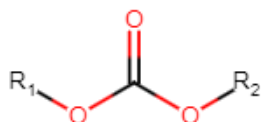


Assessment of regulatory needs

Authority: European Chemicals Agency (ECHA)

Group Name: Organic acyclic carbonates

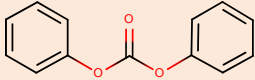
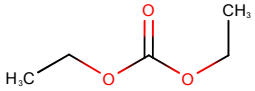
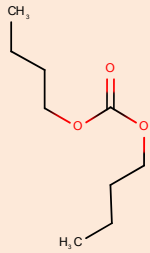
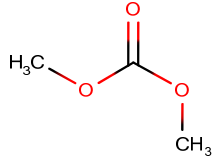
General structure:



Revision history

<i>Version</i>	<i>Date</i>	<i>Description</i>
1.0	18 September 2024	

Substances within this group: Table 1

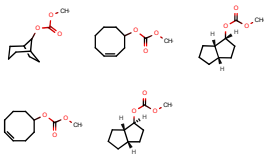
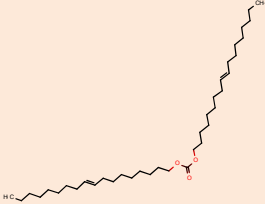
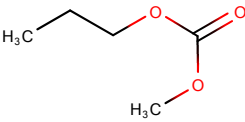
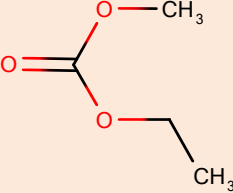
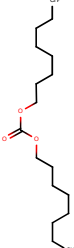
EC/List number	CAS number	Substance name or Substance name acronym	Chemical structures	Registration type (full, OSII or TII, NONS), highest tonnage band among all the registrations (t/y) ¹
203-005-8	102-09-0	Diphenyl carbonate		Full, >1000
203-311-1	105-58-8	Diethyl carbonate		Full, 100-1000
208-816-0	542-52-9	Dibutyl carbonate		Full, not (publicly) available
210-478-4	616-38-6	Dimethyl carbonate		Full, >1000

¹ Note that the total aggregated tonnage band may be available on ECHA's webpage at <https://echa.europa.eu/information-on-chemicals/registered-substances>

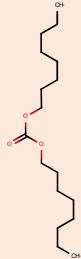
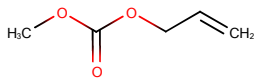
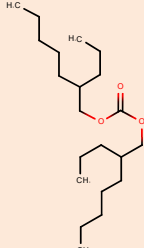
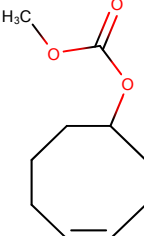
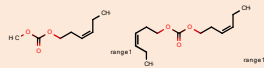
ASSESSMENT OF REGULATORY NEEDS

EC/List number	CAS number	Substance name or Substance name acronym	Chemical structures	Registration type (full, OSII or TII, NONS), highest tonnage band among all the registrations (t/y) ¹
238-925-9	14858-73-2	Bis(2-ethylhexyl) carbonate		Full, not (publicly) available
239-106-9	15022-08-9	Diallyl carbonate		OSII or TII
266-797-4	67633-96-9	cis-hex-3-en-1-yl methyl carbonate		Full, 1-10
267-184-4	67801-64-3	2-tert-butylcyclohexyl ethyl carbonate		Full, not (publicly) available
401-240-2	164907-75-9	Bis(C12-15-alkyl) carbonate		Full, not (publicly) available

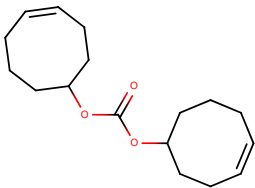
ASSESSMENT OF REGULATORY NEEDS

EC/List number	CAS number	Substance name or Substance name acronym	Chemical structures	Registration type (full, OSII or TII, NONS), highest tonnage band among all the registrations (t/y) ¹
401-620-8**	87731-18-8	Methoxycarbonyloxycyclooct-4-ene		Full, not (publicly) available
413-100-8	-	DOC		NONS
433-440-0	-	Methylpropylcarbonate		NONS
433-480-9	623-53-0	Ethyl methyl carbonate		Full, >1000
434-850-2* (considered duplicate to 605-498-9)	1680-31-5	Dioctyl carbonate		Full, >1000

ASSESSMENT OF REGULATORY NEEDS

EC/List number	CAS number	Substance name or Substance name acronym	Chemical structures	Registration type (full, OSII or TII, NONS), highest tonnage band among all the registrations (t/y) ¹
605-498-9* (Considered duplicate to 434-850-2)	1680-31-5	Carbonic acid, dioctyl ester		Not registered
468-750-5	35466-83-2	Allyl Methyl Carbonate		NONS
627-085-2	1238449-42-7	bis(2-propylheptyl) carbonate		Full, not (publicly) available
685-640-4**	87731-18-8	[No public or meaningful name is available]		C&L notification
942-106-8	-	Reaction mass of cis-hex-3-en-1-yl methyl carbonate and di-3Z-hexenylcarbonat		OSII or TII

ASSESSMENT OF REGULATORY NEEDS

EC/List number	CAS number	Substance name or Substance name acronym	Chemical structures	Registration type (full, OSII or TII, NONS), highest tonnage band among all the registrations (t/y) ¹
946-305-0	-	Di-(4)-cyclooct-4-en-1-yl carbonate		OSII or TII

This table contains also group members that are only notified under the CLP Regulation, however, the list is not necessarily exhaustive.

* When a dossier is submitted without EC number, REACH-IT automatically assigns a List number to the dossier. Sometimes, due to IT technical limitations, duplicate List numbers are created. In this GMT the following is considered a duplicate entry: EC 434-850-2 and List nr 605-498-9. In general, EC numbers take precedence over List numbers.

** EC 401-620-8 and List nr 685-640-4 can potentially refer to a duplicate entry but it is not possible to conclude at this stage.

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DISCLAIMER

The author does not accept any liability with regard to the use that may be made of the information contained in this document. Usage of the information remains under the sole responsibility of the user. Statements made or information contained in the document are without prejudice to any further regulatory work that ECHA, the Member States or other regulatory agencies may initiate at a later stage. Assessments of regulatory needs and their conclusions are compiled on the basis of available information and may change in light of newly available information or further assessment.

Foreword

The assessment of regulatory needs of a group of substances is an iterative, informal process to help authorities consider the most appropriate way to address an identified concern for a group of substances or a single substance and decide whether further regulatory risk management activities are necessary.

The grouping is mainly based on structural similarity and associations made by the registrants between substances through read-across and category approaches as well as category associations from external sources (e.g. OECD categories)². These methods are different from grouping as defined in Section 1.5 of Annex XI to REACH because the scope and intended use of ECHA's grouping is different. Thus, in this context, grouping does not aim to validate read-across and category approaches according to the Annex XI requirements but rather to support a faster and more consistent approach for regulating chemicals and avoid regrettable substitution.

The focus of the assessment is largely based on information available in the registration dossiers and on properties requiring regulatory risk management action at EU level³. The information reported on uses is from the registration dossiers (IUCLID) and is used as a proxy for assessing how widespread uses are and whether potential for exposure to humans and releases to the environment can be expected. The chemical safety reports are not necessarily consulted and no quantitative exposure assessment is performed at this stage.

The outcome of these assessments are proposals for immediate (the first action) and subsequent regulatory action(s), including the foreseen ultimate regulatory action (last foreseen regulatory action) to address the identified concern(s) in case the potential hazards are confirmed. For example, further data generation through compliance check is suggested as a first action, to confirm the identified hazard.

Where hazards are confirmed, regulatory risk management actions could be considered for the whole group, for a subgroup or for individual substances within the group. The robustness of the group depends on the stage of assessment and the level of certainty this stage requires. For example, the needs for grouping under restriction may differ from the needs for grouping for the purpose of harmonised classification. Group membership is reconsidered accordingly throughout the iterative assessment of regulatory needs, for example, after further information is generated and the hazard has been clarified or when new insights on uses and risks are available.

The assessment of regulatory needs in itself does not represent a regulatory action, but rather a preparatory step to consider further possible regulatory actions at the level of individual substances or groups/subgroups of substances.

² [Working with Groups - ECHA \(europa.eu\)](https://eucha.europa.eu)

³ Regarding hazard properties the focus is for instance on CMR (carcinogenic, mutagenic and/or toxic to reproduction), sensitiser, ED (endocrine disruptor), PBT/vPvB or equivalent (e.g. substances being persistent, mobile and toxic), aquatic toxicity hazard endpoints and therefore only those are reflected in the report. This does not mean that the substances do not have other known or potential hazards. In some specific cases, ECHA may consider additional hazards (e.g. neurotoxicity, STOT RE).

ASSESSMENT OF REGULATORY NEEDS

Publication of ARNs makes it easier for companies to follow the latest status of their substances of interest, anticipate potential regulatory actions and make strategic choices in their chemicals portfolio.

For more information on assessments of regulatory needs please consult ECHA's website⁴.

⁴ <https://echa.europa.eu/understanding-assessment-regulatory-needs>

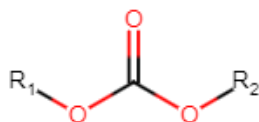
Glossary

ARN	Assessment of Regulatory Needs
CCH	Compliance Check
CLH	Harmonised classification and labelling
CMR	Carcinogenic, mutagenic and/or toxic to reproduction
DEv	Dossier evaluation
ED	Endocrine disruptor
NONS	Notified new substances
OEL	Occupational exposure limit
OSII or TII	On-site isolated intermediate or transported isolated intermediate
PBT/vPvB	Persistent, bioaccumulative and toxic / very persistent and very bioaccumulative
PMT/vPvM	Persistent, mobile, and toxic / very persistent and very mobile
RDT	Repeated dose toxicity
RMOA	Regulatory management options analysis
RRM	Regulatory risk management
SEv	Substance evaluation
STOT RE	Specific target organ toxicity, repeated exposure
SVHC	Substance of very high concern
TPE	Testing proposal evaluation
UVCB	Unknown or variable composition, complex reaction products or of biological materials.

1 Overview of the group

Explanations on the scope of this assessment is available in the foreword to this document. Please read it carefully before going through the report.

ECHA has grouped together structurally similar substances based on the presence of the carbonates moiety shown in the figure below. The carbonates are substituted by linear, branched, saturated, unsaturated, alicyclic and aromatic alkyl chains with carbon numbers from C1 to C15. Seventeen of the substances are well-defined mono-constituent or multi-constituent substances, and one is a UVCB substance. The group contains 18 substances where one pair of EC/List numbers is considered a duplicate (EC 434-850-2 and List number 605-498-9) and another pair could be potentially a duplicate (EC 401-620-8 and List number 685-640-4). Of the group of 18 substances: 12 have a full registration, 3 are intermediates, 3 are NONS. Regarding the considered (potential) duplicates, List number 605-498-9 is not registered and List number 685-640-4 is not registered and has a C&L notification.



Based on information reported in the REACH registration dossiers, many of the substances are used at industrial sites and by professionals and consumers as solvent and/or odour agent (fragrance) in washing and cleaning products, coatings, paints, thinners, paint removers, lubricants and greases and as an ingredient in cosmetics and personal care products.

Some of the substances are also used in industrial settings as an intermediate/monomer, plasticizer, solvent of plasticizer, processing aid/regulator and/or corrosion inhibitor in polymer preparations and compounds. Other reported uses at industrial sites are in the formulation and/or production of pharmaceuticals and electrolytes for batteries, use as solvent in textile dyes and impregnating products and in ink and toners.

Substance EC 210-478-4 is reported to be used at industrial sites in the formulation and/or production or use of adhesives, sealants, fillers, putties, plasters, modelling clay, finger paint, plant protection products, water treatment chemicals, and products such as pH-regulators, flocculants, precipitants, and neutralisation agents. Industrial use in biocidal products e.g. disinfectants, pest control and metal surface treatment products has been reported for substance EC 266-797-4, however, the registered tonnage is low.

Other reported uses by professionals and/ or consumers are in plant protection products, biocidal products e.g. disinfectants, pest control, air care products and polishes and waxes.

Article service life has been reported for some of the substances in polymer preparations, adhesives & sealants, coating and paints as well as in paper and board treatment products. Some substances are reported to be used in the production of electrolytes and therefore they could be present in batteries although article service life is not explicitly reported.

As a conclusion, the use of most of the substances in the group is widespread and the exposure and release potential is estimated to be high.

2 Conclusions and proposed actions

The conclusions and actions proposed in the table below are based mainly on the REACH and CLP information available at the time of the assessment by ECHA. The conclusions are preliminary suggestions from a screening-level assessment done by ECHA with the aim to propose the next steps for further work (e.g., strengthening of the hazard conclusions, clarification of the uses and/or potential for exposure). The main source of information is the registration dossiers. Relevant public assessments may also be considered. When new information (e.g., on hazards through evaluation processes, or on uses) will become available, the document may be updated, and conclusions and actions revisited.

Table 1: Conclusions and proposed actions

EC/List no	Human Health Hazard	Environmental Hazard	Relevant use(s) & exposure potential	Suggested regulatory actions
203-005-8 208-816-0 266-797-4 401-620-8	Known or potential hazard for skin sensitisation	Known or potential hazard for aquatic toxicity except for EC 401-620-8	<p>EC 203-005-8 has industrial use as intermediate/ monomer/ corrosion inhibitor reported. Limited potential for exposure for workers and consumers and release to environment.</p> <p>The other substances have widespread use in washing and cleaning products, cosmetics, polishes and wax blends, plant protection products, air care products, fragrances and perfumers, coatings and paints. Potential for exposure for both workers and consumers.</p>	<p>No action</p> <p>Currently no need for EU RRM</p> <p><u>Justification:</u> Harmonised/self-classification followed by implementation of necessary RRM should be sufficient to ensure safe use at the workplace. The concern related to the presence of skin sensitisers in consumer mixtures is under investigation.</p> <p>Harmonised/self classification followed by implementation of necessary RRM should be sufficient to ensure safe use for environment.</p>

ASSESSMENT OF REGULATORY NEEDS

EC/List no	Human Health Hazard	Environmental Hazard	Relevant use(s) & exposure potential	Suggested regulatory actions
210-478-4 433-480-9 434-850-2 203-311-1 238-925-9 627-085-2	No hazard or unlikely hazard	No hazard or unlikely hazard	Widespread use in washing and cleaning products, cosmetics, polishes and wax blends, lubricants and greases, air care products, pharmaceuticals. Potential for exposure for both workers and consumers.	CCH Currently no need for EU RRM <u>Justification:</u> Overall, no or unlikely hazard that would lead to concern for the reported uses Harmonised/self classification followed by implementation of necessary RRMs should be sufficient to ensure safe use of EC 267-184-4 for environment.
267-184-4		Known or potential hazard for aquatic toxicity		
401-240-2	No hazard or unlikely hazard	No hazard or unlikely hazard	Industrial use in lubricants and cleaning agents, potential for exposure for industrial workers.	No action Currently no need for EU RRM <u>Justification:</u> Overall, no or unlikely health hazard that would lead to concern for the reported uses Harmonised/self classification followed by implementation of necessary RRMs should be sufficient to ensure safe use for environment.
239-106-9	No hazard or unlikely hazard	No hazard or unlikely hazard	Intermediate use, low potential for exposure.	No action

ASSESSMENT OF REGULATORY NEEDS

EC/List no	Human Health Hazard	Environmental Hazard	Relevant use(s) & exposure potential	Suggested regulatory actions
942-106-8 946-305-0		Except for aquatic toxicity for EC 239-106-9		<p>Currently no need for EU RRM</p> <p><u>Justification:</u> According to the reported uses, low potential for exposure to both human health and environment is expected. Actions (including data generation) will be re-considered when the assessment will be revisited if the registration status and/or uses change.</p> <p>Harmonised/self classification followed by implementation of necessary RRM should be sufficient to ensure safe use for environment for EC 239-106-9.</p>
413-100-8 433-400-0 468-750-5	No hazard or unlikely hazard	No hazard or unlikely hazard	NONS registration, low potential for exposure.	<p>No action</p> <p>Currently no need for EU RRM</p> <p><u>Justification:</u> No reported uses, low potential for exposure to both human health and environment is expected. Actions (including data generation) will be re-considered when the assessment will be revisited if the registration status and/or uses change.</p>

3 Justification for the no need for regulatory risk management action at EU level

Currently no need to suggest (further) regulatory risk management actions for all substances

Based on ECHA's assessment of currently available hazard information in the registration dossiers and considerations of structural similarity and presence of common functional moiety, no relevant potential hazard was identified for human health for any of the substances in the group. Based on structural similarity the findings from the toxicity studies are extrapolated to the substances where there is limited information. These conclusions are based on the available data on the registered substances, the hypothesis of enzymatic hydrolysis and available information on the metabolites. Namely, negative experimental in vitro and in vivo genotoxicity studies available for most of the group members. Sub-chronic, screening, and reproductive toxicity studies in rat and rabbit are available for several group members, not revealing fertility or developmental effects of toxicological relevance. For diphenyl carbonate (EC 203-005-8), the available OECD HPV assessment⁵ based on the same set of data concluded that "the chemical is currently of low priority for further work because of its low hazard profile". The substance is authorised (with a specific migration limit) in the EU to be used as monomer/macromolecule in food contact materials.⁶ Dimethyl carbonate (EC 210-478-4) is also authorised for use in food contact materials (with certain restrictions).

There is some remaining uncertainty for the hazard of substances that upon metabolic hydrolysis can release methanol, ethanol, 2-propanol, phenol, and 2-ethylhexanol (SEv conclusion based on existing data do not warrant Repr. 1B). In general, the toxicity of these acyclic carbonates containing such moieties in their structure is expected to be lower than that of the corresponding breakdown products since higher doses of the parent compounds would be needed to reach equivalent toxic doses. Applying the potential hazard of these breakdown products to the parent compounds would be a worst-case assumption, as it is not known whether the metabolites of concern resulting from their hydrolysis will be systemically available at concentrations sufficient to cause toxic effects.

Three substances in the group have a classification as skin sensitiser (EC 208-816-0, EC 266-797-4, EC 401-620-8). Professional and consumer use of EC 208-816-0 in plant protection products is reported. The substance is also used in industrial settings in coatings and paints, thinners and paint removers. EC 266-797-4 and EC 401-620-8 are reported to be used by industrial workers as well as by professionals and consumers. The use is in many types of products e.g. in washing and cleaning products, cosmetics & personal care products, air care products, perfumes, fragrances and polishes and wax blends.

For industrial and professional uses, sufficient and consistent self-classification by registrants should require adequate risk management measures to be in place

⁵ SIDS Initial Assessment Report, Diphenyl carbonate (2004) available at: <https://hpvchemicals.oecd.org/UI/handler.axd?id=a3c09cef-56ac-42d3-98f8-2809592d4bed#:~:text=Human%20Health%20The%20acute%20dermal%20toxicity%20of%20diphenyl,in%20rats%20and%20rabbits%20%28no%20clinical%20signs%20noted%209.>

⁶ EU. Union List of Authorized Substances: Annex I, Plastics Food Contact Regulation 10/2011/EU, as amended by Regulation (EU) 2023/1627, OJ L 201, 11 August 2023.

according to workplace legislation.

Adequate product labelling should in principle provide consumers with sufficient information to manage risks arising from the use of mixtures containing the substances.

However, there is a concern related to skin sensitisers (potentially) present in consumer mixtures and the need to further investigate whether further regulatory actions are needed and what would be the best options to address this concern.

Such concern has already been identified in other groups of substances and was brought for further discussion to Member States. Work is ongoing on this generic issue by both Member States and ECHA which may affect the regulatory actions on substances in this group.

Therefore, it is proposed that there is currently no need for EU-wide regulatory risk management.

For the remaining substances in the group the available experimental data indicates no potential for skin sensitisation. The positive finding from skin sensitisation tests of three substances is not in line with the biology of organic acrylic carbonates having no functional group that would be expected to result in skin sensitisation potential. Therefore, we conclude that this hazard does not apply based on structural similarity to any of the other esters in the group. EC 401-620-8 contains a constituent with typical concentration 68% (CAS: 87731-18-8) with harmonised classification (Skin Sens. 1). The other two substances contain unknown impurities which could potentially explain the skin sensitisation properties.

The other substances have widespread uses in e.g. washing and cleaning products, polishes and wax blends, etc. where there is a high potential for release and exposure, however, no human health hazard is expected for them.

Regarding environment, five substances have known aquatic toxicity (based on acute aquatic testing, only), four with a harmonised classification and one has a notified classification for aquatic toxicity:

- EC 203-005-8 (high tonnage & water soluble) has a harmonised classification as Aquatic Chronic 2. (For EC 203-005-8, there is data gaps for long-term aquatic toxicity);
- EC 208-816-0 (low tonnage & water soluble) has a harmonised classification of Aquatic Chronic 3;
- EC 239-106-9 (OSII & water soluble) has a harmonised classification of Aquatic Acute 1;
- EC 266-797-4 (low tonnage & water soluble) has a C&L of Aquatic Chronic 2;
- EC 267-184-4 (medium tonnage & water soluble) has a harmonised classification as Aquatic Chronic 2;

It is expected that based on the harmonised classification registrants have implemented necessary RMMs to ensure safe use. Therefore, it is proposed that there is currently no need for EU-wide regulatory risk management.

Considering structural similarity and presence of common functional moiety and low potential hazard for long term aquatic toxicity to Daphnia, based on the available study for EC 210-478-4, it is considered that long term aquatic toxicity to Daphnia hazard for the group is low. However, as data density for long term aquatic toxicity is low, data generation is proposed for the following selected substances, both water soluble and low water-soluble substances: ECs 203-311-1, 210-478-4, 238-925-9, 434-850-2, and List 627-085-2.

ASSESSMENT OF REGULATORY NEEDS

Concerning the potential hazard for aquatic toxicity, it is expected that registrants would adequately self-classify the substance after compliance check, and then implement the relevant risk management measures which would be sufficient to ensure safe use in accordance with environmental legislation.

The substances in this group are unlikely to fulfil the PBT/vPvB screening criteria, because they are very likely readily biodegradable or very likely inherently biodegradable and/or have a low potential for bioaccumulation and/or are unlikely to fulfil the T criterion.

These conclusions are based on ready biodegradability test results, log Kow and acute and some long-term aquatic toxicity experimental data for some group member(s) present in the dossiers.

The substances in this group are unlikely to be persistent, mobile, and toxic.

These conclusions are based on ready biodegradability test results, Log Koc, and acute and some long-term aquatic toxicity experimental data for some group member(s).

Based on human health ED's conclusion of unlikely, we consider extrapolating the same conclusion with uncertainty to ED for the environment.

Therefore, it is proposed that there is currently no need for EU-wide regulatory risk management for environment.

Annex 1: Overview of classifications

Data extracted on 30 January 2022.

EC/ List No	CAS No	Substance name	Harmonised classification	Classification in registrations
203-005-8	102-09-0	diphenyl carbonate		Acute Tox. 4 H302 Aquatic Chronic 2 H411
203-311-1	105-58-8	diethyl carbonate		Flam. Liquid 3 H226
208-816-0	542-52-9	dibutyl carbonate		Eye Damage 1 H318 Skin Sens. 1B H317 Aquatic Chronic 3 H412
210-478-4	616-38-6	dimethyl carbonate	Flam. Liquid 2 H225	Flam. Liquid 2 H225
238-925-9	14858-73-2	bis(2-ethylhexyl) carbonate		Skin Irrit. 2 H315
239-106-9	15022-08-9	diallyl carbonate		Acute Tox. 3 H301 Flam. Liquid 3 H226 Aquatic Acute 1 H400
266-797-4	67633-96-9	cis-hex-3-en-1-yl methyl carbonate		Skin Irrit. 2 H315 Skin Sens. 1B H317
267-184-4	67801-64-3	2-tert-butylcyclohexyl ethyl carbonate		Aquatic Chronic 2 H411
401-240-2	-	bis(C12-15-alkyl) carbonate		-
401-620-8	-	methoxycarbonyloxycyclooct-4-ene	Skin Sens. 1 H317	Skin Sens. 1 H317
433-480-9	-	433-480-9		Flam. Liquid 2 H225
434-850-2	-	434-850-2		-

ASSESSMENT OF REGULATORY NEEDS

EC/ List No	CAS No	Substance name	Harmonised classification	Classification in registrations
468-750-5	-	468-750-5		-
627-085-2	1238449-42-7	bis(2-propylheptyl) carbonate		-
685-640-4	87731-18-8	685-640-4		-
942-106-8	-	Reaction mass of cis-hex-3-en-1-yl methyl carbonate and DI-3Z-HEXENYLCARBONATE		-
946-305-0	-	di-cyclooct-4-en-1-yl carbonate		-

Annex 2: Overview of uses based on information available in registration dossiers

Data extracted on 30 January 2022.

Main types of applications structured by product or article types	EC 203-005-8	EC 203-311-1	EC 208-816-0	EC 210-478-4	EC 238-925-9	EC 266-797-4	EC 267-184-4	EC 401-240-2	EC 401-620-8	EC 433-480-9	EC 434-850-2	List no 627-085-2
PC 20: Products such as ph-regulators, flocculants, precipitants, neutralis.ag.				F, I, P								
PC 37: Water treatment chemicals				I								
PC 27: Plant protection products			F, P, C	F, I								
PC 35: Washing and cleaning products				F, I, P, C	C	F, I, P, C	I, P, C	F, I	I, P, C	I	F, C	P, C
PC 8: Biocidal products e.g. disinfectants, pest control				C		F, I, P, C	C		C			
PC 28: Perfumes, fragrances				P, C		F, C	F, C		F, C	F, I	F, C	
PC 3: Air care products				C	C	F, C	C		C			
PC 39: Cosmetics, personal care products				P, C		P, C	C		C		F, I, C	P, C
PC 29: Pharmaceuticals		I		F, I, P, C						F, I	C	

ASSESSMENT OF REGULATORY NEEDS

Main types of applications structured by product or article types	EC 203-005-8	EC 203-311-1	EC 208-816-0	EC 210-478-4	EC 238-925-9	EC 266-797-4	EC 267-184-4	EC 401-240-2	EC 401-620-8	EC 433-480-9	EC 434-850-2	List no 627-085-2
PC 31: Polishes and wax blends				F, P, C		F, P, C	P, C		P, C			
PC 24: Lubricants, greases, release products								F, I			F, I, P, C	
PC 32: Polymer preparations and compounds	I	I		F, I, A					A	F, I		
PC 1: Adhesives, sealants				F, I, P, C, A								
PC 9c: Finger paint				F, I								
PC 9b: Fillers, putties, plasters, modelling clay				F, I								
PC 9a: Coatings and paints, thinners, paint removes		I	F, I	F, I, P, C, A						F, I	F	
PC 18: Ink and toners		I		F, I								
PC 26: Paper and board treatment products									A			
PC 34: Textile dyes, and impregnating products		I						I				
PC 14: Metal surface treatment products						I						
PC 21: Laboratory chemicals		I, P		F, I, P						I, P	F, I, C	

ASSESSMENT OF REGULATORY NEEDS

Main types of applications structured by product or article types	EC 203-005-8	EC 203-311-1	EC 208-816-0	EC 210-478-4	EC 238-925-9	EC 266-797-4	EC 267-184-4	EC 401-240-2	EC 401-620-8	EC 433-480-9	EC 434-850-2	List no 627-085-2
PC 19: Intermediate	I	I		F, I						F, I		
PC42: Electrolytes for batteries		F, I		F, I						F, I		

F: formulation, I: industrial use, P: professional use, C: consumer use, A: article service life; P, C and A are highlighted in red to indicate widespread use with potential for exposure/release

Annex 3: Overview of completed or ongoing regulatory risk management activities

There are no relevant completed or ongoing regulatory risk management activities for any of the substances.