

FORUM REF-4 PROJECT REPORT

Harmonised Enforcement Project on Restrictions

Version 1.0



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FORUM REF-4 PROJECT REPORT Harmonised Enforcement Project on Restrictions

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1. Executive summary

1.1 Content of the project

REF-4 was the fourth REACH-EN-FORCE project of the Forum. The aims of the project were to raise awareness of restrictions in REACH Annex XVII, to identify non-compliance related to restrictions in the EU-market, to follow-up with enforcement action and to achieve a greater degree of compliance and thus a greater degree of health and environmental protection.

There were 29 countries participating to the project and 27 of them reported their results in a way that they could be included in the combined results. From these 27 countries, 5 625 product checks were reported. These product checks covered 17 substances, 1 009 mixtures and 4 599 articles. The scope of the project was chosen by the Forum and it covered 14 different restriction entries in REACH Annex XVII. Some countries also checked other entries than those 14 and product checks on eight additional entries¹ were reported. These additional cases are also incorporated into the figures presented in this report.

Annex XVII entry	Substances	Products to be tested
5	Benzene	glues for consumers and professionals
6	Asbestos fibres	in articles
23	Cadmium and its compounds	plastic materials/packaging and other articles, brazing fillers and jewellery
27	Nickel and its compounds	jewellery and metal parts (e.g. buttons, zippers)
32	Chloroform	glues for consumers and professionals
43	Azocolourants and Azodyes	textile and leather articles
45	Diphenylether, octabromo derivative C12H2Br8O	substances and mixtures and articles
47	Chromium VI compounds	leather articles and cement
48	Toluene	adhesives and spray paints intended for supply to the general public
49	Trichlorobenzene	substances and mixtures
50	Polycyclic aromatic hydrocarbons (PAH)	articles for supply to the general public
51, 52	Phthalates	toys and childcare articles
63	Lead and its compounds	jewellery

Table 1 - Scope of the REF-4 project

The product checks were made during 2016, starting from March. Most of these were analytical tests to check the content of the restricted substances in mixtures or articles. 20 % of the products inspected were placed on the market via the internet. The highest number of products inspected were in distributing companies and importers. Products were also inspected from downstream users, such as producers of articles.

The types of products inspected included textiles, jewellery, plastic material, glues and spray paints, brazing fillers, toys and childcare articles.

This report contains information on the amounts and types of products tested, on results found and on the enforcement actions taken against the non-compliances.

¹ Entries 3 (hazardous liquid substances or mixtures), 11 (volatile esters of bromoacetic acids), 16 (lead carbonates), 17 (lead sulphates), 18 (mercury compounds) and 28, 29 and 30 (CMR-substances).

1.2 Main results and conclusions

There were in total 5 625 product checks done during the project. Most of them were executed by performing a chemical analysis of the content of a restricted substance in mixtures or articles. There were 1 009 mixtures and 4 599 articles checked and, in addition, 17 substance product checks.

82% of the products checked complied with the inspected REACH restrictions. The average non-compliance rate was 18%. This number is high considering that REACH restrictions have been assigned to uses of chemicals with the highest risks to health or the environment.

This non-compliance rate relates to 22 out of the 67 entries in Annex XVII only and therefore is only representative of the restrictions checked for the purposes of this project.

Phthalates, cadmium in brazing fillers and asbestos

The highest non-compliance rates in the scope of the project were with:

- Phthalates in toys for entry 51 (DEHP, DBP, BBP) in REACH Annex XVII; 19.7 % of the toy products checked were non-compliant, and for entry 52 (DINP, DIDP, DNOP): 10.4 % of toys were non-compliant. Phthalates in childcare articles were found in less than 10 % of products checked. In total, there were 1 202 phthalate checks in the project. The non-compliance rates found for phthalates are very high considering that the phthalates restriction has been provided to protect children from harmful chemicals and it has been in force for many years now.
 - o Phthalates are restricted in REACH Annex XVII, entries 51 and 52. It is prohibited to place toys and childcare articles on the market where the phthalates are in concentrations greater than 0.1 % by weight of the plasticised material (entry 51), and the toy or childcare article can be put in the mouth by children (entry 52).
- Cadmium in brazing fillers: 14.1% non-compliance rate with 86 tested mixtures.
 - o Cadmium is restricted in REACH Annex XVII entry 23 and it shall not be used in brazing fillers in concentrations equal to or greater than 0.01 % by weight. Brazing fillers shall not be placed on the market if the concentration of cadmium (expressed as Cd metal) is equal to or greater than 0.01 % by weight.
- Asbestos: 13.6 % of products checked were non-compliant. There were 213 asbestos checks of articles in the REF-4 project and 29 were found to be non-compliant. The resulting non-compliance rate is high considering that the asbestos restriction has been in force in the EU for many years. The non-compliant articles were mainly from the second-hand market and it is possible that the articles may have been produced before the restriction of asbestos fibres was in force. However, it is prohibited to place any asbestos containing products on the market.
 - Asbestos fibres are restricted in REACH Annex XVII, entry 6. It is prohibited to manufacture, place on the market and use these fibres and articles and mixtures containing these fibres added intentionally.
 - o Entry 6(2) of Annex XVII also provides a derogation to allow articles containing asbestos to continue to be used until they reach the end of their service life if they were already in service/installed before 1 January 2005. Member States have communicated such decisions to the Commission, which has made the information publicly

http://ec.europa.eu/growth/sectors/chemicals/reach/restrictions_en http://ec.europa.eu/DocsRoom/documents/13166/attachments/1/translations

Other bigger non-compliance rates were found with:

- Chromium (VI) in leather articles: 13.3 % non-compliance rate with 467 tested articles.
 - o Chromium (VI) is restricted in REACH Annex XVII entry 47: leather articles coming into contact with the skin shall not be placed on the market where they contain chromium VI in concentrations equal to or greater than 3 mg/kg (0.0003 % by weight) of the total dry weight of the leather.
- Nickel in metal parts of clothes: 11.1 % non-compliance rate with 27 tested articles).
 - Nickel is restricted in REACH Annex XVII entry 27: it is prohibited to place on the market articles intended to come into direct and prolonged contact with the skin if the rate of nickel release from the parts of these articles is greater than 0.5 μg/cm²/week. For post assemblies, which are inserted into pierced ears and other pierced parts of the human body, the migration limit is 0.2 μg/cm²/week.
- Polycyclic aromatic hydrocarbons (PAH): 7.9 % non-compliance rate with 382 tested articles.
 - o PAH compounds are restricted in REACH Annex XVII entry 50: articles shall not be placed on the market for supply to the general public, if any of their rubber or plastic components that come into direct as well as prolonged or short-term repetitive contact with the human skin or the oral cavity, under normal or reasonably foreseeable conditions of use, contain more than 1 mg/kg (0.0001 % by weight of this component) of any of the listed PAHs.

Problematic jewellery

All restricted heavy metals (nickel, cadmium and lead) were found from jewellery products tested around the EU/EEA area. There was a

6.7 % non-compliance rate with lead (meaning that 6.7 % of jewellery products tested contained lead above the restricted concentration limit), 7.9 % non-compliance rate with nickel and 12.1 % non-compliance rate with cadmium.

- Heavy metals in jewellery are restricted in REACH Annex XVII entries 23 (cadmium), 27 (nickel) and 63 (lead). The prohibitions are for:
 - Cadmium: shall not be used or placed on the market if the concentration is equal to or greater than 0.01 % by weight of the metal in: metal beads and other metal components for jewellery making, and in metal parts of jewellery and imitation jewellery articles and hair accessories.
 - o Nickel: it is prohibited to place on the market articles intended to come into direct and prolonged contact with the skin if the rate of nickel release from the parts of these articles is greater than 0.5 μ g/cm²/week. For post assemblies, which are inserted into pierced ears and other pierced parts of the human body, the migration limit is 0.2 μ g/cm²/week.
 - o Lead: shall not be placed on the market or used in any individual part of jewellery articles if the concentration of lead (expressed as metal) in such a part is equal to or greater than 0.05 % by weight. The restriction also applies to individual parts when placed on the market or used for jewellery-making.

Other

In addition there was an 88.5 % non-compliance rate in the 392 product checks for measuring devices. Most of the products checked for measuring devices contained mercury above the limit. This entry was enforced only by one country (the UK), but the results suggest that other

countries should also consider checking measuring devices for mercury. It is important to note that the UK findings from mercury were from individual sellers using online auction sites. This relatively high level of non-compliance detection is due to the inspector's use of alerts on online auction sites; these methods use Boolean searches² and allow enforcing authorities to target product checks at those article listings that indicate the presence of mercury.

- Mercury is restricted in REACH Annex XVII entry 18a: it shall not be placed on the market in fever thermometers or in other measuring devices.

There was only one reported check on a mixture containing a carcinogen restricted under entry 28 which was found to be non-compliant. There were eight checks for mixtures containing substances restricted under entry 30 with five of the mixtures (62.5 %) found to be non-compliant.

Very high non-compliance rate with products of unknown origin

When counting non-compliance on the basis of the origin of the product, the highest rate of non-compliance was with products imported from China (17 % of the products checked were non-compliant).

Products originating from the EU/EEA were non-compliant in 10 % of cases. The highest non-compliance rate (39 %) was observed for products whose origin could not be identified. It might thus be a reason to allocate enforcement actions to products with no marking about the origin.

Conclusions

The results from this enforcement project show that there are significant amounts of non-compliant products – products containing restricted substances – on the EU/EEA market. As the non-compliance relating to REACH restrictions is not something that can be seen by just looking at the product, the only way to get into more compliance is to influence and enhance the responsibility of companies in the supply chain.

They need to get information on the chemical composition of products they buy from their suppliers, and they need to have such agreements in force in the supply chain, that it is not worth selling non-compliant products further in the supply chain. In addition, the enforcement authorities need to continue enforcing the REACH restrictions by analysing products on the market.

More detailed results can be found in Chapter 2 of this report.

1.3 Main recommendations resulting from the project

The project results provided an average non-compliance rate of 18 % for the 22 REACH restrictions that were enforced during the REF-4 project. The two entries with the highest rates of non-compliance were phthalates in toys and cadmium in brazing fillers. There were also entries where all checked products were found to be compliant (for example, volatile esters of bromoacetic acid).

Recommendations for the enforcement authorities

The enforcement authorities need to concentrate their efforts on the actions that provide most benefit to society: health and environmental protection for people and the environment. Enforcement also aims to level the playing field for the companies with no space for free-

² A search using a combination of search terms and modifiers such as AND, OR and NOT to produce more relevant results.

riders.

As there are numerous provisions in REACH and other chemicals legislation, the efforts of the national authorities may need to focus on and prioritise those restriction entries where non-compliance rates are higher and the risk arising from the non-compliance is high. On the basis of the REF-4 enforcement project, these could be REACH restrictions for asbestos, cadmium, nickel, phthalates, mercury, chromium (VI), heavy metals in jewellery and PAH compounds.

The non-compliance rate was very high (39 %) for those products that did not contain a marking of origin in their label, or the origin could not be found out otherwise. The enforcement authorities could target their enforcement to this kind of products when doing risk based enforcement.

As chemical analysis is the only certain way to prove the non-compliance in provisions relating to content limits of chemicals, companies and enforcing authorities need to have systems in place to allow them to test chemicals.

The Forum has prepared a Compendium of analytical methods, to be used as a reference when checking compliance with REACH restrictions³. This compendium should be further promoted between the national enforcement authorities (NEAs). It should also be developed further and kept updated when new methods and information are generated.

There is also a recommendation to organise national and EU-wide campaigns to raise awareness of the restrictions. This recommendation could be taken over by ECHA.

Recommendations relating to the cooperation of the national enforcement authorities and the customs authorities

The development of unique CN-codes for all substances, mixtures or articles restricted by Annex XVII of REACH would, to a large extent, facilitate the related checks and the procedural involvement of customs. Specific recommendations from inspectors refer that, apart from the above, exemptions from the restrictions should also be related to specific CN codes.

Obtaining useful information from national customs databases seems not to be an easy and routine task for all NEAs. Easier and more streamlined procedures should be established for the REACH NEAs to get information from their customs authorities.

More common enforcement projects between the REACH NEAs and the customs authorities are needed to further enhance this type of cooperation.

Recommendations to companies

Compliance with the REACH restrictions is the duty of all actors responsible for placing chemical products or articles on the European market. The responsible actor is thus the supplier of the product in all steps in the supply chain.

Companies placing chemicals or articles on the market that may contain substances restricted in REACH Annex XVII should pay a lot of attention to making sure that they know their products and their own suppliers. This may also need proactive testing of the products and agreements between suppliers to ensure that the chemical composition of the products in the supply chain is in accordance with the chemicals legislation.

³ Link to the ECHA website for the Compendium of analytical methods: https://echa.europa.eu/about-us/who-we-are/enforcement-forum/enforceability-of-restrictions.

Good cooperation with the national enforcement authorities in enforcement cases is essential. Companies should also have systems in place to ensure that if something non-compliant is found in their portfolio, they can act rapidly and effectively to correct the non-compliant situation. It could be relevant to also agree who in the supply chain is responsible for the costs of withdrawal etc. if a non-compliance is found. Companies could also have practices in place to check the RAPEX system⁴ regularly, to get information on non-compliant products found on the market.

The REACH Annex XVII restrictions are provided in the legislation because the substances restricted pose a risk to health and/or the environment in the use that is restricted. Preventing this risk is the dutyholder's task and it should be taken seriously in all steps in the supply chain. From the view of the REF-4 enforcement project, there seems to be a lot to do in this respect.

Detailed results of the project

1.4 General overview

There were 29 countries participating in the project, with 27 countries reporting in time and in the format provided for reporting of this project. The information from two countries that are not incorporated in the total figures of this report is mentioned separately.

As there were 5 625 reported product checks, the figures found below provide a lot of information on the compliance situation in the EU market relating to the 14 (in the scope of the project) + eight (additional entries outside of the project) REACH restriction entries.

The specific 14 restrictions of Table 1 were chosen to be checked under this project due to the high non-compliance rates observed in previous national enforcement campaigns in Member States and due to the related increasing number of notifications in RAPEX and ICSMS systems.

In addition, one reason for choosing the entries in the scope was that there were recommended analytical methods for the restrictions. It should however be kept in mind that there are now a total of 67 restriction entries in REACH Annex XVII. The results of this project are thus only related to 22 of the 67 restrictions in REACH.

1.5 Coordination of the project

The project was prepared by a Working Group of the Forum and steered by the Forum. A national coordinator was nominated to the project by each participating country. The task of the national coordinator was to first nationally provide information and guidance on the project methodology, timing and targeting and then collect information on the national results and report it to the Forum Working Group for the reporting provided in this report. The report has been prepared by the WG, consulted with the Forum and the national coordinators and approved by the Forum.

⁴ Rapex is an EU-wide portal of products found on the market posing serious risk to health and/or the environment,

See:

https://ec.europa.eu/consumers/consumers_safety/safety_products/rapex/alerts/repository/content/pages/rapex/index_en.htm.

1.6 Participation and number of product checks

There were 29 countries participating to the project, with 27 countries reporting in the standardised format. The combined results in this report thus cover information from the enforcement in 27 reporting countries.

Member	Inspected		Inspected
State	products	Member State	products
Austria (AT)	16	Italy (IT)	239
Belgium		Lichtenstein	
(BE)	516	(LI)	10
Bulgaria			
(BG)	48	Lithuania (LT)	15
		Luxembourg	
Cyprus (CY)	111	(LU)	91
Czech			
Republic			
(CZ)	162	Latvia (LV)	11
Germany		The Netherlands	
(DE)	1 757	(NL)	148
Denmark			
(DK)	87	Norway (NO)	253
Estonia (EE)	66	Poland (PL)	250
Greece (EL)	338	Portugal (PT)	33
Spain (ES)	138	Sweden (SE)	467
Finland (FI)	183	Slovenia (SI)	20
Croatia (HR)	40	Slovakia (SK)	59
Hungary		United Kingdom	
(HU)	50	(UK)	444
Ireland (IE)	73		
Total	5 625		

Table 2 - Number of products inspected by each country

In addition to the results provided elsewhere in this report there were the following results from product checks done in France, Romania and the United Kingdom that are not part of the combined results:

- In France, the product checks covered all the restriction entries in the scope of the project with altogether 1 471 products checked and 514 non-compliant cases found. The highest non-compliance rate was in nickel and lead in jewellery: 40.5 %. In all other product checks, there was a very low non-compliance rate.
- In Romania, the product checks covered nearly all the restriction entries (except lead and asbestos) in the scope of the project with 108 checked products. No non-compliances were found in the product checks.
- The UK provided additional information to those product checks that are already covered by this report. On these additional product checks, 95 jewellery products were all tested for heavy metals, and the non-compliance rates found were very high: 22.1 % for nickel, 35.7 % for cadmium and 44.2 % for lead. The UK had also tested 157 samples of leather goods (bracelets, fashion gloves, baby shoes and protective gloves) for the presence of aromatic amines derived from azodyes (restriction 43) and chromium VI (restriction 47). 12.1 % of the products breached the chromium VI restriction and 3.8 % the azodyes restriction.

- All other results from the 27 participating countries are incorporated in the combined results provided in this report.

Distribution of the inspected products (substances, mixtures and articles):

o Total number of substances: 17 substances

o Total number of mixtures: 1 009 mixtures

o Total number of articles: 4 599 articles

Distribution of the total number of inspected products covered by the relevant entries (table 3). One inspected product could have been checked for different entries

Entry	Description	Substan ce	Mixtur e	Articl e	Sum
5	Benzene in glues for consumers and	30			Odim
	professionals	5	482	44	531
6	Asbestos fibres in articles	0	0	213	213
23	Cadmium and its compounds in plastic				
	materials/packaging and other articles,	2	0.7	1 700	701
23	brazing fillers and jewellery	2	87	1 702	791
23	Brazing fillers	0	86	13	99
23	Plastic materials	2	0	478	480
23	Jewellery	0	1	1 133	134
23	Other	0	0	54	54
27	Nickel and its compounds in jewellery				1
	and metal parts (e.g. buttons, zippers)	0	1	1 025	026
27	Jewellery	0	0	888	888
27	Metal parts (e.g. buttons, zippers)	0	0	27	27
27	Other	0	1	62	63
32	Chloroform in glues for consumers and professionals	4	444	33	481
Entry	professionals	Substan	Mixtur	Articl	401
	Description	се	е	е	Sum
43	Azocolourants and azodyes in textile and				
43	leather articles	0	1	460	461
	Leather articles	0	1	60	61
43	Textiles	0	0	399	399
45	Diphenylether, octabromo derivative				
	C12U2Br90 (substances and mixtures				
	C12H2Br8O (substances and mixtures and articles)	0	0	25	25
47	C12H2Br8O (substances and mixtures and articles) Chromium VI compounds in leather	0	0	25	25
	and articles)	0 2	0 221	25 467	25 690
47	and articles) Chromium VI compounds in leather	-			
47	and articles) Chromium VI compounds in leather articles and cement Cement Leather articles	2	221	467	690
47	and articles) Chromium VI compounds in leather articles and cement Cement Leather articles Toluene in adhesives and spray paints	2 2 0	221 221 1	467 2 467	690 225 468
47 47 48	and articles) Chromium VI compounds in leather articles and cement Cement Leather articles Toluene in adhesives and spray paints intended for supply to the general public	2 2 0	221 221 1 514	467 2 467 47	690 225 468 563
47	and articles) Chromium VI compounds in leather articles and cement Cement Leather articles Toluene in adhesives and spray paints	2 2 0	221 221 1	467 2 467	690 225 468

49	Trichlarahanzana (auhatanasa and				
49	Trichlorobenzene (substances and mixtures)	0	17	0	17
50	Polycyclic-aromatic hydrocarbons (PAH)				
	in articles for supply to the general				
	public	0	3	382	385
51	Phthalates (DEHP, DBP, BBP) in toys and		4		700
E4	childcare articles	0	1	699	700
51	Toys	0	1	463	464
51	Childcare articles	0	0	193	193
52	Phthalates (DINP, DIDP, DNOP) in toys				
	and childcare articles	0	1	501	502
52	Toys	0	1	327	328
52	Childcare articles	0	0	129	129
63					1
	Lead and its compounds in jewellery	0	1	1 172	173
	Other entries from Annex XVII covered				
	by the product checks undertaken in				
	participating countries	7	58	424	489
3	Hazardous liquid substances or mixtures	0	0	3	3
11	Volatile esters of bromoacetic acids	0	0	16	16
16	Lead carbonates	0	41	1	42
17	Lead sulphates	0	1	0	1
18	Mercury compounds	2	1	392	395
28	Carcinogens	0	2	0	2
29	Mutagens	0	1	0	1
30	Reprotoxic	5	3	0	8
Not					
specifi ed		0	9	12	21

Table 3 Distribution of the number of products (substances, mixtures, articles) checked for different entries.

The entry with the highest number of inspected products is the cadmium restriction followed by the lead in jewellery and the nickel restriction (Figure 1)

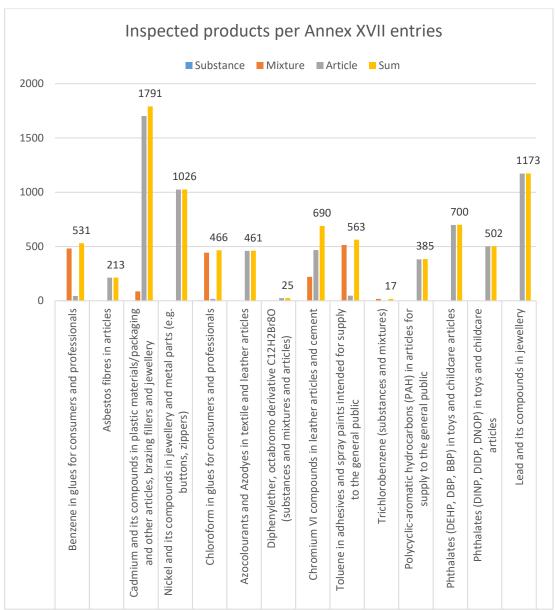


Figure 1

Note: top1: cadmium restriction, top 2: lead in jewellery, top 3: nickel restriction.

Categories of products inspected for each restriction entry when different options possible (Fig.2, Fig.3, Fig.4, Fig.5, Fig.6, Fig.7 and Fig.8).

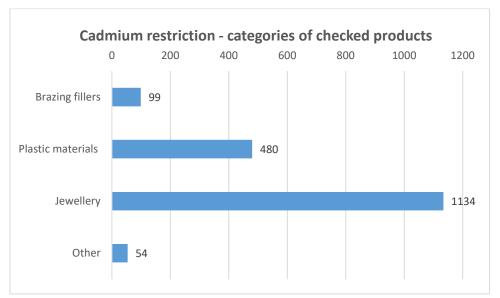


Figure 2 – categories of products checked under the cadmium restriction

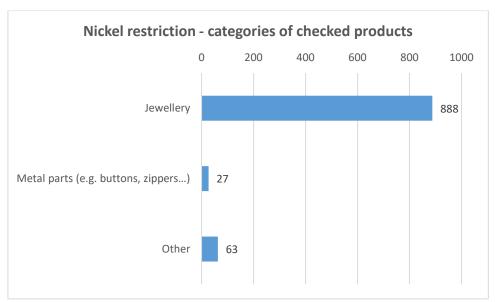


Figure 3 – categories of products checked under the nickel restriction

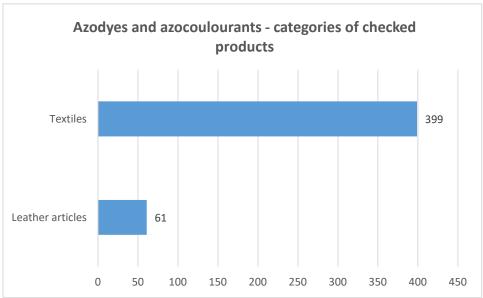


Figure 4 – categories of products checked under the azodyes and azocolourants restriction

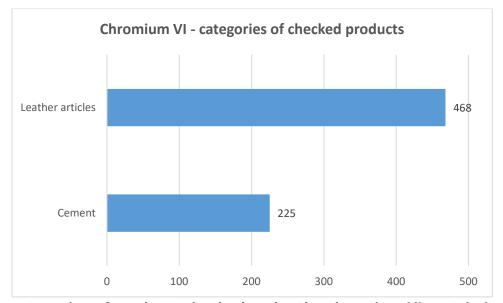


Figure 5 – categories of products checked under the chromium VI restriction

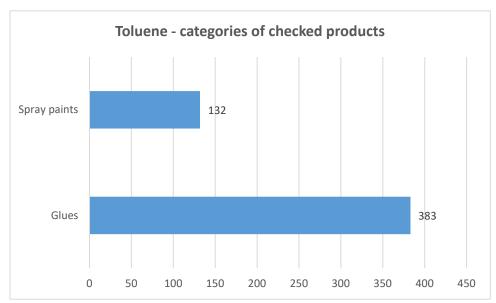


Figure 6 - categories of products checked under the toluene restriction

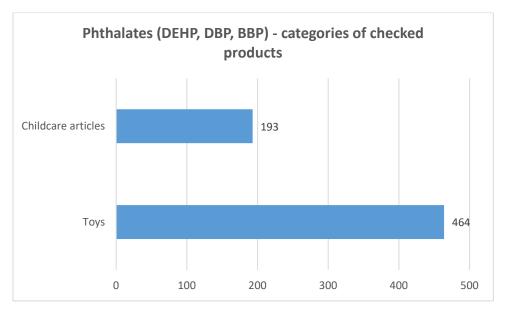


Figure 7 – categories of products checked under the phthalates (entry 51) restriction

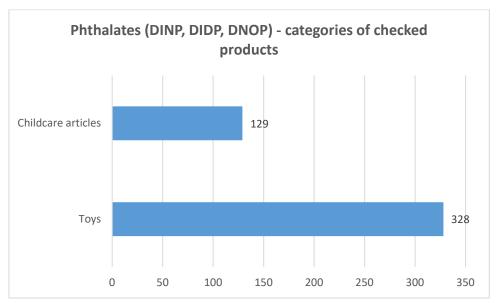


Figure 8 - categories of products checked under the phthalates (entry 52) restriction

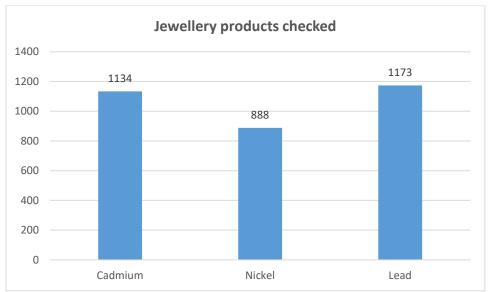


Figure 9 - Jewellery products checked for Cadmium, Nickel, Lead

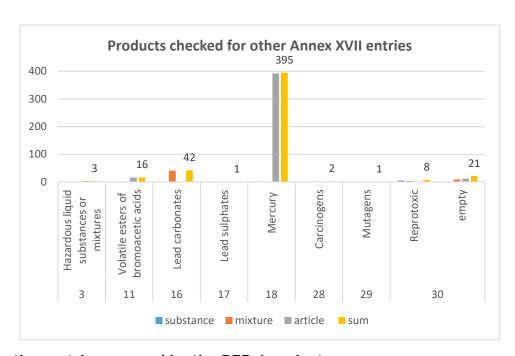


Figure 10 – other entries covered by the REF-4 project

· Distribution of inspected products placed on the market via internet

Distribution of products placed on the market via internet

Yes 1

Total	5 625
n/a	759
No	3 751

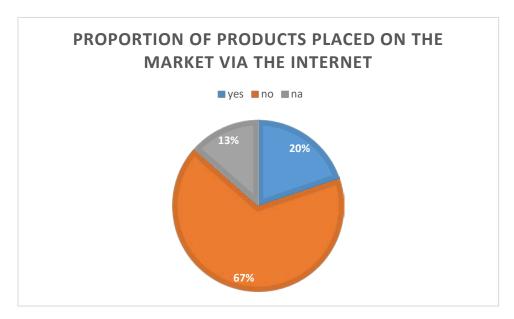


Figure 11 – proportion of products placed on the market via internet

Note: 20 % of the products inspected were placed on the market via the internet.

Origin of the products inspected (Table 4)

1.6. Origin of the products

David abole	Count
Row Labels	I_6
EEA/EU	1 616
US	37
China	1 870
Other Asian countries	345
Other countries	633
(blank)	1 124
Grand Total	5 625

Table 4

Note: top 1 origin of inspected products: China, follows EEA/EU.

Way the compliance of the products was checked (Fig. 12)

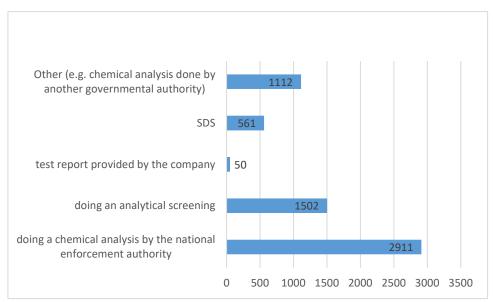


Figure 12 Ways for checking compliance of products

Note: top 1 way of checking compliance: by doing a chemical analysis.

1.7 Type of companies targeted by the project

 Role of the company under REACH (manufacturers (M), importers (I), downstream users (DU), distributors (DIS)) and products checked in each category of company (Fig. 13)

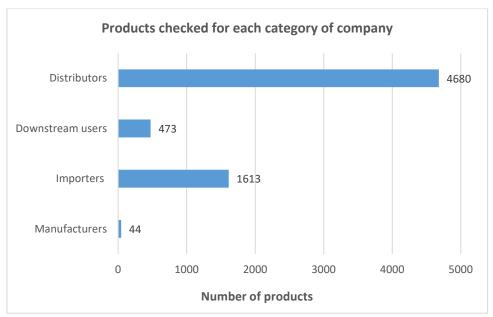


Figure 13 Number of products checked for each category of company

Note: highest number of products checked in distributors' companies.

 Distribution of products checked by different types of downstream users (formulators of a mixture, producers of an article, end users, other type of downstream users) (Fig. 14)

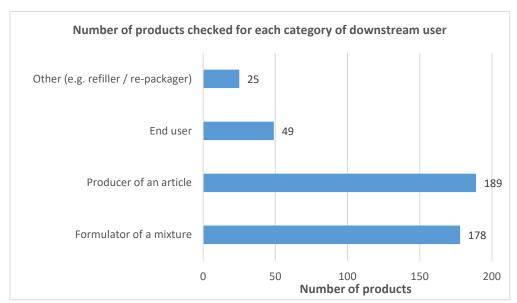


Figure 14 Number of products checked for each category of downstream users

Note: highest number of products checked in producers of articles and formulators of mixtures.

• Distribution of products checked by different types of distributors (retailers, wholesalers, other type of distributors).

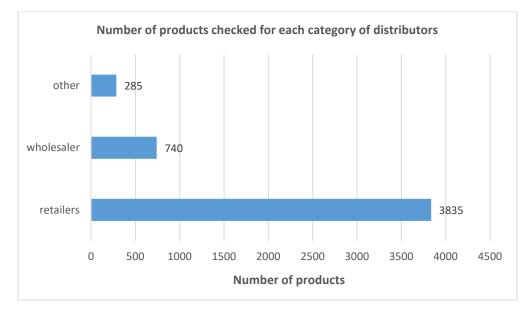


Figure 15 Number of products checked for each category of distributors

Note: highest number of products checked in retailers.

1.8 Legal obligations

The legal obligation within the scope of the REF-4 project is the verification of compliance with Article 67(1) of the REACH Regulation which stipulates that a substance on its own, in a mixture or in an article, for which Annex XVII contains a restriction shall not be manufactured, placed on the market or used unless it complies with the conditions of that restriction.

1.9 Infringements

• Total number of non-compliant products inspected (Fig. 16)



Figure 16 - Distribution of compliance

Note: 1 014 inspected products found to be non-compliant.

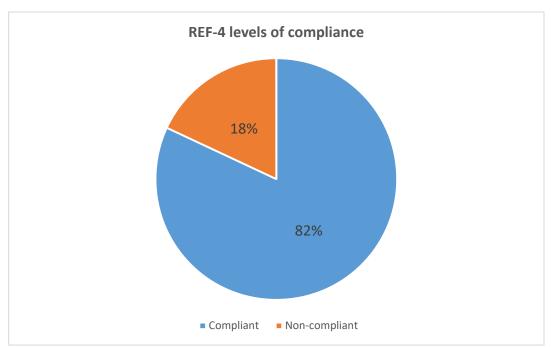


Figure 17 Distribution of the levels of compliance found for the inspected products

Note: 18 % of products found to be non-compliant according to REACH Annex XVII conditions.

Number of non-compliant products vs. their origin

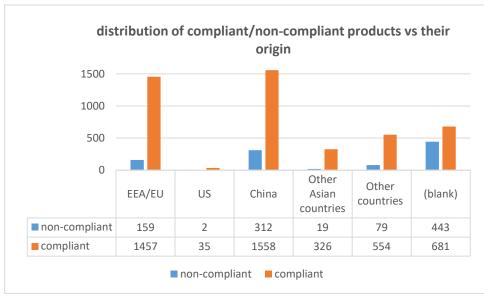


Figure 18

Note: the highest number of non-compliant products from a determinable origin is from China, followed by the EU/EEA. "Blank" refers to products with an origin that could not be identified.

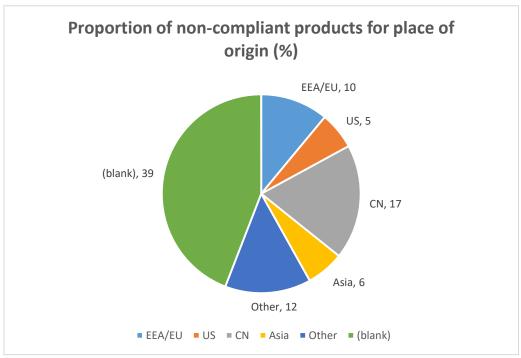


Figure 19

- Distribution of the total number of compliant and non-compliant products (Figure 20) including:
 - o Number of compliant and non-compliant substances (S).
 - o Number of compliant and non-compliant mixtures (M).
 - o Number of compliant and non-compliant articles (A).

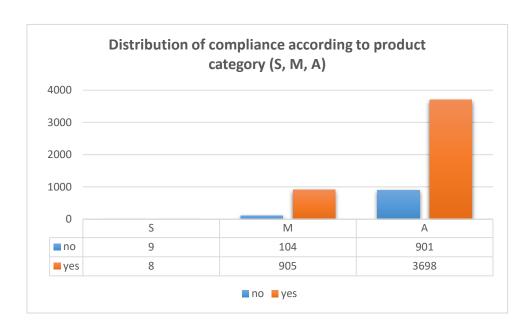


Figure 20

Note: articles had the highest number of non-compliant products.

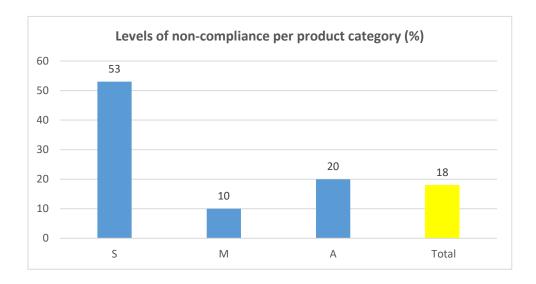


Figure 21

Note: substances followed by articles have the highest percentage of non-compliance over checked products in the same category.

- Distribution of non-compliant products per Annex XVII entries (Table 5), including:
 - o The distribution of non-compliant substances per Annex XVII entry.
 - o The distribution of non-compliant mixtures per Annex XVII entry.
 - o The distribution of non-complaint articles per Annex XVII entry.

Ent ry	Description	Product s checked	Non- complia nt products	Ratio of non- complianc e (%) ⁵
5	Benzene in glues for consumers and professionals	531	4	0.8
6	Asbestos fibres in articles	213	29	13.6
23	Cadmium and its compounds in plastic materials / packaging and other articles, brazing fillers and jewellery	1 791	178	9.9
23	Brazing fillers	99	14	14.1
23	Plastic materials	480	24	5.0
23	Jewellery	1 134	137	12.1
27	Nickel and its compounds in jewellery and metal parts (e.g. buttons, zippers)	1 025	83	8.1

⁵ The ration of non-compliance as a percentage is calculated as the number of non-compliant products over the total number of products checked for a certain entry.

27	Jewellery	888	70	7.9
27	Metal parts (e.g. buttons, zippers)	27	3	11.1
27	Other	62	10	16.1
32	Chloroform in glues for consumers and professionals	466	24	5.2
43	Azocolourants and Azodyes in textile and leather articles	461	5	1.1
43	Leather articles	61	2	3.3
43	Textiles	399	3	0.8
45	Diphenylether, octabromo derivative C12H2Br8O (substances and mixtures and articles)	25	0	0
47	Chromium VI compounds in leather articles and cement	690	72	10.4
47	Cement	225	9	4.0
47	Leather articles	468	62	13.2
48	Toluene in adhesives and spray paints intended for supply to the general public	563	21	3.7
48	Toluene in glues	383	14	3.7
48	Toluene in spray paints	132	7	5.3
49	Trichlorobenzene (substances and mixtures)	17	0	0
50	Polycyclic-aromatic hydrocarbons (PAH) in consumer articles for supply to the general public		30	7.8
51	Phthalates (DEHP, DBP, BBP) in toys and childcare articles	700	98	14
51	Toys	464	91	19.6
51	Childcare articles	193	7	3.6
52	Phthalates (DINP, DIDP, DNOP) in toys and childcare articles	502	46	9.2
52	Toys	328	34	10.4
52	Childcare articles	129	12	9.3
63	Lead and its compounds in jewellery	1 173	79	6.7

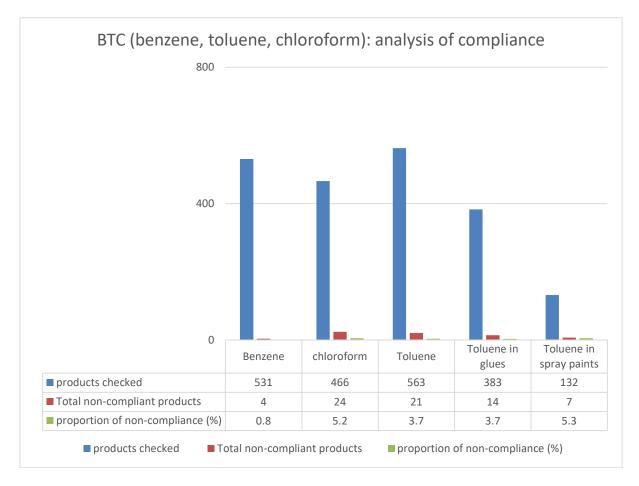
Table 5 – non-compliant products and ratios of non-compliance

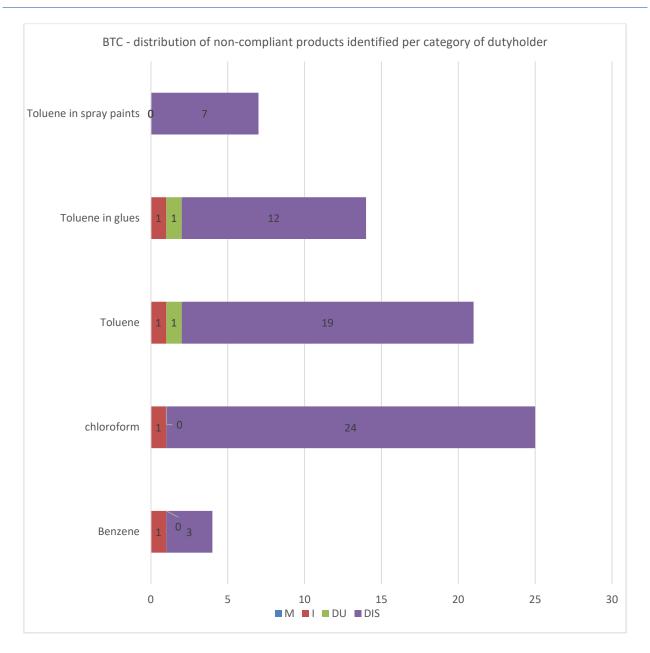
Note: the highest number of non-compliant products was for the cadmium restriction followed by the phthalates entry 51.

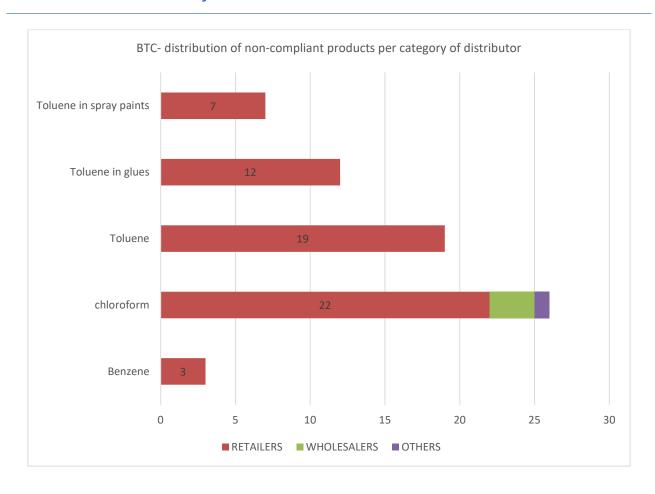
Note: the highest ratio of non-compliant products (%) was for entry 51 phthalates followed by the asbestos restriction.

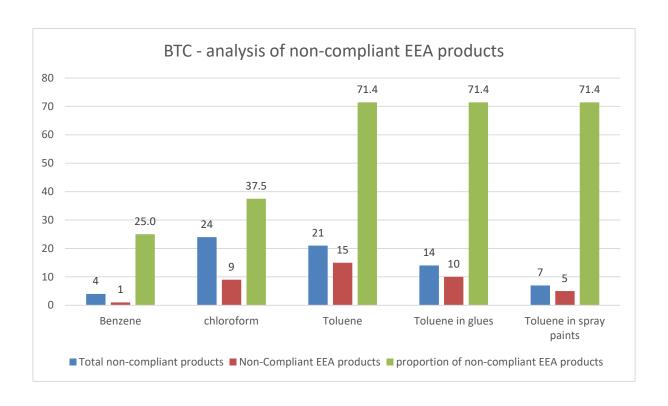
Detailed analysis of non-compliance.

• Benzene, toluene, chloroform (BTC)

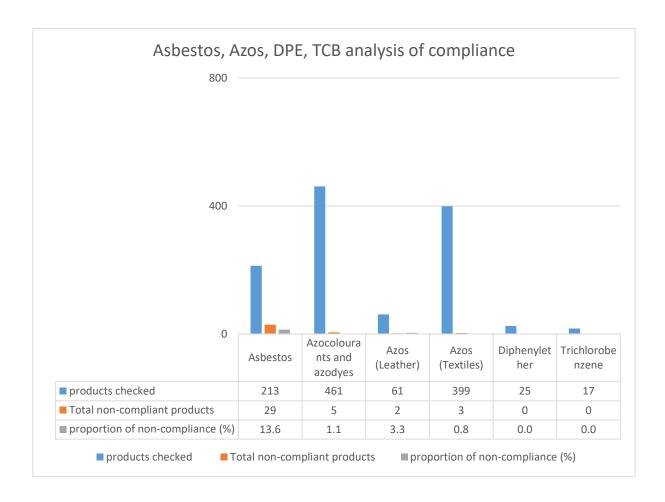


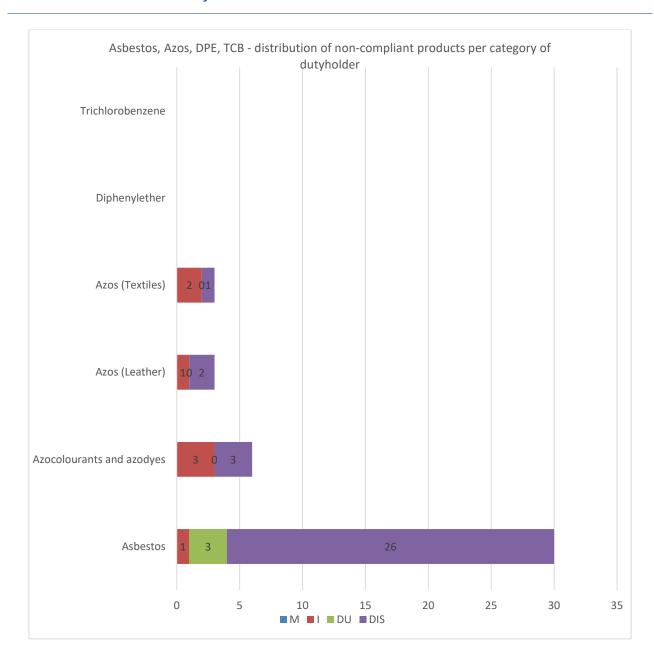


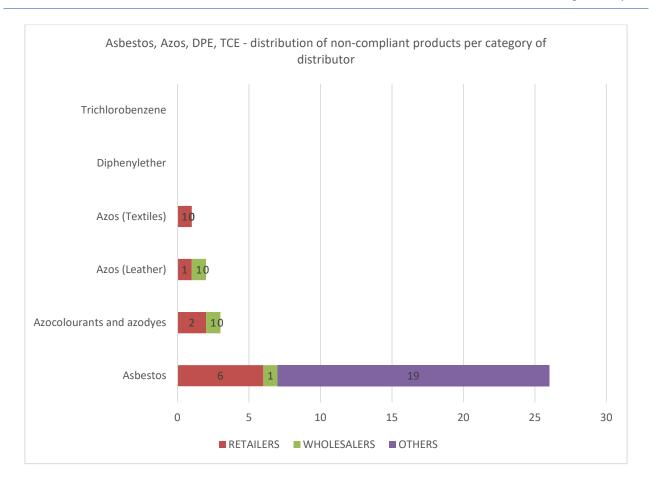


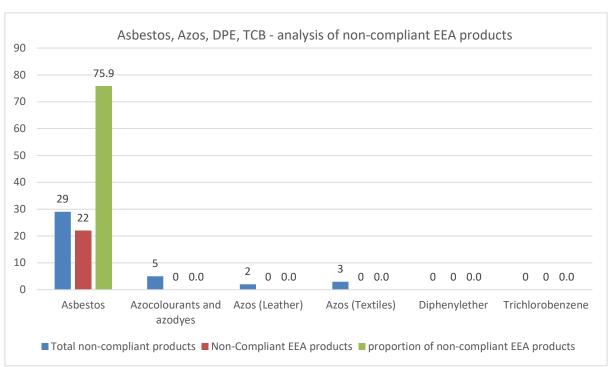


 Asbestos, azocolourants and azodyes, diphenylether (DPE) and trichlorobenzene (TCB)

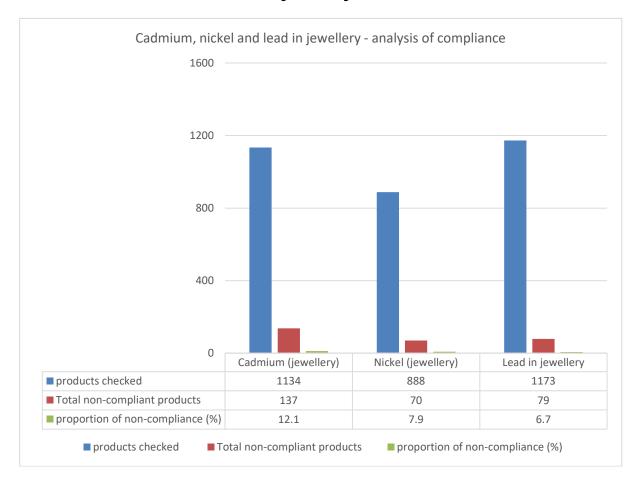


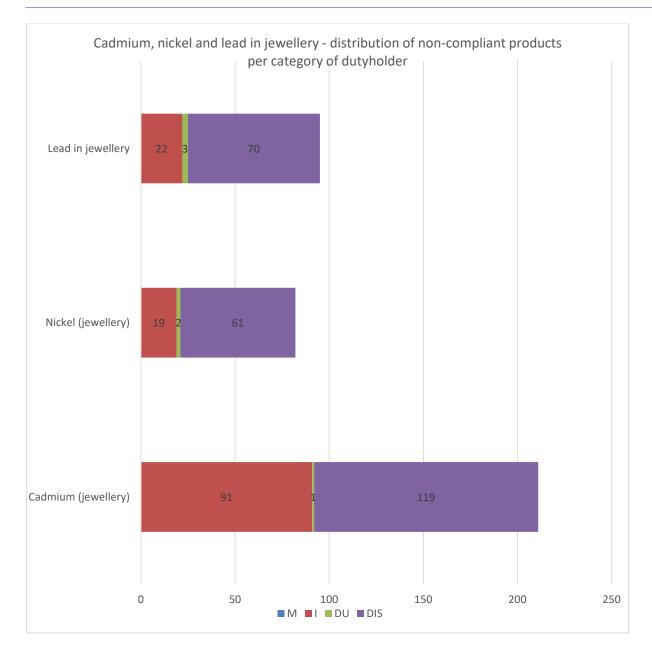


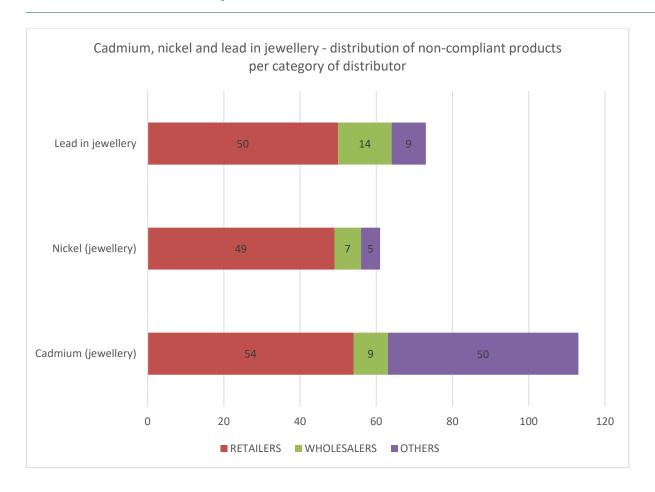


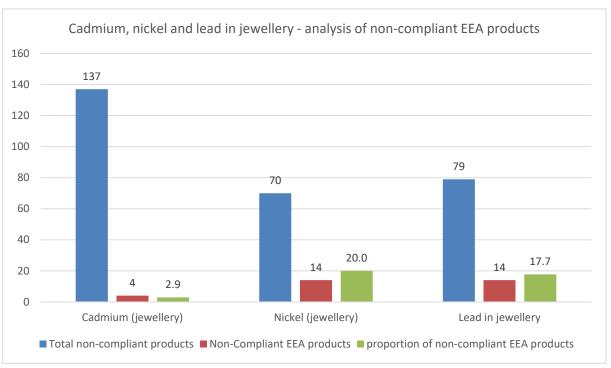


• Cadmium, nickel and lead in jewellery

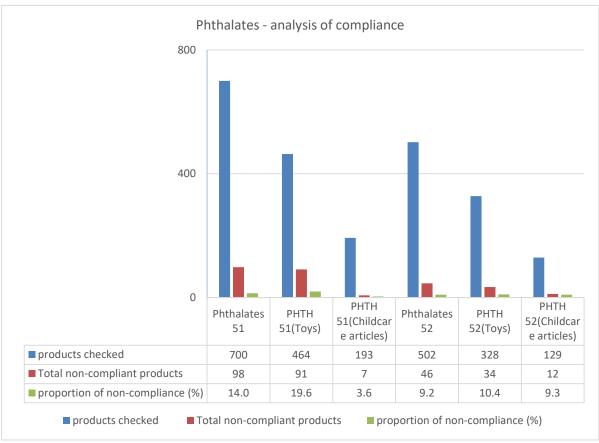


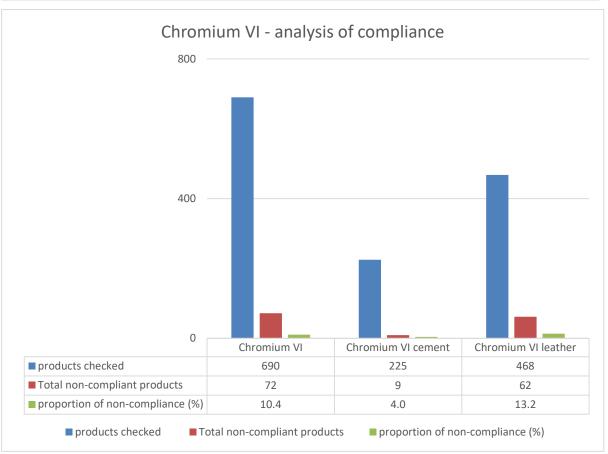


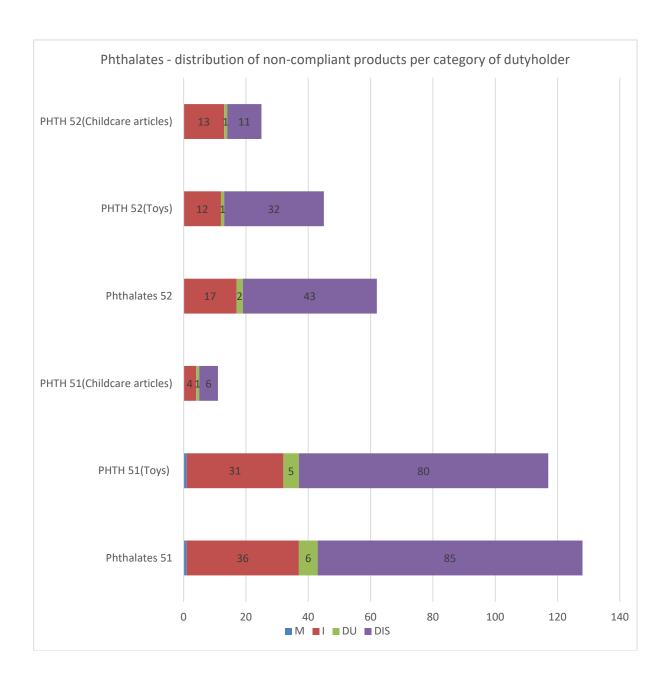


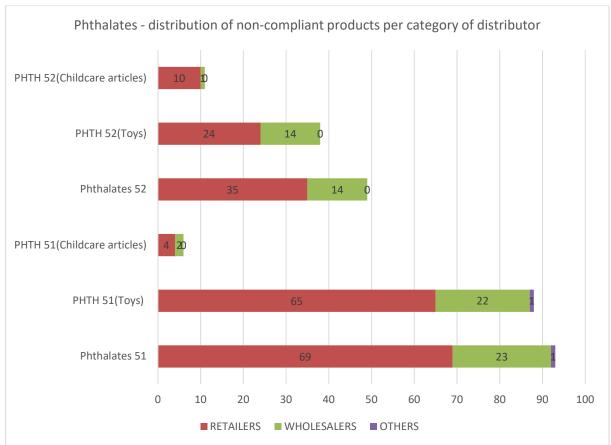


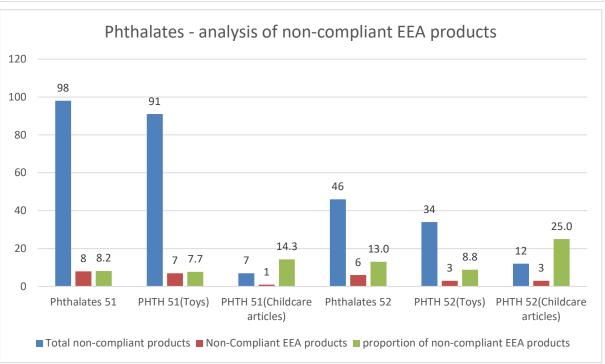
• Phthalates (entries 51 and 52)



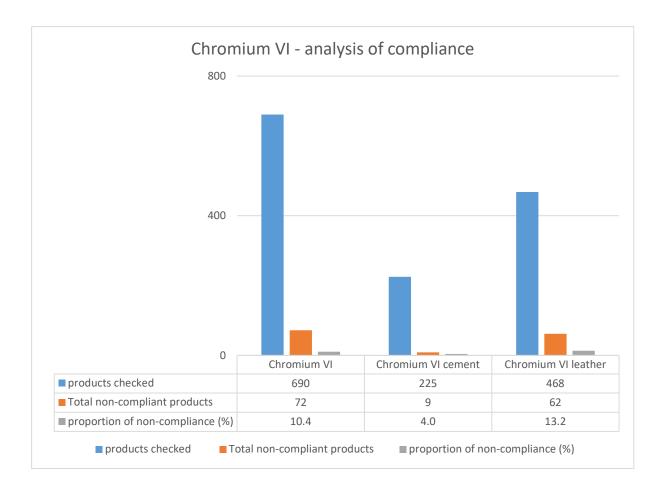


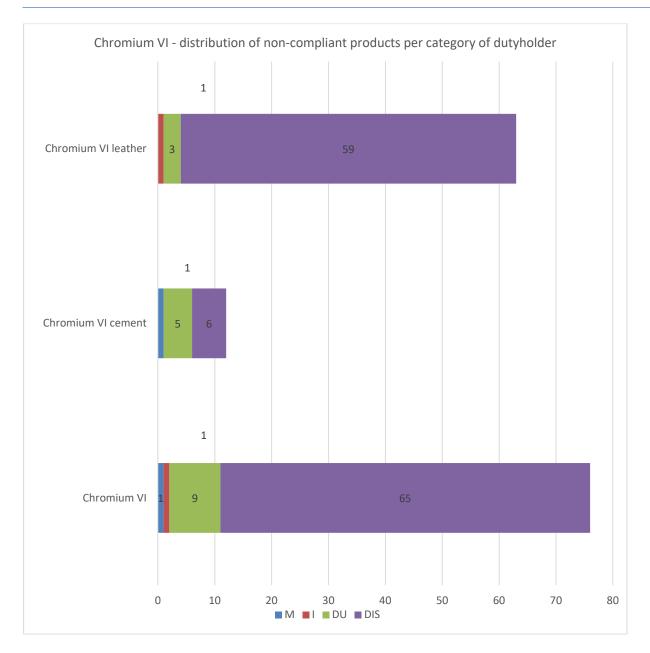


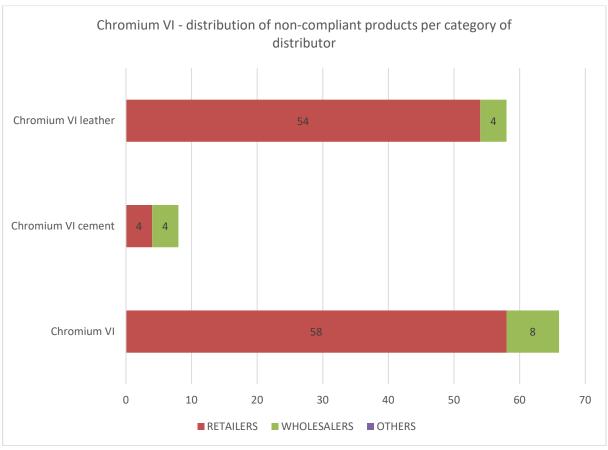


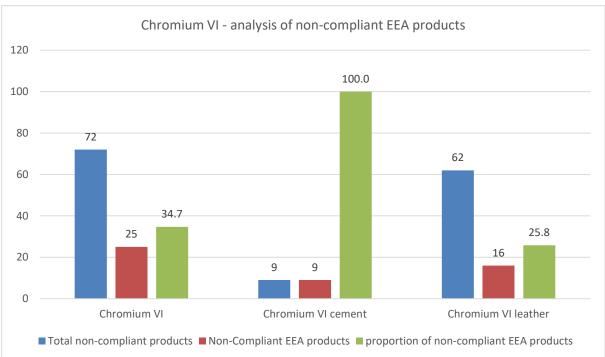


• Chromium VI

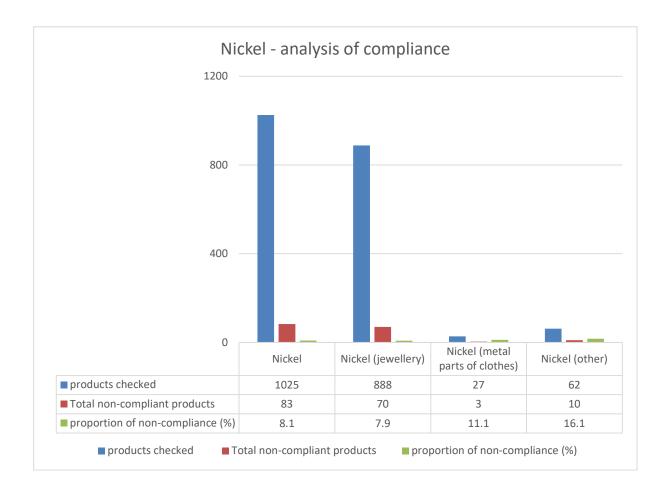


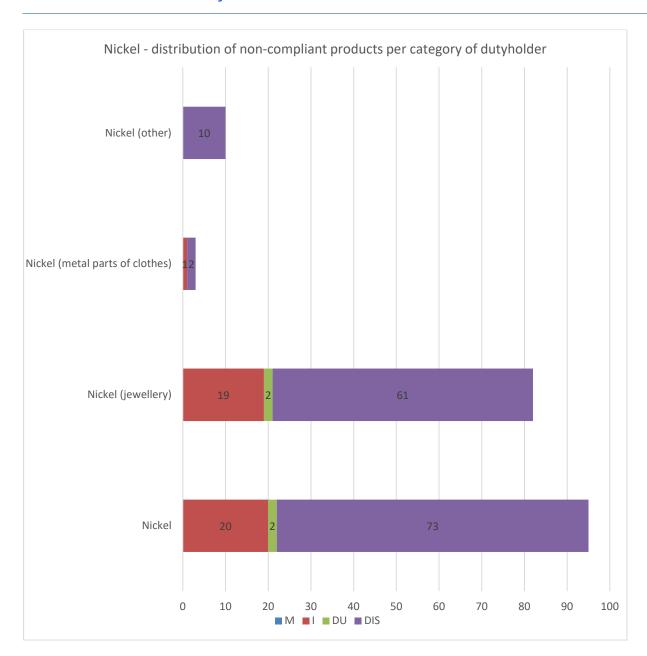


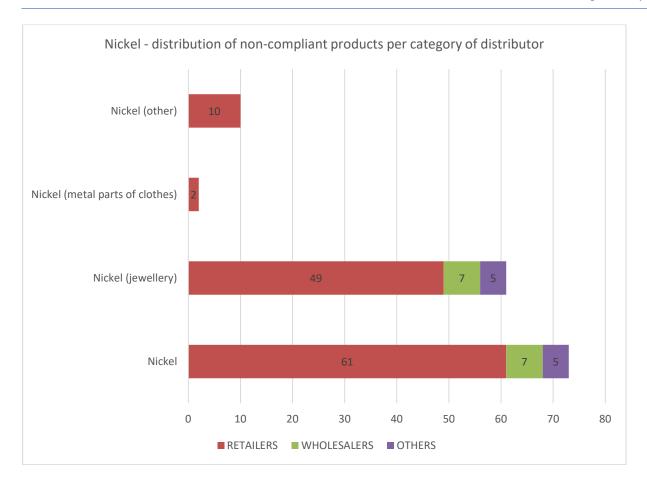


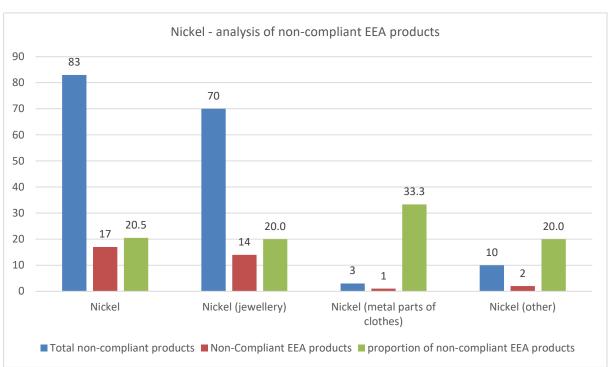


Nickel

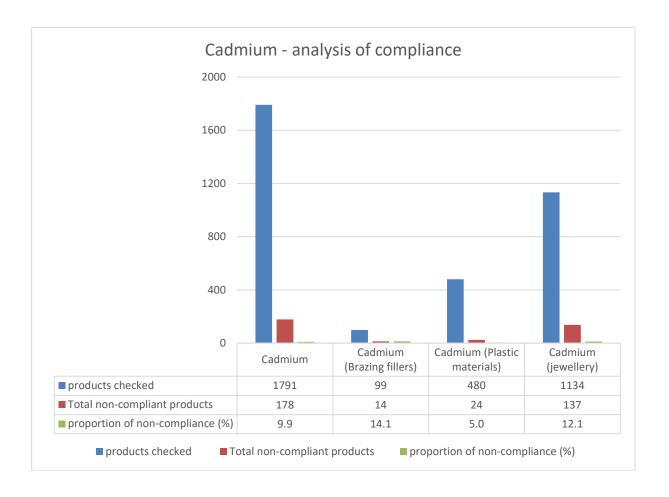


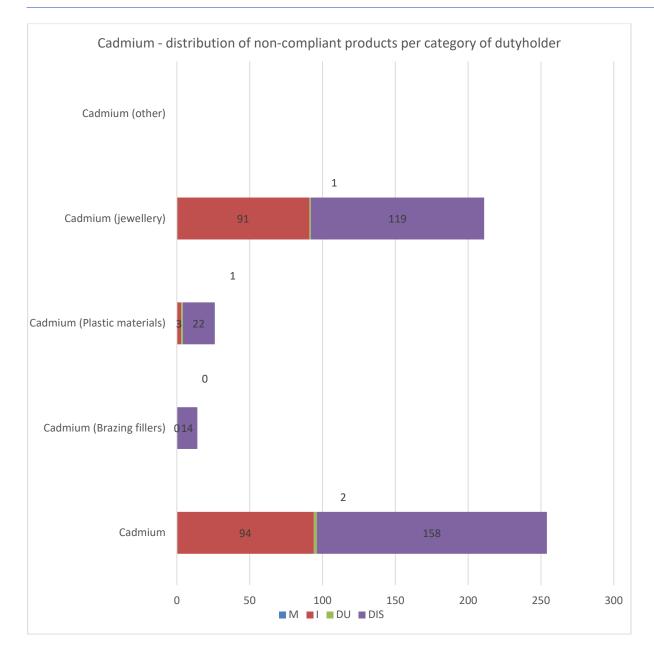


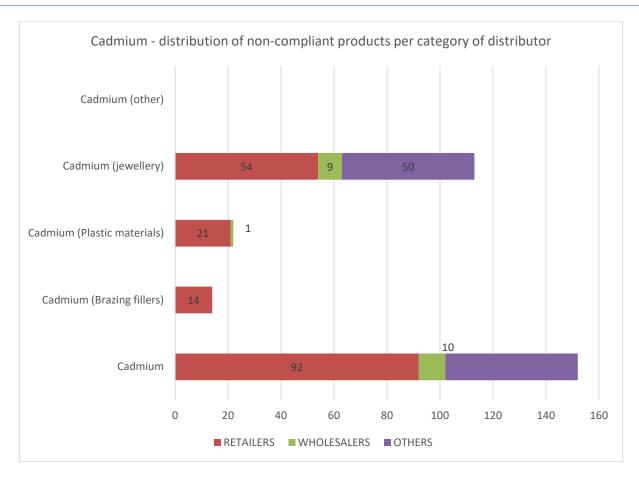


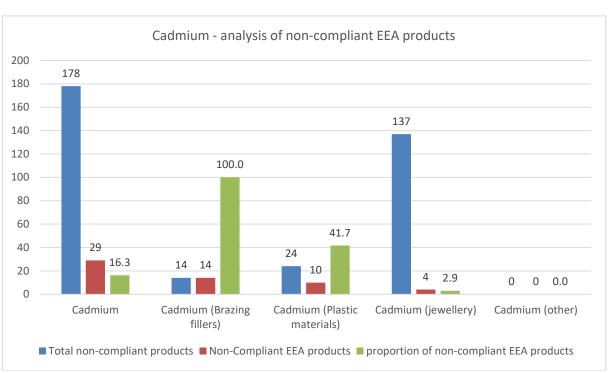


• Cadmium

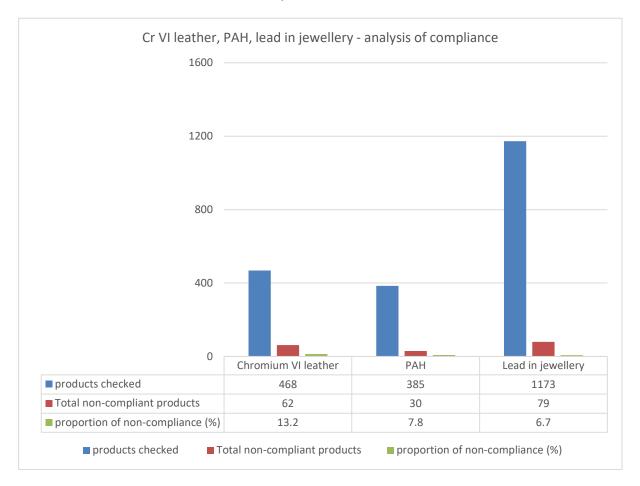


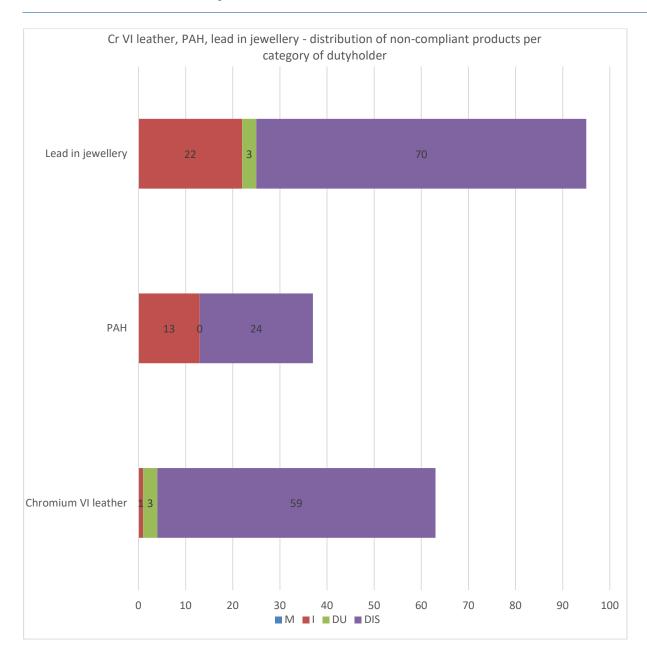


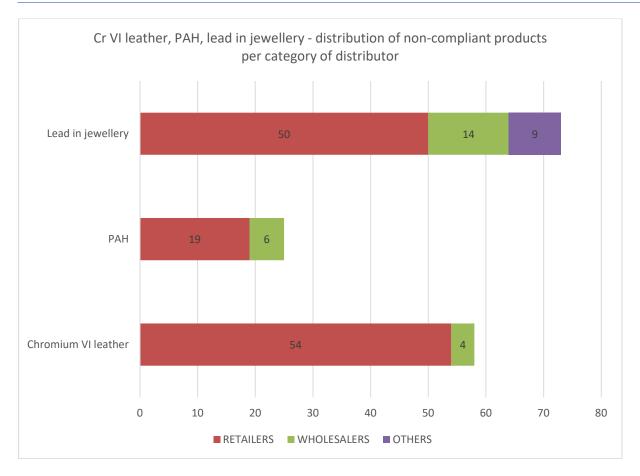


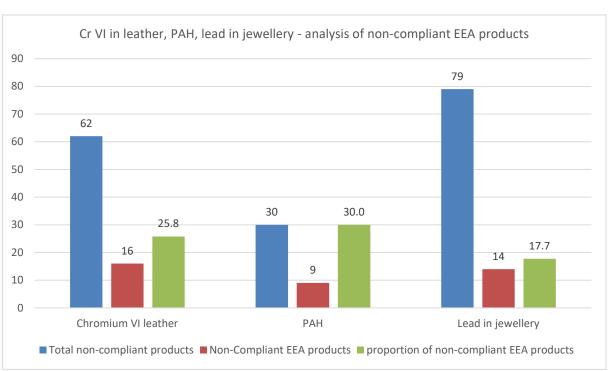


 Restrictions adopted after the entry into force of REACH (lead in jewellery, chromium VI in leather, PAH)

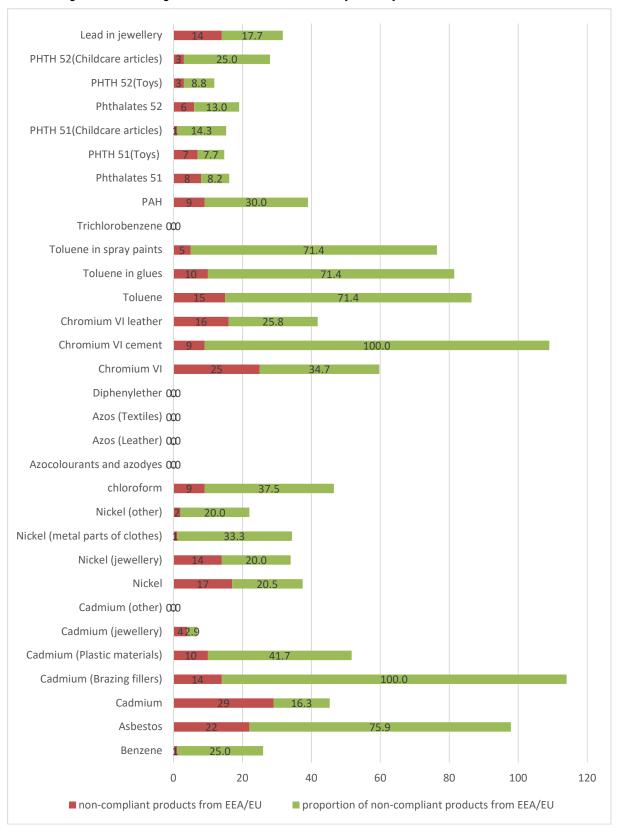


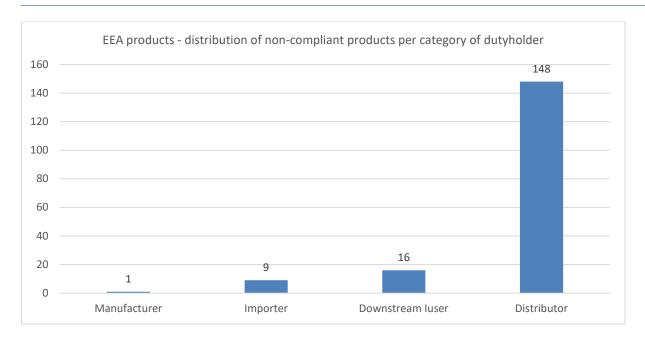


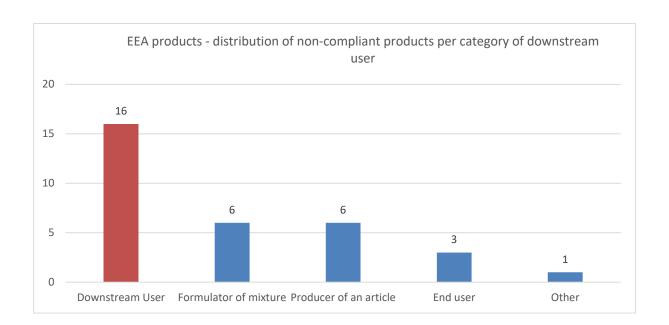


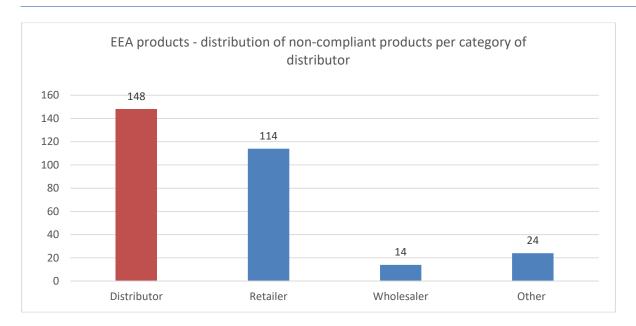


Summary of the analysis of the EEA non-compliant products









Analysis of the additional entries not covered by the original scope of the project

		Product s	Non- complia nt	Ratio of non-compliance (%)
3	Hazardous liquid substances or mixtures	3	0	0
11	Volatile esters of bromoacetic acids	16	0	0
16	Lead carbonates	42	3	7.1
17	Lead sulphates	1	1	100
18	Mercury	395	350	88.6
28	Carcinogens	2	2	100
29	Mutagens	1	0	0
30	Reprotoxic	8	5	63
	empty	21	0	0

Table 6

Note: the large amount and proportion of non-compliant products relative to entry 18. Clearly, the average rate of non-compliant products is influenced by the extra product checks. The average rate of non-compliant products is most likely attributable to how these product checks are targeted.

Total number of legal actions initiated against the offender (Fig. 22)

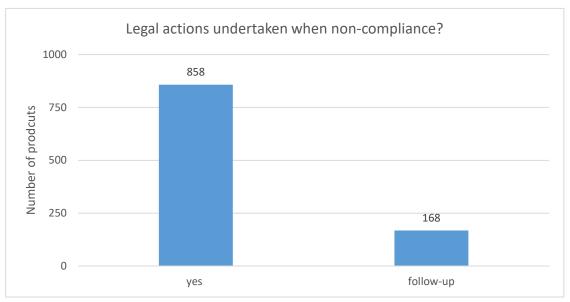


Figure 22

- Type of legal action initiated against the offender (enforcement measures, sanctions) (Figures 23 and 24). Note that the type of legal action is dependent on national provisions and procedures in the different countries.
 - Enforcement measures (Fig. 23)

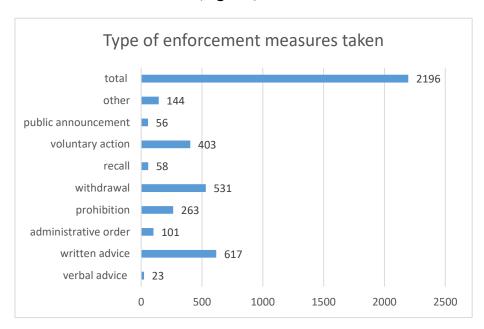


Figure 23

Note: written advice followed by withdrawal account for the two highest numbers of types of enforcement measures taken. The total number of enforcement measures cannot be directly related to the total number of non-compliant products since, in some cases, more than one product has been checked from the same company and/or more than one type of measure has been taken for the same product by the NEA.

o Sanctions (Fig. 24)

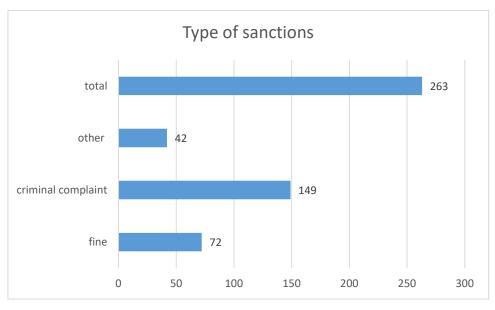


Figure 24

Note: criminal complaints followed by fines account for the two highest numbers of type of sanctions applied.

• Number of non-compliant cases forwarded to other Member States:

260 non-compliant cases forwarded to other Member States.

Way of communication used to forward the cases to other Member States (Fig. 25)

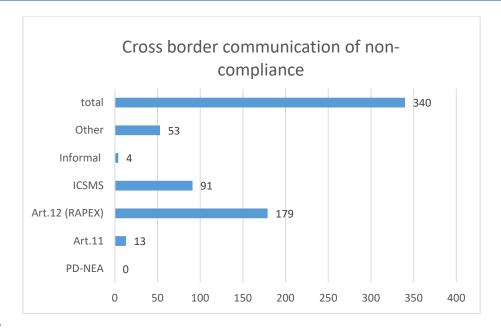


Figure 25

ICSMS: the intenet-supported information and communication system for the pan-European market surveillance.

Art. 12 (RAPEX): Article 12 notification (RAPEX, General Product Safety Directive 2001/95/EC).

Art. 11: Notification (General Product Safety Directive 2001/95/EC).

PD-NEA: Portal-Dashboard for national enforcement authorities.

Note: RAPEX notifications followed by communication through the ICSMS are the two main mechanisms used for cross border communication of non-compliant products.

2. Conclusions

Level of implementation of Article 67(1) of REACH.

- The average non-compliance rate was 18 % of the total 5 625 product checks for the project. This is a very high non-compliance rate considering that REACH restrictions have been established for uses of chemicals with the highest and most unacceptable risks to human health or the environment. However, the samples taken for the project cannot necessarily be considered as a reflection of the whole European market.
- The non-compliance rate was very high for those products that did not contain a marking of origin in their label, or where the origin could not be found out otherwise (39 %). The lack of information on the origin could be an indication for more interest from the enforcement authorities and should also be such for the companies in the supply chain.
- Most inspected products were imported from China. The non-compliance rate for those products (17 %) is higher than from products originated from EU/EEA area. Although the non-compliance detected for products manufactured in the EEA/EU is lower, it can also be considered as significantly high (10 %).
- Legal actions have been taken for 858 non-compliant products. As in previous REF projects, the enforcement measures have been variable between product checks. This is from voluntary actions to fines and criminal complaints and is related to the national provisions and procedures of each country. Follow-up actions at the end of the operational phase were indicated for the other 168 non-compliant products.

<u>Categories of products on the market with higher likelihood to be non-compliant with Article 67(1) of the REACH Regulation.</u>

- The average non-compliance for phthalates restricted in toys and childcare articles for the two Annex XVII entries was 19.7 % for entry 51 and 10.4 % for entry 52. This can be considered as a special point of concern taking into account that the target group of those products are children and babies.
- In checked jewellery products, all restricted heavy metals were found from articles tested around the EU/EEA area. There was a 6.7 % non-compliance rate with lead (meaning that 6.7 % of jewellery products tested contained lead above the restricted concentration limit), 7.9 % non-compliance rate with nickel and 12.1 % non-compliance rate with cadmium. Cadmium is also a problem in brazing fillers (14 % non-compliance rate).
- Although asbestos fibres are restricted in nearly all uses and this restriction has been in force in the EU/EEA area for decades, the enforcement authorities still found noncompliance in 13.6 % of products checked. These products were mainly from secondhand markets.
- Other entries where high incompliance rates have been identified are: Chromium (VI) in leather, showing a rate of non-compliance of 13.3 %, nickel in metal parts of clothes (11.1 %) and polycyclic aromatic hydrocarbons (PAHs) in consumer articles (7.9 %). In all these groups of products, future actions for improving the compliance in the EU/EEA should be also considered.
- Mercury in measuring devices have especially high non-compliance rates with 88.5 % non-compliance in nearly 400 products checked. This entry was enforced only by one country (the UK) and product checks were specifically targeted to small-scale companies or individuals using online auctions to advertise and place these products on the market. The results do not reflect the entire market but it is still suggested that other countries should also check measuring devices against mercury.

<u>Categories of dutyholders with a higher likelihood to place on the market, manufacture or use non-compliant products (substances, articles, mixtures).</u>

- In terms of total number of non-compliances found, articles were the group of products with the highest number of non-compliances (901). This is 20 % of the total number of inspected articles. Most of the products were checked in distributing companies (mainly retailers) followed by importers. Therefore, it seems that checking products at the end of the supply chain is the most common option for inspectors to find possible non-compliances.
- Although the highest rate of non-compliance by category of product was found in substances (53 %), this result cannot be considered as representative in the context of the project, because the number of inspected substances was small (17) compared to the number of articles checked. Furthermore, selection of the inspected manufacturers/importers of substances for the project could be done based on risk factors.

Customs involvement

Enhancement of the cooperation of NEAs with the national customs authorities was one of the expected outcomes of this project. In 13 out of the 27 reporting Member States, specific procedures for cooperation under this project took place. In all 13 Member States this cooperation with the customs was not established for the first time during the REF-4 project, it was a continuation based on previous arrangements.

The type of cooperation varied. In most of the 13 Member States, the customs authorities provided data for specific CN codes to the enforcement authorities, like the importers' names, addresses, quantities and origin of the imported goods etc.

Two Member states reported that they receive this information from customs, for the CN codes 28-38, on a regular basis. The Member States which established the procedure for receiving information from customs only under the REF-4 project reported that it should be made more streamlined and easier for the REACH enforcement authorities to get information from their customs authorities. In one Member state, procedures for stopping goods at customs level were implemented.

Almost all of the specific suggestions for the enhancement of this cooperation are related to the development, to the extent possible, of unique CN-codes for all substances, mixtures or articles restricted by Annex XVII to REACH, as this would support the application of commercial policy measures (Article 79 of Council Regulation (EEC) No 2913/92 of 12 October 1992 establishing the Community Customs Code) in some situations.

It has been reported that, in some cases, the CN codes which were provided with the manual of the REF-4 project were not specific enough for an accurate description of a particular type of article (e.g. it is not possible to specify textile products for children). Or, in some types of products such as electronics, the codes were not suitable for the selection of the exact group of products to be checked. Another related suggestion is to have separate CN codes for the cement falling under the derogation of the chromium (VI) restriction (entry 47(1-4) due to its intended use in closed, controlled and totally automated processes.

The suggestion for the development of precise CN codes for every restriction of Annex XVII could only be implemented with a review of all CN codes which, although it has been recognised as a necessity by all the Member States which involved customs under REF-4, was beyond the scope of the specific project.

Finally, it has been suggested that more common enforcement projects with the customs authorities are needed to enhance this type of cooperation.

Analytical methods

The Forum has prepared a *Compendium of analytical methods Recommended by the Forum to check compliance with Reach Annex XVII restrictions.* The compendium describes over 100 recommended analytical methods that can be used for checking compliance with REACH restrictions in Annex XVII.

The compendium is available on ECHA's website⁶ and it is also useful for companies when they want to analyse their products using the same methodology that is recommended for authorities.

The purpose of this document is to provide a ready reference of some available analytical methods that authorities or industry may use to assess the compliance of chemicals manufactured, used or placed on the European market to the restrictions set forth in Annex XVII to REACH.

These methods for the analysis of chemicals are a collection of methods in use in official laboratories supporting the Member State enforcement systems and in other laboratories linked to some stakeholder organisations consulted for this purpose.

The national coordinators were asked about the methods they used to verify compliance of products with the REACH restrictions. Most of the national coordinators responded that the methods provided in the *Compendium of analytical methods* recommended by the Forum had been used.

One Member State also reported that the company inspected had itself already used the method provided in the compendium for verifying compliance. The national coordinators also provided comments on the practicability of some methods in the compendium. These comments have been forwarded to the Forum Working Group that was responsible for the preparing the compendium.

One of the results of the project was facilitating the understanding of methodologies used to analyse the different products and to develop knowhow at EU-EEA level on these methodologies.

There is also a clear preference of the Forum that for each restriction a practicable and reliable analytical method should be available.

^{6 &}lt;u>https://www.echa.europa.eu/about-us/who-we-are/enforcement-forum/enforceability-of-restrictions</u>

3. Annex 1: Questionnaire

Questionnaire, data collection

General remarks on the questionnaire:

- inspectors will submit one questionnaire per inspected product;
- the questionnaire is intended to be a reporting tool for inspectors and thus it is compact;
 and
- while investigating a case, an inspector might wish to look deeper into compliance with other duties but only questions that directly link to the scope of REF-4 are in the questionnaire.

The questionnaire is intended only for the use of authorities and shall not be distributed to inspected companies.

Results of product checks (based on spot checks, company visits, purchase [via the internet] as well as desk studies) should be reported and submitted to the working group. Sections shaded in grey are only for internal use and should not be reported to the project management. Inspectors should also fill in the grey parts if so decided nationally. It is up to the national coordinator to remove the grey parts in the final reporting.

Documentary controls and results based on screening methods can be reported especially when the results of the checks can lead to the conclusion that the products are in conformity. Otherwise, the documentary and the screening controls will usually need to be complemented with analytical controls. There may, however, be products that are regarded as non-compliant already by checking the labelling/safety data sheet (SDS), if for example toluene is specifically mentioned on the label of a glue intended for consumer use.

Sections shaded in grey are only for internal use and should not be reported to project management.

In addition to the questionnaire intended for the inspected products, the national coordinators will submit one questionnaire at the end of the operational phase of the project intended to inform about the cooperation with customs authorities and the use of analytical methods for the purposes of the REF-4 project.

Forum Project on Annex XVII restrictions REF-4 QUESTIONNAIRE (fill out one questionnaire per product inspected) Section 0 - General Information about the inspection 0.1. Participating country: 0.2. z Note: 0.3. Role(s) of the company under REACH (multiple responses possible): ☐ Manufacturer of substance Art. 3(9) of REACH Art. 3(11) of REACH □ Importer Art. 3(13) of REACH □ Downstream user If downstream user, please indicate whether: ☐ Formulator of a mixture Art. 3(4) of REACH ☐ Producer of an article ☐ End user □ Other (e.g. re-filler / re-packager) Art. 3(14) of REACH ☐ Distributor (e.g. supplier of articles) If distributor, please indicate whether: □ Retailer □ Wholesaler cf. to Art.3(32) and ☐ Other (e.g. other actor in the supply chain) Art.3(33) of REACH Section I - Details of the product inspected 1.1.Product name 1.2.EAN number (if relevant)

1.3. The product is a:	
☐ Substance	
☐ Mixture	
☐ Article	

1.4. Inspection of compliance with Annex XVII entry (multiple answers possible):	
☐ Entry 5: Benzene	
☐ Entry 6: Asbestos	
 □ Entry 23: Cadmium; In what kind of product? □ Brazing fillers □ Plastic material □ Jewellery □ Other 	
 □ Entry 27: Nickel □ Jewellery □ Metal parts of clothes (rivet buttons, rivets, zippers) □ Other 	
☐ Entry 32: Chloroform	
□ Entry 43: Azocolourants and Azodyes□ Leather□ Textiles	
☐ Entry 45: Diphenylether, octabromo derivative C12H2Br8O	
□ Entry 47: Chromium VI□ Cement□ Leather articles	
□ Entry 48: Toluene□ Glues□ Spray paints	
☐ Entry 49: Trichlorobenzene	
☐ Entry 50: Polycyclic-aromatic hydrocarbons (PAH) in consumer articles	
□ Entry 51: Phthalates□ Toys□ Childcare articles	

□ Entry 52: Phthalates□ Toys□ Childcare articles	
☐ Entry 63: Lead in jewellery	
☐ Other entry(ies) : please specify entry from Annex XVII	
1.5. The inspected product was placed on the market via the internet:	
□ Yes	
□ No	
□ Not applicable	
1.6. Origin of the product	Note: Origin related to manufacture
□ EEA/EU country	(substance),
□ US	formulation (mixture) or production (article) of
☐ China	the inspected product
☐ Other Asian countries	
☐ Other: please specify	

	ne compliance of the product was checked nultiple responses are possible):	
□ doing	g a chemical analysis by the authority	
	g an analytical screening investigation by the ty (e.g. XRF for metals)	
□ test	report provided by the company	
□ Safe	ty Data Sheet, labelling	
	er (e.g. another chemical analysis done by r entity)	
Se	ction II - Summary / enforcement action	
2.1.	Has non-compliance with Art. 67 and Annex XVII of REACH been detected?	
□ No		
□ Yes		
If Yes plea	ase specify [answers on the next page]	

2.2. Non-compliance requirements with entry(ies)	
(multiple answers possible): □ Entry 5: Benzene	
☐ Entry 6: Asbestos	
 □ Entry 23: Cadmium; In what kind of product? □ Brazing fillers □ Plastic material □ Jewellery □ Other 	
 □ Entry 27: Nickel □ Jewellery □ Metal parts of clothes (rivet buttons, rivets, zippers) □ Other 	
☐ Entry 32: Chloroform	
□ Entry 43: Azocolourants and Azodyes□ Leather□ Textiles	
☐ Entry 45: Diphenylether, octabromo derivative C12H2Br8O	
□ Entry 47: Chromium VI□ Cement□ Leather articles	
□ Entry 48: Toluene□ Glues□ Spray paints	
☐ Entry 49: Trichlorobenzene	
☐ Entry 50: Polycyclic-aromatic hydrocarbons (PAH) in consumer articles	
□ Entry 51: Phthalates□ Toys□ Childcare articles	

□ Entry 52: Phthalates□ Toys□ Childcare articles	
□ Entry 63: Lead in jewellery	
☐ Other entry: please specify entry from Annex XVII	
☐ Other entry : please specify entry from Annex XVII	
2.3. Legal action was initiated against the offender:	
□ No□ Follow-up activities still on-going□ Yes	
If yes, please specify [answers on the next page]	

2.4. Type of legal action initiated against the offender	
A) Enforcement measures (multiple responses are possible):	
□ Verbal advice	
☐ Written advice	
☐ Administrative order / Enjoinment	
☐ Prohibition from placing on the market of the non-compliant product	
☐ Withdrawal from the market of the non-compliant product	
☐ Recall from the general public	
$\hfill\Box$ Voluntary action by the company to remedy the situation	
☐ Public announcement by the Enforcement Authorities "Name and Shame"	
☐ Other: please specify ☐	
B) Sanctions (multiple responses are possible):	
□ Fine	
☐ Criminal complaint / handing over to public	
prosecutor's office ☐ Other: please specify ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	
Utiler: please specify	
Section III - Forwarding/Communication only	in case of non-
compliance	
3.1. This case has been forwarded to other Member States	
□ No	
□ Yes	
If Yes please specify [answers on the next page]	

3.2. The way of communication used was (multiple responses are possible):
☐ Portal Dashboard communication exchange
☐ article 11 notification (General Product Safety Directive 2001/95/EC)
☐ article 12 notification (RAPEX, General Product Safety Directive 2001/95/EC)
☐ ICSMS data set
□ informal (e.g. via e-mail)
☐ Other: please specify ☐
Section IV – Informal comments ⁷ (not obligatory)
Section 14 Informal comments (not obligatory)
QUESTIONNAIRE FOR NATIONAL COORDINATORS
(This questionnaire is to be filled in by national coordinators. Only one questionnaire is to be submitted at the end of the operational phase)
Section I - Cooperation with customs authorities
Was there any cooperation with customs authorities in your country for the REF-4 project?
Yes/No

Could you please elaborate on the arrangements made to set up this cooperation?

⁷ Please fill this section if you would like to inform about obstacles you have overcome, lessons learnt, needs for clarification/harmonisation

Within the field of restrictions, was the cooperation with customs authorities established for the first time for the REF-4 project?
Yes/No
Do you have other suggestions for correlations CN-REACH for the restrictions within the scope of the REF-4 project?
Remark: CN stands for Combined Nomenclature according to the Council Regulation (EEC) No 2658/87 of 23 July 1987 on the tariff and statistical nomenclature and on the Common Customs Tariff
Yes/No
Please indicate your suggestions:
Do you have additional suggestions to enhance the cooperation with the customs authorities in the field of enforcement of Annex XVII restrictions?
Section II – Analytical methods used for the purposes of the project
For the project, did you use any of the methods provided in the Compendium of analytical methods recommended by the Forum?

Yes/No

If yes, did you find any potential issue with the methods used that would be worth to mention?

If not, could you please indicate which methods were used? (e.g. provide a reference to the standard method used)

Do you think there is a specific need to develop a standard at European level for some of the Annex XVII entries covered by the scope of the project?

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