	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1395	2011/09/14 09:14	Rosemount Aerospace Inc Company United States	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.



1396	2011/09/14 09:14	Goodrich Corporation Company United States	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1400	2011/09/14 09:14	TEAC Aerospace Technologies Inc Company United States	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1390	2011/09/14 08:55	Goodrich Control Systems Limited Company United Kingdom	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.



1387	2011/09/14 08:54	Goodrich Control Systems Pte Ltd Company Australia	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1388	2011/09/14 08:54	Goodrich Aerospace Services SAS Company France	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1389	2011/09/14 08:54	Goodrich Control Systems Pte Ltd Company Singapore	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.



1391	2011/09/14 08:54	Goodrich TAECO Aeronautical Systems (Xiamen) Company Ltd Company China	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1385	2011/09/14 08:53	Goodrich Corporation Company United States	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1386	2011/09/14 08:53	Goodrich Corporation Company United Arab Emirates	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.



1380	2011/09/14 08:38	Goodrich Aerospace Europe GmbH Company Germany	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1382	2011/09/14 08:38	Rohr Aero Services Ltd Company United Kingdom	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1375	2011/09/14 08:37	Goodrich Corporation Company United States	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.



1378	2011/09/14 08:37	Rohr Aero Services Inc Company United States	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1379	2011/09/14 08:37	Rohr Inc Company United States	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1381	2011/09/14 08:37	Goodrich Aerospace Europe SAS Company France	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.



1373	2011/09/14 08:36	Goodrich Corporation Company United States	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1374	2011/09/14 08:36	Goodrich Aerospace Canada Ltd Company Canada	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1376	2011/09/14 08:36	Goodrich Krosno Company Poland	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.



1377	2011/09/14 08:35	Goodrich Corporation Company United States	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1319	2011/09/14 06:30	Goodrich Corporation Company United States	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of potassium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1228	2011/09/14 01:00	KLM Engineering & Maintenance Company Netherlands	If safety critical applications of potassium dichromate are not accepted as being exempt from the requirements of Annex XIV, they should be subject to review after a suitable period of time. The review period should reflect the considerable time already taken in the search for alternatives. This allows suitable time for the completion of the necessary R&D and qualification programmes required for these demanding applications. Those applications of potassium dichromate which are not classified as safety critical, and which cannot therefore be considered for exemption from the requirements of Annex XIV, should be subject to review after a suitable period of, for example, 2 years, to establish whether suitable alternatives have been introduced or whether additional time is still required.
1116	2011/09/13 18:06	Aerospec Defence and Security (ADS)	Comments On Uses For Which Review Periods Should Be Included In Annex XIV The aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications. If safety critical applications of potassium dichromate are



	File attached Confidential	Industry or trade association United Kingdom	not accepted as being exempt from the requirements of Annex XIV, they should be subject to review after a suitable extended period of time. The review period should reflect the considerable time already taken in the search for alternatives. This allows suitable time for the completion of the necessary R&D and qualification programmes required for these demanding applications. Those applications of potassium dichromate which are not classified as safety critical, and which cannot therefore be considered for exemption from the requirements of Annex XIV, should be subject to review after a suitable period of, for example, 6 - 10 years, to establish whether suitable alternatives have been introduced or whether additional time is still required. It is essential that when this substance is subject to review, the performance of any alternative substances is considered both in terms of the performance specifications of the industry and the need to be compatible with corrosion protection treatments on existing and legacy airframe components.
1359	2011/09/13 18:06 File attached Confidential	Industry or trade association United Kingdom	Comments On Uses For Which Review Periods Should Be Included In Annex XIV The aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications. If safety critical applications of potassium dichromate are not accepted as being exempt from the requirements of Annex XIV, they should be subject to review after a suitable extended period of time. The review period should reflect the considerable time already taken in the search for alternatives. This allows suitable time for the completion of the necessary R&D and qualification programmes required for these demanding applications. Those applications of potassium dichromate which are not classified as safety critical, and which cannot therefore be considered for exemption from the requirements of Annex XIV, should be subject to review after a suitable period of, for example, 6 - 10 years, to establish whether suitable alternatives have been introduced or whether additional time is still required. It is essential that when this substance is subject to review, the performance of any alternative substances is considered both in terms of the performance specifications of the industry and the need to be compatible with corrosion protection treatments on existing and legacy airframe components.



1094	2011/09/13 17:50	AgustaWestland Ltd Company United Kingdom	The aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications. If safety critical applications of potassium dichromate are not accepted as being exempt from the requirements of Annex XIV, they should be subject to review after a suitable extended period of time. The review period should reflect the considerable time already taken in the search for alternatives. This allows suitable time for the completion of the necessary R&D and qualification programmes required for these demanding applications. Those applications of potassium dichromate which are not classified as safety critical, and which cannot therefore be considered for exemption from the requirements of Annex XIV, should be subject to review after a suitable period of, for example, 6 - 10 years, to establish whether suitable alternatives have been introduced or whether additional time is still required. It is essential that when this substance is subject to review, the performance of any alternative substances is considered both in terms of the performance specifications of the industry and the need to be compatible with corrosion protection treatments on existing and legacy airframe components.
1063	2011/09/13 17:02 File attached Confidential	Company France	The aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications. If safety critical applications of potassium dichromate are not accepted as being exempt from the requirements of Annex XIV, they should be subject to review after a suitable extended period of time. The review period should reflect the considerable time already taken in the search for alternatives. This allows suitable time for the completion of the necessary R&D and qualification programmes required for these demanding applications. Those applications of potassium dichromate which are not classified as safety critical, and which cannot therefore be considered for exemption from the requirements of Annex XIV, should be subject to review after a suitable period of, for example, 6 - 10 years, to establish whether suitable alternatives have been introduced or whether additional time is still required. It is essential that when this substance is subject to review, the performance of any alternative substances is considered both in terms of the performance specifications of the industry and the need to be compatible with corrosion protection treatments on existing and legacy airframe components.



1036	2011/09/13 16:34	Company Germany	The aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications. If safety critical applications of potassium dichromate are not accepted as being exempt from the requirements of Annex XIV, they should be subject to review after a suitable extended period of time. The review period should reflect the considerable time already taken in the search for alternatives. This allows suitable time for the completion of the necessary R&D and qualification programmes required for these demanding applications. Those applications of potassium dichromate which are not classified as safety critical, and which cannot therefore be considered for exemption from the requirements of Annex XIV, should be subject to review after a suitable period of, for example, 6 - 10 years, to establish whether suitable alternatives have been introduced or whether additional time is still required. It is essential that when this substance is subject to review, the performance of any alternative substances is considered both in terms of the performance specifications of the industry and the need to be compatible with corrosion protection treatments on existing and legacy airframe components.
1010	2011/09/13 15:48 File attached	Aerospace and Defence Industries of Europe Industry or trade association Belgium	The aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications. If safety critical applications of potassium dichromate are not accepted as being exempt from the requirements of Annex XIV, they should be subject to review after a suitable extended period of time. The review period should reflect the considerable time already taken in the search for alternatives. This allows suitable time for the completion of the necessary R&D and qualification programmes required for these demanding applications. Those applications of potassium dichromate which are not classified as safety critical, and which cannot therefore be considered for exemption from the requirements of Annex XIV, should be subject to review after a suitable period of, for example, 6 - 10 years, to establish whether suitable alternatives have been introduced or whether additional time is still required. It is essential that when this substance is subject to review, the performance of any alternative substances is considered both in terms of the performance specifications of the industry and the need to be compatible with corrosion protection treatments on existing and legacy airframe components.



947	2011/09/13 14:01	Lufthansa Technik Aktiengesellschaf t Company Germany	If safety critical applications of potassium dichromate are not accepted as being exempt from the requirements of Annex XIV, they should be subject to review after a suitable period of time. The review period should reflect the considerable time already taken in the search for alternatives. This allows suitable time for the completion of the necessary R&D and qualification programmes required for these demanding applications. Those applications of potassium dichromate which are not classified as safety critical, and which cannot therefore be considered for exemption from the requirements of Annex XIV, should be subject to review after a suitable period of, for example, 2 years, to establish whether suitable alternatives have been introduced or whether additional time is still required.
852	2011/09/12 19:32 File attached	DALIC Company France	For most of the processes, previous and current research did not succeed completely and did not open new prospects of research. Chromium salts are still mainly used in Aeronautics, Navy and Defence; qualifications of new processes are for safety reasons, long, expensive and heavy. The length of the exemption or authorization must take in account these aspects.
835	2011/09/12 18:02 File attached	Company United Kingdom	The aerospace industry requests that potassium dichromate be exempt from Annex XIV of REACH for aerospace applications. If safety critical applications of potassium dichromate are not accepted as being exempt from the requirements of Annex XIV, they should be subject to review after a suitable extended period of time. The review period should reflect the considerable time already taken in the search for alternatives. This allows suitable time for the completion of the necessary R&D and qualification programmes required for these demanding applications. Those applications of potassium dichromate which are not classified as safety critical, and which cannot therefore be considered for exemption from the requirements of Annex XIV, should be subject to review after a suitable period of, for example, 6 - 10 years, to establish whether suitable alternatives have been introduced or whether additional time is still required. It is essential that when this substance is subject to review, the performance of any alternative substances is considered both in terms of the performance specifications of the industry and the need to be compatible with corrosion protection treatments on existing and legacy airframe components.



604	2011/09/07 18:08 File attached	Individual France	For most processes, previous research programs have failed and have not opened up avenues of research. Chromium salts are used for a large part in the aviation sector, the qualifications of the new processes are, for safety reasons, long, expensive and loaded. The duration of the permit must take into account these constraints
597	2011/09/07 14:59	Company Germany	10 years, due to the fact that national and international normations as specified in the "General comments" most likely will not be changed in a shorter period of time.
473	2011/07/05 18:06 File attached Confidential	Company United Kingdom	Every 5 years would be my recommended review period. This of course would be with a view to having suitable availabe alternatives in 5-8 years time.