

Mars International (Asia) Co. Ltd.

Article 33(1) DECLARATION OF REACH COMPLIANCE

REACH¹ Article 33(1) - Communication on Substances of Very High Concern in Products

REACH Candidate List version Date*	23/01/2024
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*[REACH Candidate list](#) of SVHC declarations including all substance names that were included up to the Candidate List Version Date above.

To whom it may concern,

We hereby send you information related to the REACH regulation (Regulation (EC) No. 1907/2006). In accordance with Article 33(1) of the REACH regulation, this communication applies to all Products sold or otherwise placed on the market by **Mars** prior to the signature date shown below.

If no such Products contain Substance(s) of Very High Concern ("SVHCs")² over the threshold level, this option must be selected:

Checking this box certifies that none of the Products referenced above contain SVHC(s), as per the list version dated above, at a concentration over the threshold of 0.1% weight by weight at the article level.

OR, if any such Products contain Substance(s) of Very High Concern ("SVHCs") over the threshold level, the table below must be completed. Each Product referenced in the table below is deemed to contain one or more of the below-referenced SVHC(s), as per the list version dated above, at a concentration over the threshold of 0.1% weight by weight at the article level. Products not listed do not contain listed substances over that threshold.

REACH SVHC Candidate List Status and Information for Articles with SVHCs Over Threshold

Product(s)	Substance % Present (w/w)	Substance name	CAS Number	Safe use information (if applicable)

¹ [Regulation \(EC\) No 1907/2006 of the European Parliament and of the Council, dated 18 December 2006](#), concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals.

² [REACH candidate list substance meeting the criteria in Article 57 and identified in accordance with Article 59\(1\) of the REACH regulation](#).



Mars International (Asia) Co. Ltd.

Limitations

Mars believes that the information provided herein is accurate. The provided information is based upon data obtained from ongoing due diligence concerning goods and materials provided by third party suppliers. **Mars** provides such information "AS IS", without any express or implied warranty of any kind. **Mars** reserves the right to update and modify this communication, as it believes necessary or appropriate.

Please do not hesitate to ask for further information.

Print Name:	<u>Andrew Tse</u>	Signed:	<u>Andrew Tse</u>
Title:	<u>Sr. Quality Manager</u>	Date:	<u>15-Mar-2024</u>
Email:	<u>atse@marsint.com</u>	Phone:	<u>+852-2690 2888</u>
Address:	<u>Flat 35, 13/F., Block D, Wah Lok Ind. Ctr., 31-41 Shan Mei St., Fotan. Shatin, N.T. Hong Kong.</u>		

(cont'd)



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RoHS 3 Lead Free and REACH Compliance Declaration

Memory Protection Devices Product List

Product / Product Family	RoHS3 Compliance Directive 2015/863/EU (Yes / No / N/A)	If NO – contains substance:	Comments
AP/APP/AS series	Yes (some with exemption 6c)		Auto Products
815/6S series BA series	Yes		Battery Holders
ABG series BC Series	Yes		Electronic Components
BE series	Yes		Battery Holders
BF series	Yes		Fuse Holders
BH/BHX/BLP series BQ/BV series	Yes		Battery Holders
BI Series	Yes		Battery Insulators
BK series	Yes		Electronic Components
BR series	Yes		Battery Holders
BS series	Yes		Electronic Components
BU series	Yes		Battery Holders
SBH series	Yes		“ “
SN series	Yes		Battery Contacts
ZA series,EP,EJ	Yes (some with exemption 6c)		Auto Products Electronic Components
ZB series	Yes		Clips

Visit the European Commission’s web site for further information:

http://ec.europa.eu/environment/index_en.htm

Notes:



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No declaration is made for products that contain materials present in trace quantities, e.g. as natural impurities below 0.1% for Lead, Mercury, Chrome VI, PBBs and PBDEs and 0.01% for Cadmium.

Customer Letter

Dear Customer

Environmental Compliance

MPD takes environmental compliance very seriously, and continuously monitors regulatory and best practice developments to ensure its products conform with the latest environmental standards. The information below outlines the key elements of MPD's environmental strategy and compliance position.

Awareness and Strategy

MPD is aware of the major national and international regulations that apply to its products, including:

- **RoHS3** (European Union Directive on the Restriction of Hazardous Substances in Electrical and Electronic Equipment)
- **REACH** (European Union Regulation concerning the Registration, Evaluation, Authorization, and Restriction of Chemicals)
- **China RoHS** (Order on Management Methods for the Control of Pollution by Electronic Information Products)
- **WEEE** (European Union Directive on Waste Electrical and Electronic Equipment)

In order to ensure compliance with these regulations, and to ensure that new developments do not disrupt the supply of materials used in MPD products or the supply of MPD products to our customers, we implement specific strategies, in cooperation with our suppliers, to deal with the current and evolving regulatory requirements.



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RoHS 3 COMPLIANCE DECLARATION

RoHS 3 (EU) / RoHS (China)

The EU RoHS 3 and China RoHS rules are designed to restrict the use of certain hazardous materials in the manufacture of various types of electronic and electrical equipment. The China RoHS rules currently apply to the marketing and labelling of products and packaging materials only. MPD is fully aware of these rules and monitors the latest developments in legislation and official implementation guidance.

Memory Protection Devices, certifies the product families listed on page #1 as lead-free, and are in compliance with European Union Directive (RoHS Directive), 2011/65/EU (RoHS 2 Directive), and 2015/863/EU (RoHS 3 Directive) of the European Parliament with respect to the following substances:

EU RoHS compliant is defined as meeting the following requirements.

Source: <http://www.rohsguide.com/>

Restricted Substance	Maximum Threshold Limit	Product Results
Lead (Pb)/ Lead Compounds	< 1,000 ppm	In compliance
Mercury (Hg)/ Mercury Compounds	< 100 ppm	In compliance
Cadmium (Cd)/ Cadmium Compounds	< 100 ppm	In compliance
Hexavalent Chromium (Cr VI)	< 1,000 ppm	In compliance
Polybrominated Biphenyls (PBB)	< 1,000 ppm	In compliance
Polybrominated Diphenyl Ethers (PBDE)	< 1,000 ppm	In compliance
Bis (2-Ethylhexyl) Phthalate (DEHP)	< 1,000 ppm	In compliance
Butyl Benzyl Phthalate	< 1,000 ppm	In compliance
Dibutyl Phthalate	< 1,000 ppm	In compliance
Diisobutyl Phthalate	< 1,000 ppm	In compliance



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REACH (EU)

REACH is designed to ensure that certain chemical substances (“Substances of Very High Concern”, or SVHCs) have been properly evaluated, registered and the method of safe use effectively communicated to the end-user with the overall purposes of protecting human health and the environment. As a “downstream” user of components that might contain SVHCs, we are not subject to the REACH evaluation or registration requirements, although the communication requirements are potentially applicable.

We maintain full contact with our suppliers who might supply to us components or articles containing SVHCs. Based on information given to us by our suppliers, all of our products are below the threshold of 0.1% by weight for SVHCs. Should our goods or packages contain SVHC materials above this threshold, we will inform customers in line with the regulations.

REACH SVHC List: 240 Substances



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WEEE (EU)

WEEE requires observation of various marking, collection, recycling and recovery targets for producers of certain categories of "electrical and electronic equipment" ("EEE"). A revised version of the WEEE Directive became effective in February 2014. As a supplier of interconnect products, MPD does not directly produce "EEE" as defined in the WEEE Directive. As a result, the requirements of the WEEE Directive do not directly apply to MPD products. The position under the revised WEEE Directive is not expected to change.

Further questions

To obtain product-specific environmental compliance information, please visit:
batteryholders.com/compliance.php.

If you have any further questions or require and additional information, please feel free to contact us.

Sincerely,

MPD

Daniel B. Lynch Sr.

Chief Executive Officer



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To:
Memory Protection Devices, Inc.
200 Broad Hollow Road, Suite 4,
Farmingdale, NY 11735.

From:
Mars International, Inc.
60 Kingsbridge Rd,
Piscataway, NJ 08854.

Date : 3/15/2024

REACH Obligations For Products and Materials:

Mars International Inc. is fully aware of the REACH regulation and has a team in place to monitor all aspects of the regulation. From the product compliance standpoint, Mars monitors and tracks all materials content information and shares this information with our customer as requested.

To the best of our knowledge, based on a review of the supplier-provided data for materials incorporated in all MPD products do not contain the Substances of Very high Concern (SVHCs) in the candidate list of substance of very high concern, issue by ECHA, last update on 23 Jan 2024 (REACH240), with exemption as note which may be contained in the product. (Please see exemption note as below)

- Lead (EC#231-100-4, CAS#7439-92-1)

Note:

Some sub supplier has reported Lead (CAS#7439-92-1) in their materials supplied to supplier of Mars. We may declare this substance above the 0.1% by weight SVHC threshold in our finished product material Examples of materials include (but are not limited to) Phosphor Bronze.

The registration obligation is not applicable for all the below products since the substances used fall below the limit of one ton per year:-

Product Number:
EJ501A / EJ501C / EJ508A


By: Andrew Tse
Title: Sr. Quality Manager

REACH 240

Substance_Name	CAS_Number	Where used
(±)-1,7,7-trimethyl-3-[[4-methylphenyl]methylene]bicyclo[2.2.1]heptan-2-one covering any of the individual isomers and/or combinations thereof (4-MBC)	-	4-MBC serves as a UV filter in cosmetics and personal care products – in fragrances, body care products. https://echa.europa.eu/documents/10162/28ce5cad-f913-f368-d1e6-fc5648767f43
[4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene dimethylammonium chloride (C.I. Basic Blue 26) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	2580-56-5	Carcinogenic (Article 57a). used in inks, dyes, paints, and pigments, dyeing a variety of materials, such as paper , cosmetic products. Is not expected in concentrations above 0.1% w/w in articles. https://echa.europa.eu/documents/10162/13638/svhc_axvr_ep_c_i_basic_blue_26_pub_en.pdf
[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	548-62-9	Carcinogenic (Article 57a). dye in ink applied in cartridges for printers and in ball pens and as dyestuff for paper colouring. https://echa.europa.eu/documents/10162/13638/svhc_axvr_ep_c_i_basic_violet_3_pub_en.pdf
[Phthalato(2-)]dioxotrilead	69011-06-9	Is a RoHS substance. Toxic for reproduction (Article 57 c). Professional use of plastics, PVC processing. https://echa.europa.eu/documents/10162/c667c4e8-6a8a-4434-a6bc-f4d23e068e0a
1,1'-[ethane-1,2-diyl(bisoxo)]bis[2,4,6-tribromobenzene] (BTBPE)	37853-59-1	Additive in flame retardants and in thermoplastics. Acrylonitrile butadiene-polystyrene (ABS), high-impact polystyrene (HIPS) resins, including electronics, electrical products, and some construction materials. Largely phased out. https://echa.europa.eu/documents/10162/1ee83015-d865-f9e2-4b4a-d4cf634c2b29
1,2,3-Trichloropropane (1,2,3-TCP)	96-18-4	Carcinogenic and toxic for reproduction (articles 57 a and 57 c). Used as in Pesticides, Chlorinated solvents, Polysulfide elastomers (cross-linking agent), Hexafluoropropylene (cross-linking agent). 1,2,3-TCP seemed to be used as an intermediate in the synthesis of other chemical substances. The lifecycle of 1,2,3-TCP ends in this synthesis. Therefore, it is assumed that no 1,2,3-TCP is used in articles. https://echa.europa.eu/documents/10162/13640/svhc_axvr_ep_echa_cmr_123-tcp_publ_en.pdf
1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate	68515-51-5, 68648-93-1	Toxic for reproduction (article 57c). uses are for example in adhesives , lubricants, coatings, building material, cab le compounding, polymer foils, PVC compounds and artist supply. https://echa.europa.eu/documents/10162/a29d1d03-af35-4c82-9775-0723ab337b3f
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71888-89-6	Toxic for reproduction (article 57c). Plasticiser in PVC , Plasticiser in sealants and printing inks. https://echa.europa.eu/documents/10162/13640/svhc_axvr_ep_echa_cmr_dihp_en.pdf
1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)	68515-42-4	Toxic for reproduction (article 57c). Electrical cables , as a plasticizer, polyvinyl chlorides (PVC) and foam; automotive sealant; urethane, glass , and transmission adhesive; roof coatings, barrier coatings, exterior trim, and tarps; cement, caulk, and sealer; and high-end luggage. https://echa.europa.eu/documents/10162/13640/svhc_axvr_ep_dk_cmr_dhnup_en.pdf
1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	Toxic for reproduction (Article 57 c). There is no reported use of this substance in electrotechnical products. However, the substance is chemically similar to DEHP, DBP, DIBP and BBP , and may be used as a substitute for these phthalates in PVC plastic, adhesive and inks since their use becomes phased out. https://www.echa.europa.eu/documents/10162/21636556/annex_xv_svhc_ec_271-093-5_12_benzenedicarboxylic_acid_en.pdf
1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	Toxic for reproduction (Article 57 c). Used as plasticizers in plastic material. http://www.panasonic.com/jp/corporate/eco/chem_info/pdf/en/13th_SVHC_E.pdf
1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2	Toxic for reproduction (Article 57 c). Solvent or process chemical. Glymes are also reported to be used in the formulation of electrolyte systems for lithium batteries . https://echa.europa.eu/documents/10162/13638/svhc_axvr_ep_tegdme_203-977-3_en.pdf

1,2-dichloroethane	107-06-2	Carcinogenic (article 57 a). Intermediate in the manufacture of vinyl chloride monomer (VCM). Manufacture of fine chemicals, an extraction agent, a solvent in the preparation of mixtures for biochemical applications (e.g. liquid media and cell cultures) and as an inhibitor. It is also used as a dispersant in rubber and plastics , as a wetting and penetrating agent. Is not expected above 0.1% w/w in EEE products. https://www.epa.gov/sites/production/files/2016-09/documents/ethylene-dichloride.pdf
1,2-Diethoxyethane	629-14-1	Toxic for reproduction (Article 57 c). Used as solvent and diluent for detergents, for ether gum and some resins, and ink formulations, polyurethanes epoxies. https://echa.europa.eu/documents/10162/c52546c1-89ad-4b0e-a141-b33bc279d853
1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4	Toxic for reproduction (Article 57 c), in lithium manganese batteries . EGDME is also used as cleaning solvent and within solder fluxes within the microelectronics industry. https://echa.europa.eu/documents/10162/13638/svhc_axvr_ep_egdme_203-794-9_en.pdf
1,3,5-Tris(oxiran-2-ylmethyl)-1,3,5-triazinane-2,4,6-trione (TGIC)	2451-62-9	Mutagenic (Article 57b). Is used as a hardener in resins and coatings. Manufacture of polyester powder paint coatings for metal finishing. Electrical insulation materials, resin-moulding systems, laminated sheetings, silk-screen printing coatings, tools, inks, adhesives, lining materials, and stabilizers for plastics. In solder "mask" inks in the printed circuit board industry. During the heat treatment processes, the TGIC becomes fully cross-linked into the resin or coating to form a solid matrix and is not detectable in articles. https://echa.europa.eu/documents/10162/13638/svhc_axvr_ep_beta_tgic_en.pdf
1,3,5-tris[[2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione (β-TGIC)	59653-74-6	Mutagenic (Article 57b). Hardener in resins and coatings, polyester powder coatings for metal finishing, powder coating electrical equipment, refrigerators, washing machines and ovens. The substance may also be used in inks in the printed circuit board industry, for example two-part inks used for solder-masking can contain up to around 60% TGIC in the hardener component. include in electrical insulation materials, resin moulding systems, laminated sheeting, silk-screen printing coatings, tools, adhesives, lining materials and stabilisers for plastics. During the heat treatment processes, the TGIC becomes fully cross-linked into the resin or coating to form a solid matrix and is not detectable in articles. https://echa.europa.eu/documents/10162/13638/svhc_axvr_ep_beta_tgic_en.pdf
1,3-propanesultone	1120-71-4	It is used as a chemical intermediate in the production of fungicides, insecticides, cation-exchange resins, dyes, vulcanization accelerators, detergents, lathering agents, bacteriostats, and a variety of other chemicals and as a corrosion inhibitor for mild. https://ntp.niehs.nih.gov/ntp/roc/content/profiles/propane_sultone.pdf
1,4-dioxane	123-91-1	Mainly a solvent in the synthesis of chemicals. Found as a by-product, a constituent, or an impurity in mixtures. Source: https://echa.europa.eu/documents/10162/435f5245-3bad-5ff5-65f3-0b279c9b6847
1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one; 3-benzylidene camphor; 3-BC	15087-24-8	Endocrine disrupting properties. Used in personal care products and cosmetics as a UV filter. https://chemicalwatch.com/8343/france-bans-3-benzylidene-camphor-in-cosmetics https://academic.oup.com/toxsci/article/93/2/311/1707808
1-bromopropane (n-propyl bromide)	106-94-5	Toxic for reproduction (Article 57 c). It is a solvent. It is used in dry cleaning, vapor decreasing, auto parts cleaning, spray adhesive applications, and electronic parts manufacturing. However, evaporates during use and so is not present in supplied articles for use in hardware and electrical and electronic equipment. http://www.lni.wa.gov/Safety/Research/Files/BromopropaneFactSheet.pdf

1-Methyl-2-pyrrolidone (NMP)	872-50-4	Toxic for reproduction (article 57c). Solvent in various processes in a wide variety of applications, High temperature coating, urethane dispersions, acrylic and styrene latexes, Paint removers, floor strippers, graffiti remover, industrial degreasing, injection head and cast-molding equipment cleaning, Solvent for herbicide, pesticide and fungicide formulations, Electronics Cleaning, de-fluxing, edge bead removal, photoresist stripping, Lube oil processing, natural and synthetic gas purification. However it is used as a solvent that evaporates and is not detected in finished articles. https://echa.europa.eu/documents/10162/13641/nmp_annex_xv_report_en.pdf https://echa.europa.eu/documents/10162/01e8a6d8-ba7a-474d-a640-49053005ec99
1-vinylimidazole	1072-63-5	Intermediate and monomer for polymer production of paints, lacquers, varnishes, surface treatment, and cleaning/washing agents. Impurities in mixtures above 0.1% are reported. https://echa.europa.eu/documents/10162/940d9168-1689-ab7f-ea3b-1de2f5f530c
2-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)phenol. (UV-329)	3147-75-9	In adhesive, coating, cleaning products, foams, ink, paints, sealing, synthetic rubbers, and waxes. https://echa.europa.eu/documents/10162/6b31749d-542c-349f-f24a-1dcc45850cd0
2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3	UV-stabilisers, especially for transparent plastic materials, polyurethanes and rubber , as well as constituent in formulations used for coating of surfaces. https://echa.europa.eu/documents/10162/0a09c8af-c7d2-4524-a880-6cb10ddcd1ac
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	PBT (Article 57 d), vPvB (Article 57 e). Additive in a variety of plastics, UV absorber (packaging...): styrene homo- and copolymers, acrylic polymers, unsaturated polyesters, polyvinylchloride, polyolefins, polyurethanes, polyacetals, polyvinyl butyral, elastomers, and adhesives . http://pharosproject.net/uploads/files/sources/1828/1371648647.pdf
2-(4-tert-butylbenzyl)propionaldehyde and its individual stereoisomers	-	An intermediate or chemical compound in mixtures (e.g. cleaning agents, personal care products, paints, inks, and toners). Source: https://echa.europa.eu/documents/10162/eeb75545-127f-a33d-a6e3-3929fa0335e2
2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol (TBBPA)	79-94-7	RoHS . Brominated flame-retardant used in: epoxy coated circuit boards, printed circuit boards, printed wiring boards (PWB), paper, textiles. Largely phased out. https://echa.europa.eu/documents/10162/7a28f148-5576-a7d3-8236-10c718abc52f
2,2-bis(4'-hydroxyphenyl)-4-methylpentane; BisP-MIBK	6807-17-6	Toxic for reproduction. May be used in thermal paper, like receipts. Possible traces in plastics and epoxy resins. https://pubchem.ncbi.nlm.nih.gov/compound/4_4_-4-Methylpentane-2_2-diyl_diphenol#section=Use-and-Manufacturing
2,2-bis(bromomethyl)propane-1,3-diol (BMP) 2,2-dimethylpropan-1-ol, tribromo derivative/3-bromo-2,2-bis(bromomethyl)-1-propanol (TBNPA) 2,3-dibromo-1-propanol (2,3-DBPA)	1522-92-5, 3296-90-0, 36483-57-5, 96-13-9	Flame retardants, monomer intermediates in the manufacture of polymer resins or chemicals. Source: https://echa.europa.eu/documents/10162/264b955f-492b-ab69-951d-82bc1db1ca1a
2,2'-dichloro-4,4'-methylenedianiline	101-14-4	Carcinogenic (article 57 a). Has been used as a curing agent for polyurethane, in resins and hardner . https://echa.europa.eu/documents/10162/60a7fca7-7291-45bb-b854-a1be7aa8cd76
2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionic acid, its salts and its acyl halides (covering any of their individual isomers and combinations thereof); HFPO-DA, GenX	-	PFAS in the manufacturing process of fluoropolymer resins that are used in many applications such as wire cables or PTFE (Teflon) coating. https://echa.europa.eu/-/four-new-substances-added-to-the-candidate-list
2,4-Dinitrotoluene	121-14-2	Carcinogenic (article 57a). used as a chemical intermediate in the production of toluene diisocyanate (4-methyl-m-phenylenediisocyanate), also named toluene-2,4-diisocyanate (TDI), from toluene-diamine (4-methyl-m-phenylenediamine) also named toluene-2,4-diamine (TDA) which is used to make flexible polyurethane foams. Used as gelatinizing-plasticizing agent. https://echa.europa.eu/documents/10162/b1176fd0-799d-4c08-a908-755a1c82181f
2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1	UV-protection agent in plastics, rubber and polyurethanes . In polymers such as polypropylene, high density polyethylene , unsaturated polyester , styrene-based thermoplastic elastomer , polyamide, acrylonitrile butadiene styrene, impact polystyrene, polyvinylidenechloride, chloropride, cyhloroprene rubber . https://echa.europa.eu/documents/10162/755b24e4-40dc-455b-afc0-b5e4e9045701
2,4,6-tri-tert-butylphenol	732-26-3	Serves as an additive in the manufacture of fuels. https://echa.europa.eu/documents/10162/e18f06a6-1e9b-5af7-b422-f2dda6a1a01e

2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7	PBT (Article 57 d), vPvB (Article 57 e). Used as UV-absorbers for plastics, rubber, polyurethanes . https://echa.europa.eu/documents/10162/13638/annex_xv_svhc_ec_223-346-6_uv320_en.pdf
2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1	Is a photosensitive agent in the manufacture of printing inks, pigmented coatings and photopolymers for imaging applications. These uses involve industrial and professional workers. The mechanism of photo-curing is initiated by UV-induced cleavage of the substance. https://echa.europa.eu/documents/10162/82edd904-8cb3-c4aa-cc14-e1ce8c5813c0
2-(dimethylamino)-2-[(4-methylphenyl)methyl]-1-[4-(morpholin-4-yl)phenyl]butan-1-one	119344-86-4	In the formulation of coatings and UV-inks found in metal, plastic, and rubber parts. https://echa.europa.eu/documents/10162/601b9c53-b7bf-6f39-50d4-b932a1e531f5
2-Ethoxyethanol	110-80-5	Toxic for reproduction (article 57c). 2-Ethoxyethanol is used as a solvent and a chemical intermediate for the synthesis of ethylene glycol monoethyl ether acetate. Used as an industrial solvent for nitrocellulose, varnish removers, cleansing solutions, and dye baths. It has been used for the formulation of paints , lacquers, varnishes and printing inks . Evaporates during use is not detectable as a substance in hardware products. https://ntp.niehs.nih.gov/ntp/htdocs/st_rpts/tox026.pdf http://www.ecy.wa.gov/programs/hwtr/rtt/cspa/pdf/110805.pdf
2-Ethoxyethyl acetate (2-EEA)	111-15-9	Toxic for reproduction (article 57c). Was mainly used as a solvent in the chemical industry and for the formulation of paints, lacquers and varnishes for industrial use. This information is based on historic information and seems to have no relevance at present. https://echa.europa.eu/documents/10162/d02e2d1c-0f53-4cf6-aec8-f1697fcf2db3
2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	15571-58-1	Toxic for reproduction. Used as heat stabiliser for PVC . https://echa.europa.eu/documents/10162/21732369/anne_x_xv_svhc_ec_239-622-4_dote_en.pdf
2-Methoxyaniline; o-Anisidine	90-04-0	Carcinogenic (article 57 a). As an intermediate for a number of direct yellow, red and blue azo dyes and pigments and some acid dyes. printing inks (e.g. books, packings, cans), colouring of polymers (e.g. PVC, polyolefines, foam material, rubber), textile printing, paints for automobiles, walls). However, in all these applications, o-Anisidine is reacted to form the dye, and is not present in concentrations > 0.1% w/w in hardware articles. https://echa.europa.eu/documents/10162/c556ccd6-05be-41ab-a896-058ca6b8fae3
2-Methoxyethanol (ethylene glycol monomethyl ether; EGME)	109-86-4	Toxic for reproduction (article 57c) -A wide application as a solvent, chemical intermediate and solvent coupler of mixtures and water-based formulations. Is now mainly used as a chemical intermediate or as additive for fuels. In addition, it can also be used as industrial processing aid in different areas (e.g. in the manufacture of medical devices). Is also used for certain production steps of surface coating in aeronautics. Evaporates during use and is not detected in hardware products. https://echa.europa.eu/documents/10162/13640/svhc_axvr_ep_austria_cmr_2-methoxyethanol_en.pdf
2-methoxyethyl acetate	110-49-6	Was historically used as a process solvent for gums, resins, waxes, oils, manufacture of semiconductors, textile, painting, photographic films. etc. Was used as intermediate in industrial applications. https://www.ec.gc.ca/ese-ees/default.asp?lang=En&n=9F0069F1-1#s4
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	71868-10-5	Used in coating products, inks and toners and fillers, putties, plasters, and modelling clay. Also used in the manufacture of pulp, paper and paper products, chemicals, plastic products , and fabricated metal products. This substance is also used in industrial spraying, transfer of chemicals, roller or brushing applications, treatment of articles by dipping and pouring and mixing in open batch processes. Source: https://echa.europa.eu/brief-profile/-/briefprofile/100.100.260 Used in polymer production. Photoinitiator in coatings, adhesives , and inks for industrial and professional use. Used as an initiator in photo-curable material UV-curable coatings and inks. Source: https://www.chemicalbook.com/CASEN_71868-10-5.htm

2-methylimidazole	693-98-1	Catalyst, starting material, chemical intermediate or component in the manufacture of pharmaceuticals, photographic and photothermographic chemicals, dyes and pigments, agricultural chemicals and rubber Polymerization crosslinking accelerator and hardener for epoxy resin systems for semiconductor potting compounds and soldering mask as well as a component of numerous polymers including epoxy resin pastes, acrylic rubber-fluororubber laminates, films, adhesives, textile finishes, and epoxy silane coatings Dyeing auxiliary for acrylic fibers and plastic foams Mainly used in the manufacturing of fabricated metal products, machinery and equipment, transport equipment, and chemicals and chemical products (mainly paints, lacquers and varnishes) https://echa.europa.eu/documents/10162/6ee8909e-9353-fb64-f903-517c862c4f4f
3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	Toxic for reproduction (Article 57 c). Moisture scavenger for use in urethane coatings, sealants and elastomers. http://trc-canada.com/detail.php?CatNum=E679630&CAS=143860-04-2&Chemical_Name=3-Ethyl-2-methyl-2-(3-methylbutyl)-oxazolidine&Mol_Formula=C11H23NO&Synonym=3-Ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine;%20Zoldine%20MS-PLUS
4-(1,1,3,3-tetramethylbutyl)phenol	140-66-9	Equivalent level of concern having probable serious effects to the environment (article 57 f). Used as an intermediate for the production of phenolic resins, non-ionic surfactants and rubber additives. OP is also used for the manufacturing of antioxidants, fuel oil stabilizers, adhesives, inks, dyestuffs, fungicides, bactericides, and for vulcanizing synthetic rubber. At least 95-98% is chemically altered before reaching the consumer market. The remaining 2-5% are usposed to be used in fuel for aeroplanes in the USA. http://www.inchem.org/documents/sids/sids/140669.pdf
4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated [covering well-defined substances and UVCB substances, polymers and homologues] (4-tert-Octylphenol ethoxylates) (4-tertOPnEO)	-	Equivalent level of concern having probable serious effects to the environment (Article 57 f). Used in formulation of paints, industrial end-use of paints, varnish or adhesive, consumer and professional end-use of paints and other products, in emulsion polymerisation, and as an intermediate in the production of ethersulphates. Not expected above 0.1% w/w in EEE. http://echa.europa.eu/documents/10162/acedb3ea-0cf5-40d0-8f97-6881d73bfee1
4,4'- Diaminodiphenylmethane (MDA)	101-77-9	Carcinogenic (article 57a). Intermediate in the manufacture of high performance polymers. Intermediate in processing to 4-4'methylenebis(cyclohexaneamine) and other polymeric isocyanates which are used to manufacture polyurethane foams. Hardener in epoxy resins. Hardener in adhesives. MDA is also used as a curing agent for epoxy resins and urethane elastomers, as a corrosion preventative for iron, as an antioxidant for lubricating oils, as a rubber processing chemical, as an intermediate in the manufacture of elastomeric fibers (e.g., Spandex), and in the preparation of azo dyes. However, the substance becomes fully reacted in a polymerisation process. https://www.epa.gov/sites/production/files/2016-09/documents/4-4-methylenedianiline.pdf
4,4'-(1-methylpropylidene)bisphenol; (bisphenol B; BPB)	77-40-7	It may be used in the manufacture of phenolic and polycarbonate resins. Source: https://echa.europa.eu/documents/10162/526bbb99-fc0e-2959-ef4-bac584db1f24
4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	561-41-1	Carcinogenic (Article 57a). Used in inks and dyes - ball point pens, computer cartridges, typewriter, ribbons, paper (copying, carbon), packaging, distemper, wood, lacquers, plastics, and feathers. https://echa.europa.eu/documents/10162/13638/svhc_axvr_ep_ec_209-218-2_pub_en.pdf
4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	90-94-8	Carcinogenic (Article 57a). Important intermediate in the manufacture of triphenylmethane dyes, in the production of polymers, additive in dyes and pigments, acting as photosensitizer, as a process chemical for electronic circuit board manufacture. Michler's Ketone is not expected in concentrations > 0.1% w/w in articles. https://echa.europa.eu/documents/10162/13638/svhc_axvr_ep_michlers_ketone_pub_en.pdf
4,4'-methylenedi-o-toluidine	838-88-0	Carcinogenic (Article 57a). Chemical intermediate for dyes. http://wfcache.advantech.com/www/csr/pdf/quality_assurance/advantech%20reach%20declaration.pdf

6-methoxy-m-toluidine (p-cresidine)	120-71-8	Carcinogenic (Article 57a). Is used exclusively as a synthetic chemical intermediate to produce azo dyes and pigments, such as FD&C red no. 40 and C.I. direct black 17, direct blue 67, direct blue 126, direct green 26, direct orange 34, direct orange 83, direct red 79, direct violet 51, direct yellow 41, disperse black 2, direct orange 72, and direct violet 9. The dyes made with p-cresidine have been produced commercially in the United States and are used in the food and textile industries https://ntp.niehs.nih.gov/ntp/roc/content/profiles/cresidine_e.pdf
Acetic acid, lead salt, basic	51404-69-4	Is a RoHS substance. Toxic for reproduction (Article 57 c), ph-regulators, flocculants, precipitants, neutralisation agents, paints, coatings, thinners , paint removers, fillers, putties and plasters. The sectors of use reported in the registrations include manufacture of chemicals, formulation and packaging of mixtures and production of computer, electronic/optical products and electrical equipment. https://www.qsartoolbox.org/documents/10162/3d3acd38-cf45-44a4-b1ee-a65e98e06848
Acids generated from chromium trioxide and their oligomers. Names of the acids and their oligomers: Chromic acid, Dichromic acid, Oligomers of chromic acid and dichromic acid.	13530-68-2, 7738-94-5	RoHS substances. Carcinogenic (article 57a). Metal finishing for electroplating e. g. hard chrome plating, decorative or bright-chrome plating, conversion coatings, e.g. passivation of zinc, aluminium, cadmium and brass, manufacture of wood preservation products, pigment manufacture, manufacture of paints, varnishes and inks putty (anticorrosive, dye), production of polyethylene and other plastics. Because of rinsing or reduction processes these substances are not detectable in finished hardware products. https://echa.europa.eu/documents/10162/13640/svhc_axvr_ep_germany_cm_r_acids_cr-trioxide_en.pdf
Acrylamide	79-06-1	Used in the production of polyacrylamides (floculator) https://echa.europa.eu/documents/10162/50218bf9-ba0f-4254-a0d9-d577a5504ca7 http://enhs.umn.edu/current/5103/acryl/uses.html
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins, SCCPs)	85535-84-8	PBT and vPvB (articles 57 d and 57 e). In metal working fluids (as an extreme pressure additive in metal working fluids), sealants, as flame retardants in rubbers and textiles, in leather processing and in paints and coatings. Also found multiple times in plastic cables https://echa.europa.eu/documents/10162/f343cb93-2c44-4f19-91e8-4c0730edf604
Aluminosilicate Refractory Ceramic Fibres <i> are fibres covered by index number 650-017-00-8 in Annex VI, part 3, table 3.1 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, and fulfil the three following conditions: a) oxides of aluminium and silicon are the main components present (in the fibres) within variable concentration ranges b) fibres have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometres (µm) c) alkaline oxide and alkali earth oxide (Na2O+K2O+CaO+MgO+BaO) content less or equal to 18% by weight</i>	-	Carcinogenic (article 57 a). RCF is a high-temperature insulating fibre sold chiefly for industrial applications as insulation for industrial furnaces, pipes, ducts, and cables , as fire protection for buildings and industrial process equipment, as aircraft/aerospace heat shields, and in automotive uses, such as catalytic converters, metal reinforcements, heat shields , brake pads, and air bags. RCF is produced in the United States, Mexico, Canada, Brazil, Venezuela, South Africa, Australia, Japan, China, Korea, Malaysia, and Taiwan and several countries in Europe. https://echa.europa.eu/documents/10162/47c8a92c-8fb4-4b0f-85b8-64037ad542ad
Ammonium dichromate	7789-09-5	Is a Cr6+ compound. Carcinogenic, mutagenic and toxic for reproduction (articles 57 a, 57 b and 57 c). Magnetic tape manufacture, catalyst manufacture, mordant in dyeing and pigment manufacture. Also used in cathode ray tube but below 0.1% w/w. https://echa.europa.eu/documents/10162/f5f958a9-8ec8-45ba-b30a-0d7a143b6a12
Ammonium pentadecafluorooctanoate (APFO)	3825-26-1	APFO is used as an emulsion stabilizer to manufacture polyvinylidene fluoride (PVDF) and other fluorinated polymers and elastomers and can be found in concentrations up to 1% w/w in plastics . Residues are suspected in several industries textile finishing, electroplating and paper. There are a number of products containing PFOA such as textiles, carpets, upholstery, paper, leather, toner, cleaning agents and carpet care solutions, sealants, floor waxes, paints, impregnating agents, electrical wire insulation , specialist circuit boards , fire fighting foam etc. https://echa.europa.eu/documents/10162/aae931c4-51e7-5f5f-fc54-25fa013dcee7
Anthracene	120-12-7	PBT (article 57d). Anthracene is used in the artificial production of the red dye alizarin. It is also used in wood preservatives, insecticides, and coating materials. Anthracene is colorless but exhibits a blue fluorescence under ultraviolet light. Plastics such as polyvinyltoluene can be doped with anthracene to produce a plastic scintillator. https://deq.mt.gov/Portals/112/Land/hazwaste/documents/Anthracene.pdf

Anthracene oil	90640-80-5	Carcinogenic, PBT and vPvB (articles 57a, 57d and 57e). No uses known in electrical equipment. http://www.ecsn-uk.org/Legislation/REACH/7REACH-2nd%20batch%20SVHC%20Dec09v2.pdf
Anthracene oil, anthracene paste	90640-81-6	Carcinogenic, mutagenic, PBT and vPvB (articles 57a, 57b, 57d and 57e) No uses known in electrical equipment. http://www.ecsn-uk.org/Legislation/REACH/7REACH-2nd%20batch%20SVHC%20Dec09v2.pdf
Anthracene oil, anthracene paste, anthracene fraction	91995-15-2	Carcinogenic, mutagenic, PBT and vPvB (articles 57a, 57b, 57d and 57e) No uses known in electrical equipment. http://www.ecsn-uk.org/Legislation/REACH/7REACH-2nd%20batch%20SVHC%20Dec09v2.pdf
Anthracene oil, anthracene paste, distn. lights	91995-17-4	Carcinogenic, mutagenic, PBT and vPvB (articles 57a, 57b, 57d and 57e) No uses known in electrical equipment. http://www.ecsn-uk.org/Legislation/REACH/7REACH-2nd%20batch%20SVHC%20Dec09v2.pdf
Anthracene oil, anthracene-low	90640-82-7	Carcinogenic, mutagenic, PBT and vPvB (articles 57a, 57b, 57d and 57e) No uses known in electrical equipment. http://www.ecsn-uk.org/Legislation/REACH/7REACH-2nd%20batch%20SVHC%20Dec09v2.pdf
Arsenic acid	7778-39-4	Carcinogenic (article 57 a). Use as fining agent in the manufacture of speciality glass ; Use in the production of copper foil for printed circuit boards . However arsenic acid decomposes during the manufacture processes. https://echa.europa.eu/documents/10162/b35abcbc-6a00-41d2-99c5-f3b3d389a4f0
Barium diboron tetraoxide	13701-59-2	Coating of PVC truck foil and electrical wires. Paints, coatings, thinners, and paint removers. https://echa.europa.eu/documents/10162/a1643f51-bfb7-7b80-80ad-1dfe70ac6796
Benz[a]anthracene (BaA)	56-55-3, 1718-53-2	Carcinogenic (Article 57a). PBT (Article 57d). vPvB (Article 57e). Used in research laboratories. Found in coal tar, roasted coffee, smoked foods, domestic heating, automobile exhaust. Is also formed during chemical manufacturing. Traces may be found in plastics and rubber. http://nj.gov/health/eoh/rtkweb/documents/fs/0193.pdf
Benzene-1,2,4-tricarboxylic acid 1,2 anhydride; trimellitic anhydride; TMA	552-30-7	Respiratory sensitising properties (Article 57(f) - human health). Used in the synthesis of plasticisers for PVC resins. Smaller amounts are used as a reactant in wire and cable insulation enamels and polyester resins for powder coatings. https://chemicalwatch.com/66110/eu-commission-identifies-tma-as-svhc
Benzo[def]chrysene	50-32-8	Carcinogenic (Article 57a), Mutagenic (Article 57b), Toxic for reproduction (Article 57c), PBT (Article 57 d), vPvB (Article 57 e). Production of substance by distillation of coal tar or as by-product, Use in carbon and graphite industry, Use in the aluminium industry, Use in electro-steel industry / in products in the metallurgic smelting industry, Formulation / end use of adhesives, paints , waterproof material, binder in asphalt industry, as fuel, for carbon black production, or for coke / briquette production. May be found in rubber or plastic components (banned use under Reach Annex XVII) https://echa.europa.eu/documents/10162/75eb6bd5-3375-4d68-854c-138fb87f0067
Benzo[ghi]perylene	191-24-2	PBT and vPvB (articles 57 d and 57 e). Only relatively small amounts of benzo(g,h,i)perylene are intentionally manufactured. It is extracted from coal tar to be used in dyes. It is also found (as part of a complex mixture of PAHs) in creosote, tar paints, waterproof membranes and other products (plastics, pesticides, explosives and drugs) http://apps.sepa.org.uk/sripa/pages/substanceinformation.aspx?pid=236 https://archive.epa.gov/epawaste/hazard/wastemin/web/pdf/benzoper.pdf
Benzo[k]fluoranthene	207-08-9	Carcinogenic, PBT, vPvB. Is a polycyclic aromatic hydrocarbon (PAH) substance that is derived from coal or petroleum products and may be found in traces in rubber and plastics as well as carbon black, coatings, adhesives, road & construction applications and cleaning agents. https://echa.europa.eu/documents/10162/06cc1281-efd9-9845-0215-e6b0c94c94db
Benzyl butyl phthalate (BBP)	85-68-7	Is in the RoHS 10 substances list. Toxic for reproduction (article 57c). Used as a plasticizer of PVC or other polymers, adhesives (based on polyacrylics and polyvinylacetate), sealants and coating products paints (e.g based on polyurethane and polyacrylics) , inks and lacquers. https://echa.europa.eu/documents/10162/bad5c928-93a5-4592-a4f6-e02c5e89c299

Biphenyl-4-ylamine	92-67-1	Carcinogenic (Article 57a). Because of its carcinogenic effects, 4-aminobiphenyl has not been produced commercially in the USA since the mid-1950s. It was used as a rubber antioxidant and a dye intermediate in the past. https://www.epa.gov/sites/production/files/2016-08/documents/4-aminobiphenyl.pdf
Bis (2-ethylhexyl)phthalate (DEHP)	117-81-7	Is part of EU RoHS 10 substances list. Toxic for reproduction (article 57c). Equivalent level of concern having probable serious effects to the environment. Used as a plasticizer in polymers, such as PVC and vinyl chloride resins. https://www.epa.gov/sites/production/files/2016-09/documents/bis-2-ethylhexyl-phthalate.pdf
Bis(2-(2-methoxyethoxy)ethyl) ether - TetraEGDME	143-24-8	<ul style="list-style-type: none"> - In lithium-ion battery technology; - Manufacture of soldering fluxes and solder pastes, of computers, electronics, and optical products; - Production of binders for paints, adhesives; - Used in paints and adhesive removers; - HFC/CFC lubricant in automotive air conditioning, compressors; - Printing and reproduction of recorded media, - Solvent used in flue gas cleaning systems; - Volatile organic compounds (VOC) extractors, from solid wastes; - Additive for the fixation of methylated methylolmelamine resins in durable-press cotton and cellulosic fabrics https://echa.europa.eu/documents/10162/ec7ae316-5a0d-0c44-dbc0-e517db9eded0
Bis(2-ethylhexyl) tetrabromophthalate (TBPH) covering any of the individual isomers and/or combinations thereof (Brominated DEHP)	-	Electrical/electronic articles. Plastic and (nitrile) rubber articles e.g., flexible PVC, wires, and cable insulation. Adhesives and sealants. Additive in flame retardants. Film and sheeting, carpet backing, coated fabrics, and wall coverings. One component foam e.g., polyurethane foam. https://echa.europa.eu/documents/10162/b20c32ea-baac-f4b9-919f-eb2784203c24
Bis(2-methoxyethyl) ether (Diglyme, DEGDME)	111-96-6	Toxic for reproduction (article 57 c). In the production of plastic and rubber products. in sealed batteries as solvent of electrolytes . In electronic coatings as specialty thinner , in adhesives , and in syntactic foam for filling composite materials, paints , as well as in the production of semiconductor chips , and in automotive care products, lacquers, diesel fuels, for photolithography. https://echa.europa.eu/documents/10162/4d548701-9a4a-4783-8129-8bb4a517cc8c
Bis(2-methoxyethyl) phthalate (DMEP)	117-82-8	Toxic for reproduction (article 57 c). Plasticiser in the production of nitrocellulose, acetyl cellulose, polyvinyl acetate, polyvinyl chloride and polyvinylidene chloride intended for contact with food or drink, cover floors, shoes (lacquers, varnishes). Was found in personal communication products . It is also used as a solvent. DMEP can improve the durability and toughness of cellulose acetate (e.g. in laminated documents and can be used in "enamelled wire, film, high-strength varnish and adhesive. It can also be used in pesticide products internationally. https://echa.europa.eu/documents/10162/38458518-7e1d-49ff-b53d-d07963c1bceb
Bis(4-chlorophenyl) sulphone (BCPS)	80-07-9	Used in the production of Polymers, Rubbers, Insecticides https://echa.europa.eu/documents/10162/93187c7b-ea5b-b34e-f859-a36663ae1551
Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE)	1163-19-5	PBT (Article 57 d); vPvB (Article 57 e). Machinery, mechanical appliances, electrical/electronic articles (Coating and inks application) http://echa.europa.eu/documents/10162/0239f8aa-787b-42a5-aacc-62a34776f6c4
Bis(tributyltin)oxide (TBTO)	56-35-9	PBT (article 57d). Biocides, pesticides. Use in polyurethane foam, flooring, tiles and carpeting; back-coating of textiles. https://echa.europa.eu/documents/10162/13640/svhc_axvrcp_norway_pbt_tbto_20083006_en.pdf
Bisphenol A, 4,4'-(propane-2,2-diyl)diphenol	80-05-7	Used in the manufacture of polycarbonate plastic products and in epoxy resins (residues below 0.01%). Use in a variety of PVC goods , CDs AND DVDs. BPA is also used to develop dye in thermal paper. https://echa.europa.eu/chemicals-in-our-life/hot-topics/bisphenol-a https://www.vanderbend.nl/Files/5/17000/17605/Attachments/Product/11j69cq469zM36r8S7o0083dF4c97016.pdf

Boric acid	10043-35-3, 11113-50-1	Toxic for reproduction (article 57 c). Boric acid is used in industrial fluids – metalworking fluids, water treatment chemicals, fuel additives, welding, brazing, soldering fluxes, paints and coatings . This substance is also added in metallurgy process to prevent oxidation of metal surfaces. Boric acid is used to produce insulation, textile, fiber glass and borosilicate glass. Boric acid is added to adhesives derived from starch to achieve increased viscosity, quicker tack and better fluid properties. Boric acid makes long-lasting protection against wood destroying organisms therefore is the active substance in biocides. The enzyme stabilizing features of boric acid results in its addition to detergents, cosmetics and pharmaceuticals. Boric acid and other borates used in fertilizers deliver an essential micronutrient for plants. The substance is also used in photographic applications, laboratory chemicals, automotive lubricants and fluids. https://echa.europa.eu/documents/10162/13626/clh_report_boric_acid_en.pdf Reported use in polystyrene beads and PVC Hazardous substances in plastic materials, COWI in cooperation with Danish Technological Institute, 2013
Bumetrizole (UV-326)	3896-11-5	In adhesives, coatings, dyes, inks, metals, personal care, plastics, rubber, sealing, textile, and wax products. https://echa.europa.eu/documents/10162/25b247dd-bfced3a-f953-e6aa2dd11724
Butyl 4-hydroxybenzoate	94-26-8	In cosmetics, personal care products, and pharmaceuticals Heat/pressure transfer fluid in closed systems Transfer of chemicals, closed batch processing in synthesis or formulation, mixing in open batch processes, closed processes https://echa.europa.eu/documents/10162/4b52d00f-e629-5746-904c-64ef318c92a4
Cadmium	7440-43-9	Is a RoHS substance. Cadmium is used as a pigment in plastics , as a heat stabiliser , in NiCd Batteries , in alloys , as a plating for plugs/connectors, contacts and switches , and in optical glass and filters. https://echa.europa.eu/documents/10162/13641/annex_xv_dossier_cd_in_plastics_en.pdf Hazardous substances in plastic materials, COWI in cooperation with Danish Technological Institute, 2013
Cadmium carbonate	513-78-0	Is a RoHS Substance. Carcinogenic (Article 57a). Mutagenic (Article 57b). Specific target organ toxicity after repeated exposure (Article 57(f) - human health). May be used in fungicides and in chemical reagents. http://nj.gov/health/eoh/rtkweb/documents/fs/4090.pdf
Cadmium chloride	10108-64-2	Is a RoHS substance. Carcinogenic (Article 57a); Mutagenic (Article 57b); Toxic for reproduction (Article 57c); Equivalent level of concern having probable serious effects to human health (Article 57 f). Is not normally found in concentrations > 0.1% w/w in articles (e.g. parts, components, sub-assemblies etc) which are supplied for use in hardware products and electrical and electronic equipment. is used in the manufacture of fungicides, in dyeing and printing textiles and in metal finishing baths. http://nj.gov/health/eoh/rtkweb/documents/fs/0308.pdf
Cadmium fluoride	7790-79-6	Is a RoHS substance. Carcinogenic (Article 57 a). Mutagenic (Article 57 b). Toxic for reproduction (Article 57 c). In research applications. In certain phosphorus for luminescent screens . Other uses are for manufacturing of glass , in nuclear reactor control, for electric brushes, high-temperature dry-film lubricant, optical applications , and as starting material for crystals for lacer. https://echa.europa.eu/documents/10162/21732369/annex_xv_svhc_ec_232-222-0_cadmium_fluoride_en.pdf
Cadmium hydroxide	21041-95-2	Is a RoHS Substance. Carcinogenic (Article 57a). Mutagenic (Article 57b). Specific target organ toxicity after repeated exposure (Article 57(f) - human health). Is found in industrial Nickel Cadmium storage batteries, and may be used in Cadmium plating and in arking Cadmium Salt. http://nj.gov/health/eoh/rtkweb/documents/fs/4089.pdf
Cadmium nitrate	10022-68-1, 10325-94-7	Is a RoHS Substance. Carcinogenic (Article 57a). Mutagenic (Article 57b). Specific target organ toxicity after repeated exposure (Article 57(f) - human health). Is used to give a reddish-yellow luster to glass and porcelain, in photographic emulsion and as a laboratory reagent. http://nj.gov/health/eoh/rtkweb/documents/fs/4088.pdf
Cadmium oxide	1306-19-0	Is a RoHS substance. Cadmium oxide is used as a heat stabiliser, in high quality power switching contacts and relays, and as photoelectric applications. Used in electroplating semi-conductors, metal alloys, and batteries , as a catalyst, intermediate and vermicide, and in making glass . http://nj.gov/health/eoh/rtkweb/documents/fs/2200.pdf

Cadmium sulphate	10124-36-4; 31119-53-6	<p>Is a RoHS substance. Carcinogenic (Article 57 a). Mutagenic (Article 57 b). Toxic for reproduction (Article 57 c). Used in Phosphors and Glass. Uses Mainly used dyeing on cotton, also used dyeing on cambric, viscose and vinylon. Cadmium alloys are used as a control absorber and shield in nuclear reactors. Some cadmium compounds are used in batteries, semiconductors, and photoconductive cells. Cadmium sulfide photoconductive cell provides a high dark-light resistance ratio. Cadmium silver oxide cell is an alkaline-electrolyte cell which is used as a primary battery or a secondary-battery than can be rechargeable. Cadmium telluride is used in photoconductive cell which can be operated at ambient temperatures up to 400 C. It is used in solar cells and infrared, nuclear-radiation, and gamma-ray detectors. Cadmium selenide is a photoconductive and semiconductor material used in a cell where a fast response time and high sensitivity to longer wavelengths of light is required. Cadmium is used to produce luminous pigment and fluorescent pigment which absorb light energy and electromagnetic radiations and release visible light as energy of desired wavelength. The principal cadmium pigments are consisted of cadmium sulfides and sulfoselenides. Cadmium sulfide is responsible for yellow color and cadmium selenide is for red. cadmium pigments are used in the coloring of plastics and paints which hot temperature resistance is required. Cadmium is used in the production of various salts. However Cadmium shulphate is not exepcted above 0.1% w/w in EEE articles or batteries.</p>
Cadmium sulphide	1306-23-6	<p>Is a RoHS substance. Cadmium sulphide is used as a yellow colorant in plastics, glass and ceramics, and is found in photoelectric devices including photoresistors, solar cells and piezoelectric transducers. Is used in photoconductors, dandruff shampoos, pigments, electronic components and solar cells. http://nj.gov/health/eoh/rtkweb/documents/fs/3081.pdf</p>
Calcium arsenate	7778-44-1	<p>Carcinogenic (article 57 a). Herbicide, insecticide, molluscicide and fungicide. Weather-resistant wood treatment. http://nj.gov/health/eoh/rtkweb/documents/fs/0310.pdf</p>
Chromium trioxide	1333-82-0	<p>Is a RoHS substance. Carcinogenic and mutagenic (articles 57 a and 57 b). Metal finishing, manufacture of wood preservation products, catalyst manufacture, chromium dioxide manufacture and pigment manufacture. However is used in water. Because of the rinsing processes, it is not detectable in articles. https://echa.europa.eu/documents/10162/f5f958a9-8ec8-45ba-b30a-0d7a143b6a12</p>
Chrysene (Benzo(a)phenanthrene)	218-01-9, 1719-03-5	<p>Carcinogenic (Article 57a). PBT (Article 57d). vPvB (Article 57e). Chrysene is found in the coal tar pitch that industry uses to join electrical parts. Chrysen is also used in the manufacture of some dyes. It is also found in creosote, a chemical used to preserve wood. However, is it most often used as a by-product from imcomplete combustion and may be found in traces in rubber, plastics and black colourants. https://www.sciencedirect.com/topics/chemistry/chrysene</p>
Cobalt dichloride	7646-79-9	<p>Carcinogenic and toxic for reproduction (articles 57 a and 57 c). Cobalt-based pigments, additives and drying agents in paints. Catalyst/promoter in resins and plastics. Printing inks. Cobalt is present in magnets, welding rods (also in the smoke) and welding stainless steel, glass, lubricating oils and animal feeds. Cobalt is used in the rubber tire industry as an oxidizing agent in automobile exhaust control and as a catalyst or accelerator for the production of terephthalate, polyester and acrylate plastics. https://www.smartpractice.com/dermatologyallergy/pdfs/allergens/Cobalt-Dichloride.pdf</p>
Cobalt(II) carbonate	513-79-1	<p>Carcinogenic and toxic for reproduction (articles 57 a and 57 c). Use in the manufacture of other chemicals, as fertilisers, calcination/sintering process in the context of the manufacture/production of inorganic pigments & frits, glass, ceramic ware, surface treatment processes passivation / anti-corrosion electroplating / electroforming colour anodizing, catalyst, animal food supplement but is not detectable as a substance in EEE. https://echa.europa.eu/documents/10162/13640/background_cobalt_carbonate_en.pdf</p>
Cobalt(II) diacetate	71-48-7	<p>Carcinogenic and toxic for reproduction (articles 57 a and 57 c). Manufacture of catalysts, Hydrotreating; Oxidation catalyst; Hydrodesulphurisation; Fischer Tropsch (GTL), Surface treatment Alloys, Production of pigments, Dyes, Adhesion, Animal food supplement. But not detectable in finished products. https://echa.europa.eu/documents/10162/13640/svhc_axvr_ep_netherlands_cm_r_co-diacetate_en.pdf</p>

Cobalt(II) dinitrate	10141-05-6	Carcinogenic and toxic for reproduction (articles 57 a and 57 c). used in the manufacture of other chemicals including catalysts. Further applications may include surface treatment and in LiOn, NiCd and NiMH batteries. Is not detectable in these finished products. https://echa.europa.eu/documents/10162/13640/svhc_axvr_ep_netherlands_cm_r_co-dinitrate_en.pdf
Cobalt(II) sulphate	10124-43-3	Carcinogenic and toxic for reproduction (articles 57 a and 57 c). Cobalt(II) sulphate is mentioned to be used in the manufacture of active substances for the production of batteries (it seems that production of batteries requires prior manufacture of another cobalt compound from cobalt(II) sulphate). This use concerns for example Li-ion and alkaline rechargeable (such as NiCd) batteries, which are used e.g. in the automotive market (HEV Vehicle and Electric Vehicle) and storage applications (for intermittent renewable energy generation; photovoltaic and wind). Surface treatment processes: Passivation / Anti-corrosion (e.g. conversion layers/coatings on automotive parts, aerospace, military, electrical etc.). Electroplating / Electroforming (e.g. technical / magnetic / decorative plating; application in aerospace, automotive, telecommunication, electronics, storage media, military, metal logos, buckles, medical technology). For colour anodizing, ceramic pigments, fusible glass pigment. Is not detectable in finished products. https://www.echa.europa.eu/documents/10162/ef958831-f28c-47f1-b159-ab4a32b53b2f
Cyclohexane-1,2-dicarboxylic anhydride [1], cis-cyclohexane-1,2-dicarboxylic anhydride [2], trans-cyclohexane-1,2-dicarboxylic anhydride [3] <i>[The individual cis- [2] and trans- [3] isomer substances and all possible combinations of the cis- and trans-isomers [1] are covered by this entry]</i>	85-42-7, 13149-00-3, 14166-21-3	Equivalent level of concern having probable serious effects to human health (Article 57 f). Used in the manufacture of polyester and alkyd resins and plasticizers for thermoplastic polymers. The anhydrides are also used as hardeners for epoxy resins and chain cross-linkers for thermoplastic polymers. For HHPA specific the following uses are identified: Manufacture of alkyd resins, plasticizers, insect repellents, rust inhibitors and as hardener in epoxy resins. Used as an intermediate and react to form other substances therefore are not detectable. https://www.echa.europa.eu/documents/10162/6a9bf645-3e36-4540-b9b8-48da3afb8245
Decamethylcyclotrasiloxane; D5	541-02-6	PBT and vPvB (articles 57 d and 57 e). Intermediate in the production of PDMS polymers and a small number of commercial dry cleaners. Use in electronics applications, personal care products, nonmetal surface treatment, household care products, dry cleaning. https://www.dowcorning.com.cn/zh_CN/content/about/about_outehs/EHSPortalFiles/GPS_Safety_Report_541-02-6_D5.pdf ; https://echa.europa.eu/documents/10162/29085596/20200305_annexXIV_recommendation_consultation.pdf/27400793-f191-261a-6e35-e03cabb39b41
Diarsenic pentaoxide	1303-28-2	Carcinogenic (article 57a). Wood preservation, glass, intermediate. https://echa.europa.eu/documents/10162/13640/prioritisation_diarsenic_pentaoxide_en.pdf
Diarsenic trioxide	1327-53-3	Carcinogenic (article 57a). Glass (tubes, bulbs, optical glass, LCD panels) , wood preservation, paints enamels. https://echa.europa.eu/documents/10162/13640/svhc_axvr_ep_france_cm_r_trias_20083006_en.pdf https://www.qsartoolbox.org/documents/10162/dfb7745d-4e27-408f-89bb-3f44c97467e2
Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3	Equivalent level of concern having probable serious effects to human health (Article 57 f). Plastic articles (Parquet underlay material in short-roll form, Wallpaper) http://echa.europa.eu/documents/10162/04bb48dc-6b6a-4cab-abd6-6f3b3d8d744c
Diboron trioxide	1303-86-2	Toxic for reproduction (Article 57 c). Glass Production, Glass fibre , Frits production, Flame retardants, inks, paints, adhesive, crystal growth. https://echa.europa.eu/documents/10162/13638/svhc_axvr_ep_diboron_trioxide_en.pdf
Dibutyl phthalate (DBP)	84-74-2	Is part of the RoHS 10 substances list. Toxic for reproduction (article 57c). Used as a plasticizer in polymers , such as PVC. DBP can also be used as a gelling aid, as a solvent, as an antifoam agent or as a lubricant. https://echa.europa.eu/documents/10162/13641/dbp_ech_a_review_report_2010_6_en.pdf

Dibutylbis(pentane-2,4-dionato-O,O')tin	22673-19-4	In adhesives, sealants, coatings and paints, thinners, paint removers, paper, and board treatment products, dyes, finishing and impregnation products including bleaches and other processing aids, polymer preparations in production of resins and rubber, and textile dyes for the manufacture of textiles, leather, fur, wood and wood products, pulp, paper and paper products, rubber products, computer, electronic and optical products, electrical equipment, building & construction work and general manufacturing, e.g. machinery, equipment, vehicles, other transport equipment. https://echa.europa.eu/documents/10162/65690557-4271-c418-e139-538bfd00d1cd
Dibutyltin dichloride (DBTC)	683-18-1	Toxic for reproduction (Article 57 c). Industrial use as an additive for the production of rubber tyres, stabiliser in PVC plastics (water pipes, packing materials, textile products), catalyser in the production of polyurethanes and silicones, (foam plastics, glue/sealants), glass (coatings), insulators in electronics and cables , deworming agent for poultry, polyurethanes, transparent plastic use in insulations and coatings, medical equipment. https://www.echa.europa.eu/documents/10162/8a520ac1-f460-447f-9ac4-388768fe0784
Dichromium tris(chromate)	24613-89-6	Carcinogenic (article 57 a). Surface treatment of metals, industrial surface treatment of metals- reactive anti-corrosion primer for steel and aluminium. However, it is not detectable as a substance in finished parts. https://echa.europa.eu/documents/10162/13640/svhc_axvr_ep_france_cm_r_dichromium_tris_chromate_20110829_en.pdf
Dicyclohexyl phthalate; DCHP	84-61-7	Toxic for reproduction (Article 57c) and Endocrine disrupting properties (Article 57(f) - human health). Plasticizer to modify the properties of synthetic resins (nitrocellulose, ethyl cellulose, chlorinated rubber, polyvinyl acetate, polyvinyl chloride, and other polymers resins). In paper finishes it makes printers ink water-resistant. Plasticiser for plastics and rubber, phlegmatizer for organic peroxides https://toxnet.nlm.nih.gov/cgi-bin/sis/search/a?dbs+hsdb:@term+@DOCNO+5246 https://echa.europa.eu/documents/10162/13626/clh_report_dicyclohexyl_phthalate_en.pdf ; https://echa.europa.eu/documents/10162/29085596/20200305_annexXIV_recommendation_consultation.pdf/27400793-f191-261a-6e35-e03cabb39b41
Diethyl sulphate	64-67-5	Carcinogenic (Article 57a); Mutagenic (Article 57b). Diethyl sulfate is an important chemical, used in the production of other commercial chemicals, detergents, dyes, agricultural chemicals, pharmaceuticals and a variety of other products. Diethyl sulfate is primarily used as an ethylating agent, and also as an accelerator in the sulfation of ethylene and in some sulfonations. (1,6) Diethyl sulfate is also a chemical intermediate for ethyl derivatives of phenols, amines, and thiols, and as an alkylating agent. https://www.epa.gov/sites/production/files/2016-09/documents/diethyl-sulfate.pdf http://apps.sepa.org.uk/spripa/Pages/SubstanceInformation.aspx?pid=40
Dihexyl phthalate (DnHP)	84-75-3	Dihexyl phthalate (DnHP) is used as a plasticiser in polyvinyl chloride PVC and other plastic polymers . https://echa.europa.eu/documents/10162/0fc1bf32-1cd4-4294-a7fc-7ba778f78f13
Diisobutyl phthalate (DiBP)	84-69-5	Is part of the RoHS 10 substances list. Toxic for reproduction (article 57c). Used as a plasticizer (in PVC), for coating products, fillers, putties, plasters, modelling clay and polymers. It is used in nail polish, cosmetics, lubricants , floor carpets, tapestry, clothing treatments, rubber dentistry settings, as a fuel stabilizer, in leather varnishes and lacquers, as a concrete additive, as an adjusting agent for lead chromate paint pigments , explosive material, lacquer manufacturing, and methyl methacrylate applications. DiBP is also used in printing inks for paper and packaging. In Australia, DiBP is imported for use a plasticizer in the manufacture of PVC and rubber and as a component of industrial adhesives and catalyst systems for polypropylene and fiberglass manufacture. https://echa.europa.eu/documents/10162/c6781e1e-1128-45c2-bf48-8890876fa719
Diisohexyl phthalate (DIHP)	71850-09-4	Lubricant in steering fluid and plasticizers: auto transmission lubricants rubber, plastics products and others. https://echa.europa.eu/documents/10162/a062e3f3-80b9-4e90-9848-dd73c42764df
Diisopentylphthalate (DIPP)	605-50-5	Toxic for reproduction (Article 57 c). Propellants and explosives. Plasticiser PVC . http://echa.europa.eu/documents/10162/dda9f6bb-3803-453e-8e67-ef2918d75d50

Dimethyl sulphate (DMS)	77-78-1	Carcinogenic (Article 57a). Mainly used as a chemical intermediate, in the manufacturing of dyes, perfumes, pharmaceuticals, for the separation of mineral oils, and for the analysis of automobile fluids. https://echa.europa.eu/documents/10162/3d2e4243-8264-4d09-a4ab-92dde5abfadd
Dinoseb (6-sec-butyl-2,4-dinitrophenol)	88-85-7	Toxic for reproduction (Article 57 c). Herbicide, insecticide. http://www.pic.int/Portals/5/DGDs/DGD_Dinoseb%20and%20salts%20and%20esters_EN.pdf
Diocetyl tin dilaurate, stannane, dioctyl-, bis(coco acyloxy) derivs., and any other stannane, dioctyl-, bis(fatty acyloxy) derivs. wherein C12 is the predominant carbon number of the fatty acyloxy moiety	3648-18-8 and others	- Widespread use for the manufacture of plastic products, fabrics, textiles, apparel, and leather; - Stabilizers and catalysts in the production of plastics, rubber, adhesives, and sealants, coatings and paints, thinners, paint removers, fillers, putties, plasters, modeling clay, metal surface treatment products, non-metal-surface treatment products, ink and toners, products such as pH regulators, flocculants, precipitants, neutralization agents, leather treatment products, paper, and board treatment products, polishes and wax blends, polymer preparations and compounds, textile dyes and impregnating products as well as washing and cleaning products. https://echa.europa.eu/documents/10162/8326d2d9-ad73-ab30-4ea9-d284bd26dd91
Dioxobis(stearato)trilead	12578-12-0	Is a RoHS substance. Toxic for reproduction (Article 57 c). Professional use of plastics (PVC processing, professional use of plastics) . http://echa.europa.eu/documents/10162/38849185-8b5d-41ce-bc04-6e2e7944b33e
Dipentyl phthalate (DPP)	131-18-0	Dipentyl phthalate (DPP) is used as a plasticiser in PVC and other plastic polymers . https://echa.europa.eu/documents/10162/d55c182b-f063-4955-969d-5684584d17b2
Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	75980-60-8	Plastics, Coating products, Adhesives and sealants, Photochemicals, Inks and toners, Polymers and fillers, Putties, Plasters, Modelling clay, Fabrics, textiles, and apparel, Paper https://echa.europa.eu/documents/10162/9ba64289-7fba-350c-ab0a-f72cc70681c3
Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	573-58-0	C.I. Direct Red 28, also known as Congo Red, is used to color plastics , textiles, paper and PVA Polyvinyl acetate. https://echa.europa.eu/documents/10162/13640/ec_209-358-4_ci_direct_red_28_annex_xv_svhc_pub_en.pdf
Disodium 4-amino-3'-[[4'-[[2,4-diaminophenyl]azo][1,1'-biphenyl]-4-yl]azo]-5-hydroxy-6-(phenylazo)naphthalene-2,7-disulphonate (C.I. Direct Black 38)	1937-37-7	C.I. Direct Black 38 is used to dye cellulose, wool, silk, bast, and hog's hair; print cellulose, wool and silk; dye leather, plastics , vegetable-ivory buttons and wood flour used as a resin filler; stain wool, silk, acetate, nylon , wood and biological materials, and produce aqueous inks. It has reportedly been used in hair dyes. https://echa.europa.eu/documents/10162/13640/ec_217-710-3_ci_direct_black_38_annex_xv_svhc_pub_en.pdf
Disodium octaborate	12008-41-2	Toxic for reproduction (Article 57c). Anti-freeze products, heat transfer fluids, lubricants and greases and washing & cleaning products (furniture, toys, construction materials, curtains, foot-wear, leather products, paper and cardboard products, electronic equipment, machine wash liquids/detergents, automotive care products, paints and coating or adhesives, fragrances and air fresheners, metal, wooden and plastic construction and building materials). This substance has an industrial use resulting in manufacture of another substance (use of intermediates). Coatings, paints, construction materials, adhesives, fertilisers https://echa.europa.eu/substance-information/-/substanceinfo/100.031.388 ; https://echa.europa.eu/documents/10162/29085596/20200305_annexXIV_recommendation_consultation.pdf/27400793-f191-261a-6e35-e03cabb39b41
Disodium tetraborate, anhydrous (Borax)	1303-96-4, 1330-43-4, 12179-04-3	Toxic for reproduction (article 57 c). Wide-dispersiveness of uses: Micronutrient, flame retardant , complexing agent, stabiliser, corrosion inhibitor, flux agent , lubricant , buffering agent / pH-regulator, viscosity adjustor, oxidising agent, metal surface cleaning , etc. https://www.qsartoolbox.org/documents/10162/4a3e7046-abf0-4361-8a9a-28cb2227d480
Dodecachloropentacyclo[12.2.1.16.9.02.13.05.10]octadeca-7,15-diene ("Dechlorane Plus™") covering any of its individual anti- and syn-isomers or any combination thereof	-	vPvB (Article 57e). Flame retardant in electronic wiring and cables, automobiles, hard plastic connectors and plastic roofing materials. Is an alternative for Decabromodiphenyl ether (DecaBDE). https://www.canada.ca/en/health-canada/services/chemical-substances/fact-sheets/chemicals-glance/dechlorane-plus.html

Dodecamethylcyclohexasiloxane, D6	540-97-6	PBT and vPvB (articles 57 d and 57 e). Electronic articles, nonmetal surface treatment. Washing & cleaning products, polishes and waxes and cosmetics and personal care products. Widespread uses. https://echa.europa.eu/substance-information/-/substanceinfo/100.007.967 ; https://echa.europa.eu/documents/10162/29085596/20200305_annexXIV_recommendation_consultation.pdf/27400793-f191-261a-6e35-e03cabb39b41
Ethylenediamine; EDA	107-15-3	Respiratory sensitising properties (Article 57(f) - human health). Use in the production of fungicides, chelating agents, wet-strength resins, epoxy curing agents, polyamide resins, surfactants, softeners, corrosion inhibitors, lubricating oil and fuel additives, and asphalt emulsifiers. https://www.osha.gov/dts/sltc/methods/organic/org060/org060.html
Fatty acids, C16-18, lead salts	91031-62-8	Is a RoHS substance. Toxic for reproduction (Article 57 c). PVC Processing. Professional use of plastics. PVC stabiliser. https://www.nicnas.gov.au/chemical-information/imap-assessments/imap-assessments/tier-ii-environment-assessments/lead-salts-of-long-chain-carboxylic-acids
Fluoranthene	206-44-0, 93951-69-0	PBT, vPvB. Is a polycyclic aromatic hydrocarbon (PAH) substance that is derived from coal or petroleum products and may be found in traces in rubber and plastics as well as carbon black, coatings, adhesives, road & construction applications and cleaning agents. https://echa.europa.eu/documents/10162/0d1ee6d4-1a47-0737-35c7-3503f0fca417 http://www.chemicaland21.com/specialtychem/finechem/FLUORANTHENE.htm
Formaldehyde, oligomeric reaction products with aniline (Polymeric MDA, PMDA)	25214-70-4	Carcinogenic (article 57 a). Curing agent for polymers and hardener in epoxy resins and adhesives (e.g. pipes, moulds). However PMDA is reacted during the production process and not found in finished articles). https://www.echa.europa.eu/documents/10162/13640/draft_backgdoc_technical_mda_en.pdf
Formamide	75-12-7	Toxic for reproduction (Article 57 c). For manufacture of sulfa drugs, other pharmaceuticals, herbicides, pesticides and the manufacture of hydrocyanic acid. It has been used as a softener for paper and fiber. It is a solvent for many ionic compounds. It has also been used as a solvent for resins and plasticizers. http://www.chemicalsubstanceschimiques.gc.ca/challenge-defi/summary-sommaire/batch-lot-5/75-12-7-eng.php
Furan	110-00-9	Carcinogenic (Article 57a). Furan is used primarily as an intermediate in the synthesis and production of tetrahydrofuran, pyrrole, and thiophene. Hydrogenation of furan over a nickel catalyst produces high yields of tetrahydrofuran and is a source of commercial tetrahydrofuran. Furan is also used in the formation of lacquers, as a solvent for resins, and in the production of agricultural chemicals, stabilizers, and pharmaceuticals. No expected in EEE. https://www.fda.gov/ohrms/dockets/ac/04/briefing/4045b2_07_NAS%20furan%20report.pdf
Glutaral (Glutaraldehyde; GA)	111-30-8	Biocide in many industries (paper, paint, food, wood, cosmetics, medical devices, etc.), leather tanning, x-ray film processing, with possible other applications. https://echa.europa.eu/documents/10162/ea9882b6-43f4-bf01-b54e-8ad9e4d047bf
Henicosfluoroundecanoic acid	2058-94-8	vPvB (Article 57 e). Used in the production of fluoropolymers (e.g. teflon) and Fluorotelomers and as additives and components in consumer and industrial products (paints, inks, coatings). Should not be present above 0.1% w/w per EEE article. https://echa.europa.eu/documents/10162/13638/SVHC_AC_CHECK_AXVREP_pub_218-165-4_Henicosfluoroundecanoic_acid_en.pdf
Heptacosfluorotetradecanoic acid	376-06-7	vPvB (Article 57 e). In the production of fluoropolymers and fluorotelomers and as additives and components in consumer and industrial products (paints, inks, coatings). Should not be present above 0.1% w/w per EEE article. https://www.echa.europa.eu/documents/10162/bd9c539e-19e0-4f67-a31a-0a6f5e8c9b8d
Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified: Alpha-hexabromocyclododecane Beta-hexabromocyclododecane Gamma-hexabromocyclododecane	25637-99-4, 3194-55-6 (134237-50-6) (134237-51-7) (134237-52-8)	PBT (article 57d). Brominated flame retardant used in Expanded Polystyrene (EPS), Extruded Polystyrene (XPS), High Impact Polystyrene (HIPS), Polymer dispersion for textiles. https://echa.europa.eu/documents/10162/13640/tech_rep_hbccd_en.pdf

Hexahydromethylphthalic anhydride [1], Hexahydro-4-methylphthalic anhydride [2], Hexahydro-1-methylphthalic anhydride [3], Hexahydro-3-methylphthalic anhydride [4] <i>[The individual isomers [2], [3] and [4] (including their cis- and trans- stereo isomeric forms) and all possible combinations of the isomers [1] are covered by this entry]</i>	19438-60-9, 25550-51-0, 48122-14-1, 57110-29-9	Equivalent level of concern having probable serious effects to human health (Article 57 f). Mainly used in the manufacture of polyester and alkyd resins and plasticizers for thermoplastic polymers. The anhydrides are also used as hardeners for epoxy resins and chain cross-linkers for thermoplastic polymers. electric and electronics field (curing agent for epoxy resin, sealing semiconductors, insulators, capacitors, LED light emitting diodes, digital displays...). Used as an intermediate and are reacted to form other substances, therefore are not detectable. https://www.echa.europa.eu/documents/10162/96184c0e-245a-49a2-8a69-691e156dbaf7
Hydrazine	302-01-2, 7803-57-8	Carcinogenic (article 57a). Intermediate in the production of agricultural chemicals such as maleic hydrazide, in the manufacture of chemical blowing agents which are used in the production of plastics such as vinyl flooring and automotive foam cushioning, as a corrosion inhibitor and water treatment agent, as a rocket propellant, and, to a lesser extent, as a reducing agent, in nuclear fuel reprocessing, as a polymerization catalyst, as a scavenger for gases. https://www.atsdr.cdc.gov/toxprofiles/tp100-c4.pdf
Imidazolidine-2-thione	96-45-7	Elastomer accelerator; chlorinated polyethylene (CPE) rubber vulcanizing accelerator agent. http://www.chemicalbook.com/ChemicalProductProperty_EN_CB8102852.htm
Isobutyl 4-hydroxybenzoate (IBP)	4247-02-03	Coating and paint products, fillers, putties, plasters, modelling clay, inks, and toners. Intermediate in chemical production or refinery processes. Medium risk in personal care products https://echa.europa.eu/documents/10162/05cf4875-0c1b-552f-4481-c22f15b6cb3e
Lead	7439-92-1	Toxic for reproduction (Article 57c). Is a EU RoHS substance. Many applications including in the electrical and electronic equipment.
Lead bis(tetrafluoroborate)	13814-96-5	Is a RoHS substance. Toxic for reproduction (Article 57 c). Is mostly used in a water solution. It is used in electroplating , and as a curing agent and catalyst. http://nj.gov/health/eoh/rtkweb/documents/fs/1105.pdf
Lead chromate	7758-97-6	Is a RoHS substance. Carcinogenic and toxic for reproduction (articles 57 a and 57 c). paints, non-consumer paints and coatings , printing inks, vinyl and cellulose acetate plastics, rubber and plastic , alkyl resin enamels. https://echa.europa.eu/documents/10162/13640/svhc_axvr_ep_france_cmr_lead_chromate_sulfate_red_20090831_en.pdf
Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	12656-85-8	Is a RoHS substance. Carcinogenic and toxic for reproduction (articles 57 a and 57 c). Paints and coating. Industrial paints using lead chromate pigments include automotive finishes, industrial and agricultural equipment, industrial baking enamels and air-dried finishes. https://www.ec.gc.ca/ese-ees/7B993FCF-F4B5-4C6F-885E-61EFD1BB2F8B/batch2_12656-85-8_en.pdf
Lead cyanamidate	20837-86-9	Is a RoHS substance. Toxic for reproduction (Article 57 c). Cyanamide is used in the production of other chemicals, as a fertiliser and as a plant growth regulator, in detergents, as a paper preservative, in photographic chemicals and in some pharmaceuticals. It is also added to textiles (to reduce creases and make them fire proof), to synthetic rubbers , to cements, is used as a metal cleaner or lubricant and in the refining of ores. http://apps.sepa.org.uk/spripa/Pages/SubstanceInformation.aspx?pid=31
Lead di(acetate)	301-04-2	Is a RoHS substance. Coatings and paints, thinners, paint removes, Fillers, putties, plasters, modelling clay, Intermediate. https://echa.europa.eu/documents/10162/13640/ec_206-104-4_lead+diacetate_annex_xv_svhc_pub.pdf
Lead diazide, Lead azide	13424-46-9	Is a RoHS substance. Toxic for reproduction (article 57 c). Initiator or booster in detonators used for both civilian and military uses, initiator in pyrotechnic devices used in military munitions (fuzes) and space shuttles/satellites. https://echa.europa.eu/documents/10162/13640/svhc_axvr_ep_echa_cmr_lead_diazide_20110829_en.pdf
Lead dinitrate	10099-74-8	Is a RoHS substance. Toxic for reproduction (Article 57 c). Used in making matches and explosives. In the dye and photography industries, and in process engraving. http://nj.gov/health/eoh/rtkweb/documents/fs/1108.pdf
Lead dipicrate	6477-64-1	Is a RoHS substance. Toxic for reproduction (article 57 c). Explosives. https://echa.europa.eu/documents/10162/13640/svhc_axvr_ep_echa_cmr_lead_dipicrate_20110829_en.pdf
Lead hydrogen arsenate	7784-40-9	Is a RoHS substance. Carcinogenic and toxic for reproduction (articles 57 a and 57 c). Used to kill insects, weeds and rodents. http://nj.gov/health/eoh/rtkweb/documents/fs/1098.pdf

Lead monoxide (lead oxide)	1317-36-8	<p>Is a RoHS substance. Toxic for reproduction (Article 57 c). Consumer use of sealed lead batteries. Professional use of batteries. Nut not detectable as a substance in batteries. Professional use of ceramics (including technical ceramics). Consumer use of rubber protection. Machinery, mechanical appliances, electrical/electronic articles (computer monitors and other devices containing cathode ray tubes). However, no lead monoxide should be expected in finished articles.</p> <p>http://echa.europa.eu/documents/10162/de860512-db1d-426d-8bb6-51e8108c6274</p>
Lead oxide sulfate	12036-76-9	<p>Is a RoHS substance. Toxic for reproduction (Article 57 c). Used to make other chemicals. Use: in lithography, battery acid solution treated fabrics, used in varnishes.</p> <p>https://pubchem.ncbi.nlm.nih.gov/compound/Lead_II_sulfate#section=Top</p>
Lead styphnate - Lead 2,4,6-trinitro-m-phenylene dioxide	15245-44-0	<p>Is a RoHS substance. Toxic for reproduction (article 57 c). Military use. munition pyrotechnics, powder actuated devices and detonators.</p> <p>https://echa.europa.eu/documents/10162/13640/svhc_axvr_ep_echa_cmr_lead_styphnate_20110829_en.pdf</p>
Lead sulfochromate yellow (C.I. Pigment Yellow 34)	1344-37-2	<p>Is a RoHS substance. Carcinogenic and toxic for reproduction (articles 57 a and 57 c). plastics colouring and painting/coatings. Printing ink.</p> <p>https://echa.europa.eu/documents/10162/13640/svhc_axvr_ep_france_cmr_lead_sulfochromate_yellow_20090831_en.pdf</p>
Lead titanium trioxide	12060-00-3	<p>Is a RoHS substance. Toxic for reproduction (Article 57 c). Machinery, mechanical appliances, electrical/ electronic articles</p> <p>http://echa.europa.eu/documents/10162/783da20b-44ad-4b01-b729-1c75d1098a1d</p>
Lead titanium zirconium oxide	12626-81-2	<p>Is a RoHS substance. Toxic for reproduction (Article 57 c). Machinery, mechanical appliances, electrical/electronic articles. Processing into electro-ceramic components.</p> <p>http://echa.europa.eu/documents/10162/bd91c829-6576-483d-a4a1-d2d502c8a795</p>
Lead(II) bis(methanesulfonate)	17570-76-2	<p>Is a RoHS substance. Toxic for reproduction (Article 57 c). Mainly used in plating processes (both electrolytic and electroless) for electronic components (such as printed circuit boards). The substance seems to also be used for batteries in special applications. Is removed from finished articles during washing and cleaning processes.</p> <p>https://echa.europa.eu/documents/10162/13638/svhc_axvr_ep_lead_methanesulfonate_en.pdf</p>
Medium-chain chlorinated paraffins (MCCP) [UVCB substances consisting of more than or equal to 80% linear chloroalkanes with carbon chain lengths within the range from C14 to C17]	-	<p>Flame retardants and secondary plasticizing additives in plastics (PVC, cables, paints, coatings, etc.), adhesives ('potting agents' in electronic equipment, printed circuit boards (PCBs), etc.), sealants (polysulphide, polyurethane, acrylic, and butyl sealants, etc.), rubber (butyl rubber, etc.), and textiles.</p> <p>Coolants and lubricants (working fluids) in machinery and manufacture for metal products (cutting, grinding).</p> <p>https://echa.europa.eu/documents/10162/d76192af-d18b-5a4e-2fc5-0219d09053a6</p>
Melamine	108-78-1	<p>Production of formaldehyde-based resins often used in the woodworking industry (e.g., laminate flooring, wood-based panels, surface-coating panels). Coatings for foams and to produce consumer goods like tableware. Intermediate for adhesives, lacquers, pigment, coatings, inks, rigid foams, polyurethane foams, rubbers, and polymers often used for fire safety applications. Leather manufacturing processes.</p> <p>https://echa.europa.eu/documents/10162/7e0e4a95-b942-350e-ba7d-7cf7aa652ab8</p>
Methoxyacetic acid	625-45-6	<p>Toxic for reproduction (Article 57 c). manufacture of chemicals and chemicals products, service to buildings and landscape activities, and category cleaning/washing agents. Other uses with low tonnage but several preparations included manufacture of food products, specialised construction activities, trade and repair of motor vehicles, and manufacture of fabricated metal product.</p> <p>https://www.echa.europa.eu/documents/10162/d7ad3263-83ac-4567-8fee-1a62406c51d2</p>
Methyloxirane (Propylene oxide)	75-56-9	<p>Carcinogenic (Article 57a); Mutagenic (Article 57b). Propylene oxide is used in three areas: as a monomer in polymer production; as an intermediate in the synthesis of other substances; and as a stabiliser for dichloromethane. The last of these accounts for only a small proportion of the tonnage used.</p> <p>http://echa.europa.eu/documents/10162/c9918161-1be3-4b76-9088-72eae9cfaca</p>
N-(hydroxymethyl)acrylamide	924-42-5	<ul style="list-style-type: none"> - Cosmetics and personal care - pH regulator - Detergents (consumer and professional applications) <p>https://echa.europa.eu/tr/substance-information/-/substanceinfo/100.003.260</p>

N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	101-61-1	Carcinogenic (Article 57a). Intermediate in the manufacture of dyes and pigments , including Methylene red, C.I. Basic Yellow 2, Basic Orange 14, Solvent Orange 15, and Solvent Yellow 34. Is not expected in concentrations above 0.1% w/w/ in articles. https://echa.europa.eu/documents/10162/13638/svhc_axvr_ep_michlers_base_pub_en.pdf
N,N-dimethylacetamide (DMAC)	127-19-5	Toxic for reproduction (article 57 c). The substance is mainly used for polymer dissolution in the man-made fibre production industry (textiles): acrylic, polyurethanes, meta-aramid fibres. This chemical or product is generally used in the following manner: - In the preparation of chemical formulas for industrial applications (polyimide chemicals, photo-resist compounds), - In the manufacture of another chemical substance (used as intermediate e.g pharmaceutical intermediates), - Uses as a solvent in industrial processes. http://www.inchem.org/documents/sids/sids/127-19-5.pdf
N,N-dimethylformamide	68-12-02	Toxic for reproduction (Article 57 c). The primary use of dimethylformamide is as a solvent with low evaporation rate . DMF is used in the production of acrylic fibers and plastics . It is also used as a solvent in peptide coupling for pharmaceuticals, in the development and production of pesticides, and in the manufacture of adhesives , synthetic leathers, fibers, films, and surface coatings . It is also used as a solvent in condensators . https://www.epa.gov/sites/production/files/2016-09/documents/n-n-dimethylformamide.pdf
Nitrobenzene	98-95-3	One of the major uses for nitrobenzene is for the production of aniline, which is a chemical intermediate used during the manufacture of polyurethane. Nitrobenzene is also used industrially in the manufacture of some pharmaceuticals, dyes and rubbers , as a constituent in some polishes and paint solvents and as a solvent in the refining of petroleum. Exposure of the general public to nitrobenzene is extremely unlikely as it is not commonly used in the home in substantial quantities. The most common source of exposure to considerable amounts of nitrobenzene is in the workplace, either where it is produced, or during the production of other materials. Therefore Nitrobenzene should not be expected above 0.1% w/w in EEE articles. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/338241/hpa_nitrobenzene_general_information_v1.pdf
N-methylacetamide	79-16-3	Toxic for reproduction (Article 57 c). Chemical intermediate for the production of pesticide. https://toxnet.nlm.nih.gov/cgi-bin/sis/search/a?dbs+hsdb:@term+@DOCNO+94
N-pentyl-isopentylphthalate	776297-69-9	Toxic for reproduction (Article 57 c). Can be used as plasticizers in plastic material. https://www.echa.europa.eu/documents/10162/48f63323-2ed7-453b-b1ca-c42987d0453f
o-aminoazotoluene	97-56-3	Carcinogenic (Article 57a). In the manufacture of pigments and for coloring oils, fats, and waxes, such as shoe and other wax polishes. It is also used as a chemical intermediate for the production of the dyes. https://oehha.ca.gov/chemicals/o-aminoazotoluene
Octamethylcyclotetrasiloxane, D4	556-67-2	PBT and vPvB (articles 57 d and 57 e). Is used in electronic articles, in nonmetal surface treatment and the manufacture of silicone polymers and copolymers. Is also used in personal care products, such as hair and skin care products and antiperspirants and reported for use as a defoamer, in antifatulence drugs, as a formulation component of personal care products for hair and skin care, antiperspirants and deodorants, biomedical uses, lubricants, polishes and coatings on a range of substrates including textile, carpeting and paper, sealants, mechanical heat transfer and dielectric fluids and reprography. Silicone polymers that contain D4 are also used in the production of elastomers that are used in biomedical applications, sealants and adhesives, moulded silicone rubber, film and fabric coating and encapsulation. https://www.canada.ca/en/environment-climate-change/services/canadian-environmental-protection-act-registry/publications/consultation-document-octamethylcyclotetrasiloxane/chapter-3.html https://echa.europa.eu/documents/10162/29085596/2020_0305_annexXIV_recommendation_consultation.pdf/27400793-f191-261a-6e35-e03cabb39b41
Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol (OAPP)	-	In adhesives, cardboard and paper, ceramics, coatings, electronics, inks, glass, paints, plastics, and rubbers. https://echa.europa.eu/documents/10162/a6151e9d-2dc6-5472-8449-9d4e096112fb

Orange lead (lead tetroxide)	1314-41-6	Is a RoHS substance . Toxic for reproduction (Article 57 c). Consumer use of sealed batteries . Professional use of batteries . Professional use of ceramics (including technical ceramics). Consumer use of rubber protection . Machinery, mechanical appliances, electrical / electronic articles (computer monitors and other devices containing cathode ray tubes) http://echa.europa.eu/documents/10162/ebdb64d6-1d03-45d6-b6e1-af5eb4befaa9
Orthoboric acid, sodium salt	13840-56-7	Possible use as a solvent and a corrosion inhibitor. https://echa.europa.eu/documents/10162/d603744a-2792-4092-7fa0-0c34319a516a
o-Toluidine	95-53-4	Carcinogenic (Article 57a). In herbicides, rubber chemicals , dye and pigment intermediates , resin hardeners , fungicide intermediates, pharmaceutical intermediates, and others. However, should not be expected above 0.1% w/w in supplied articles. http://www.inchem.org/documents/sids/sids/95534.pdf
Pentacosfluorotridecanoic acid	72629-94-8	vPvB (Article 57 e). Used as polymerization aids in the production of fluoropolymers (e.g Teflon) and fluoroelastomers. and polyvinylidene fluoride, which are used in paints, inks and coating in various sectors, including the automotive, electronics , construction and aerospace industries. However, it should be present above 0.1% w/w in EEE articles. http://www.ec.gc.ca/ese-ees/default.asp?lang=En&n=451C95ED-1
Pentadecafluorooctanoic acid (PFOA)	335-67-1	PFOA (Teflon) is a SVHC and restricted under the REACH annex XVII, and a POP substance . Insulators, solder sleeves, use in various mechanical components (e.g. semiconductors, wiring, tubing, piping, seals, gaskets, cables, working fluids in mechanical vacuum pumps). Raw material for components such as low-friction bearings & seals, lubricants. Active ingredient in ant baits, enhancers in pesticide formulations. Cable & wiring coating for weathering, flame and soil resistance. Additives in paints and coatings. Film to cover solar collectors due to weatherability. Raw materials for fire-fighting equipment, including protective clothing; fuel repellents for fluoroprotein (FP) foam stabilizers. Wetting agent or surfactant in floor polishes and cleaning agents. Surgical patches cardiovascular grafts, raw material for implants in the human body; stain and water-repellents for surgical drapes and gowns. Photographic and imaging industry. Paper and packaging oil and grease repellent. Skiing wax. Possible exemption for semiconductors. Low risk at 1000 ppm (usually 1ppm) https://echa.europa.eu/documents/10162/e9cdd6e6-3164-473d-b590-8fcf9caa50e7
Pentalead tetraoxide sulphate	12065-90-6	Is a RoHS substance . Toxic for reproduction (Article 57 c). Professional use of plastics (PVC) , used in lead batteries . http://echa.europa.eu/documents/10162/412cfcdb-1ce3-4663-9105-69efbceac538
Pentazinc chromate octahydroxide	49663-84-5	Carcinogenic (article 57 a). the substance is used in the aerospace sector as an anti-corrosion agent for the formulation of primers and jointing compounds (sealants). It is also used in anti-corrosion primers, in fillers and sealants for the construction and maintenance of vehicles. https://www.qsartoolbox.org/documents/10162/321d264e-065-427e-b0c2-613196891ac2
Perfluorinated chemical PFDA (nonadecafluorodecanoic acid) and its sodium and ammonium salts	335-76-2, 3108-42-7, 3830-45-3	PFDA has been used as plasticiser, lubricant, surfactant, wetting agent and corrosion inhibitor. https://echa.europa.eu/documents/10162/071fd04d-0cfa-60f9-23c9-e265ae9884a3
Perfluorobutane sulfonic acid (PFBS) and its salts	-	Used as surfactants and repellents (for leather, textile, carpets etc.). Additional applications include: flame retardants in polycarbonate. Used mainly in electrical and electronic equipment, metal plating and pesticides. https://www.miljodirektoratet.no/globalassets/publikasjoner/M759/M759.pdf
Perfluoroheptanoic acid (PFHpA) and its salts	-	Stain or water repellent. Wetting, dispersing, emulsifying, and foaming agents. https://echa.europa.eu/documents/10162/dcf31cf-9530-1aa8-eb4f-0006842cb606 https://pubchem.ncbi.nlm.nih.gov/compound/Perfluoroheptanoic-acid#section=Use-and-Manufacturing
Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	355-46-4	May be used as a plasticiser, lubricant, surfactant, wetting agent, corrosion inhibitor and in fire-fighting foams. Is found as an impurity or a replacement of PFOS (Perfluorooctanesulfonic acid) and used in electronic parts (semiconductors), metal plating , medical equipment, textile, fire fighting foam, paint. https://echa.europa.eu/documents/10162/40a82ea7-dcd2-5e6f-9bff-6504c7a226c5
Perfluorononan-1-oic acid (PNFA) and its sodium and ammonium salts (group entry)	375-95-1, 21049-39-8, 4149-60-4	Processing aid for fluoropolymer (e.g. teflon) manufacture/lubricating oil additive/surfactant for fire extinguishers/cleaning agent/textile antifouling finishing agent/polishing surfactant/waterproofing agents and in liquid crystal display (LCD) panels . https://echa.europa.eu/documents/10162/53f4c0a1-3c36-480a-9114-4d239a8e1f98

Phenanthrene	85-01-08	vPvB. Is a polycyclic aromatic hydrocarbon (PAH) substance that derived from coal or petroleum products and may be found in dyes, pesticides, explosives and drugs and in traces in plastics, in coatings, paints, road & construction applications as well as lubricants and cleaning agents. https://archive.epa.gov/epawaste/hazard/wastemin/web/pdf/phenanth.pdf
Phenol, alkylation products (mainly in para position) with C12-rich branched or linear alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof (PDDP)	-	In the preparation of lubricant additives and fuel cleaners (in petrol- and diesel-powered engines). Chemical intermediate, transformed during the synthesis of chemicals (oil production), rubbers (tires), resins, paints, inks, and polymers plastic products. Source: https://echa.europa.eu/documents/10162/12b8138f-c562-8cd6-3da9-9492468d0ea8
Phenolphthalein	77-09-8	Carcinogenic (article 57 a). Ph indicator, laxative. https://faculty.missouri.edu/~glaserr/3700s11/SW11A06_Bronze1.pdf
Pitch, coal tar, high temp.	65996-93-2	Carcinogenic, PBT and vPvB (articles 57a, 57d and 57e). Binding agent in the production of carbon electrodes, anodes and Söderberg electrodes for instance for the aluminium industry (electric arc furnaces). It is also used as a binding agent for refractories, clay pigeons, active carbon, coal briquetting, road construction and roofing. https://echa.europa.eu/documents/10162/13630/trd_rar_en_netherlands_pitch_en.pdf
Potassium chromate	7789-00-6	Carcinogenic and mutagenic (articles 57 a and 57 b). Metal surface treatment in electroplating (chrome plating) and conversion coatings (passivating and anodizing), passivation process aluminium). However, no detection of the surface of the treated parts. https://www.qsartoolbox.org/documents/10162/02c71a8d-8fc9-4eda-8551-d82e8bf5725d
Potassium dichromate	7778-50-9	Is a RoHS Cr6+ compound. Carcinogenic, mutagenic and toxic for reproduction (articles 57 a, 57 b and 57 c). Pigment manufacture, manufacture of wood preservation products, dye manufacture, catalyst manufacture, chromium metal manufacture and colouring agent in ceramics. https://echa.europa.eu/documents/10162/f5f958a9-8ec8-45ba-b30a-0d7a143b6a12
Potassium hydroxyoctaoxidizincatedichromate	11103-86-9	Carcinogenic (article 57 a). Anti-corrosion agent for the formulation of primers and it is further used in jointing compounds (sealants), fleet and commercial vehicles, heavy duty vehicles and trucks, military vehicles and agricultural equipment (excluding personal vehicles). https://echa.europa.eu/documents/10162/13640/svhc_xvrep_france_cm_r_potassium_hydroxyoctaoxidizincatedichromate_20110829_en.pdf
Pyrene	129-00-0, 1718-52-1	PBT, vPvB. Is a polycyclic aromatic hydrocarbon (PAH) substance that is derived from coal or petroleum products and may be found in traces in rubber and plastics as well as coatings, paints, road & construction applications, lubricants as well as cleaning agents. https://echa.europa.eu/documents/10162/47121daf-04a7-6d4a-b0b6-595794d3e66c
Pyrochlore, antimony lead yellow	8012-00-8	Is a RoHS Cr6+ compound. Toxic for reproduction (Article 57 c). Main use of the substance is industrial use in inks and ceramics decorating. Is used in articles (colouring agent and pigment in ceramic and glass articles). However, it appears that the release of the substance from these articles might be negligible. https://www.qsartoolbox.org/documents/10162/366617d1-7f71-4159-95cc-c9f00181d7e3 http://echa.europa.eu/documents/10162/a2f9bf5c-7e4b-4a2b-bdbe-a7f35cdcd57
Reaction mass of 2,2,3,3,5,5,6,6-octafluoro-4-(1,1,1,2,3,3,3-heptafluoropropan-2-yl)morpholine and 2,2,3,3,5,5,6,6-octafluoro-4-(heptafluoropropyl)morpholine	-	Formulation into mixtures. Industrial and professional use in closed systems. E.g., it is used as a laboratory reagent and as a functional fluid at an industrial site and indoors. https://echa.europa.eu/documents/10162/a24b86f4-dcd3-1da1-e921-4de4804c3934
Reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate and 2-ethylhexyl 10-ethyl-4-[[2-[[2-ethylhexyl]oxy]-2-oxoethyl]thio]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (reaction mass of DOTE and MOTE)	-	The reaction mass DOTE:MOTE is used in the production of PVC as heat stabiliser as PVC is thermally unstable. DOTE:MOTE reaction mass is present in various different consumer products (packaging , credit card, plastic pipes, windows, bags , bottles, toys, electric articles , textiles...) applied for the production of rigid PVC films and sheets . Toxic for reproduction (Article 57 c). https://echa.europa.eu/documents/10162/21732369/anne_x_xv_svhc_dote_mote_reaction_mass_en.pdf
Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP) with ≥0.1% w/w 4-heptylphenol, branched and linear (4-HPbl)	-	Endocrine disrupting properties (Article 57(f) - environment). Used as additive in lubricants and greases.
S-(tricyclo[5.2.1.0'2,6]deca-3-en-8(or 9)-yl) O-(isopropyl or isobutyl or 2-ethylhexyl) O-(isopropyl or isobutyl or 2-ethylhexyl) phosphorodithioate	255881-94-8	In lubricant additives, lubricants, and greases for vehicles or machinery purposes. https://echa.europa.eu/documents/10162/bf7aa0a7-a96a-dade-e4e0-332f607c119a

Silicic acid (H ₂ SiO ₅), barium salt (1:1), lead-doped [with lead (Pb) content above the applicable generic concentration limit for toxicity for reproduction Repr. 1A (CLP) or category 1 (DSD); the substance is a member of the group entry of lead compounds, with index number 082-001-00-6 in Regulation (EC) No 1272/2008]	68784-75-8	Toxic for reproduction (Article 57 c). Used for coating glass lamp bulbs. http://echa.europa.eu/documents/10162/f96c1234-b6d7-4266-bc4f-b457f136dad9
Silicic acid, lead salt	11120-22-2	Is a RoHS substance. Toxic for reproduction (Article 57 c). Stone, plaster, cement, glass and ceramic articles. However, it is not detectable as a substance in concentrations > 0.1% w/w in articles for use in hardware and EEE. http://echa.europa.eu/documents/10162/810c9e90-7cbb-4fd8-9a0e-e0df37b328fb
Sodium chromate	7775-11-3	Is a RoHS Cr6+ compound. Carcinogenic, mutagenic and toxic for reproduction (articles 57 a, 57 b and 57 c). Manufacture of other chromium compounds. However, the metal finishing processes are followed by several rinsing processes to remove excess process solution from the surface of the treated article. https://echa.europa.eu/documents/10162/f5f958a9-8ec8-45ba-b30a-0d7a143b6a12
Sodium dichromate	7789-12-0, 10588-01-9	Is a RoHS Cr6+ compound. Carcinogenic, mutagenic and toxic for reproduction (articles 57a, 57b and 57c) manufacture of other chromium compounds , manufacture of wood preservation products, vitamin K manufacture, mordant in dyeing , wax manufacture and metal finishing . https://echa.europa.eu/documents/10162/f5f958a9-8ec8-45ba-b30a-0d7a143b6a12
Sodium perborate; perboric acid, sodium salt	-	Toxic for reproduction (Article 57 c). Is not normally found in concentrations > 0.1% w/w in articles (e.g. parts, components, sub-assemblies etc) which are supplied for use in hardware products and electrical and electronic equipment. Only used in chemical preparations such as bleaching agents, cleaning agents and cosmetic products. No use of PBSs in articles has been identified. https://www.echa.europa.eu/documents/10162/21636556/annex_xv_svhc_ec_239-172-9_234-390-0_sodium_perborate_en.pdf
Sodium peroxometaborate	7632-04-4	Toxic for reproduction (Article 57 c). Is not normally found in concentrations > 0.1% w/w in articles (e.g. parts, components, sub-assemblies etc) which are supplied for use in hardware products and electrical and electronic equipment. http://www.csst.qc.ca/prevention/reptox/Pages/fiche-complete.aspx?no_produit=261768
Strontium chromate	7789-06-2	Carcinogenic (article 57a). coil coated galvanised steel (for the protection of steel and zinc) is mainly used in buildings (for wall cladding or roofing). Strontium chromate is also used in much smaller quantities in primers, sealants, jointing compounds and top coat paints for aerospace applications but also in anti-corrosion primers, in fillers and sealants for the construction and maintenance of vehicles (such as heavy duty vehicles and trucks, military vehicles and agricultural equipment (excluding personal vehicles)). http://op.bna.com.s3.amazonaws.com/env.nsf/r%3FOpen%3Dprio-9n8mqw
Sulfurous acid, lead salt, dibasic	62229-08-7	Is a RoHS substance. Toxic for reproduction (Article 57 c). Professional use of plastics. PVC Processing. https://echa.europa.eu/documents/10162/4f7c2595-d36c-43a7-9791-c7be5feaae9d
Terphenyl, hydrogenated	61788-32-7	vPvB (Article 57e). Can be found in metal, wooden and plastic construction and building materials, in flooring, furniture, toys, construction materials, curtains, foot-wear, leather products, paper and cardboard products, electronic equipment and in food packaging and storage, toys, mobile phones, coating products, adhesives and sealants, fillers, putties, plasters, modelling clay, polymers and laboratory chemicals. Heat transfer fluids, adhesives, sealants, coating, paints https://echa.europa.eu/substance-information/-/substanceinfo/100.057.225 ; https://echa.europa.eu/documents/10162/29085596/2020_0305_annexXIV_recommendation_consultation.pdf/27400793-f191-261a-6e35-e03cabb39b41
Tetraboron disodium heptaoxide, hydrate	12267-73-1	Toxic for reproduction (article 57 c). Used in nuclear power plants, and more specifically in boiling water reactors together with boric acid. The function of tetraboron disodium heptaoxide, hydrate is as a preservative agent for the respective closed cooling systems. Used in cleaning solutions and alkaline degreasing baths . https://echa.europa.eu/documents/10162/46eaa3d4-8e85-455a-a17c-13881df5aa0b
Tetraethyllead (TEL)	78-00-2	Is a RoHS substance. Toxic for reproduction (Article 57 c). Used as anti-knock additive in gasoline. http://nj.gov/health/eoh/rtkweb/documents/fs/1817.pdf

Tetralead trioxide sulphate	12202-17-4	Is a RoHS substance . Toxic for reproduction (Article 57 c). The main uses of tetralead trioxide sulphate appear to be the use in lead battery production and the use in stabilisers production and PVC processing . The uses in the production of coatings and inks, the application of coatings and inks for mirror backing and the use as an industrial reactant appear to be less significant in terms of tonnages. https://echa.europa.eu/documents/10162/829de684-0a88-498a-95be-9c1cc68a88c4
Trichloroethylene	79-01-6	Carcinogenic (article 57 a). Major use of trichloroethylene is for vapour degreasing and cleaning of metal parts . It is also used in adhesives , for synthesis in the chemical industry and as a solvent for various products, including insecticides and waxes. It is (or has been) used in the leather and textile processing industries and in the paint , lacquers and varnishes industry. Trichloroethylene evaporates at a relatively fast rate at room temperature (no detections in hardware products). https://echa.europa.eu/documents/10162/83f0c99f-f687-4cdf-a64b-514f1e26fdd0
Tricosfluorododecanoic acid	307-55-1	vPvB (Article 57 e). Used in production of fluoropolymers (e.g teflon) and fluorotelomers and as additive. Should not be present above 0.1% w/w of EEE articles. https://www.echa.europa.eu/documents/10162/84bc1dc7-3898-449f-ba44-c20a56ea5452
Triethyl arsenate	15606-95-8	Carcinogenic (article 57a). Doping applications in fabricating semiconductor devices . Arsenic is an n-type dopant (donor) in silicon. However, The triethyl arsenate is fully reacted during the manufacturing process. https://echa.europa.eu/documents/10162/13640/triethyl_a_rsenate_en.pdf
Trilead bis(carbonate)dihydroxide	1319-46-6	Is a RoHS substance . Toxic for reproduction (Article 57 c). Preparation of Positive Temperature Coefficient (PCT) Ceramic Materials . http://echa.europa.eu/documents/10162/cf4ed905-0f2f-47e5-978a-7a9bfb06595a
Trilead diarsenate	3687-31-8	Is a RoHS substance . Carcinogenic and toxic for reproduction (articles 57 a and 57 c). Found as an arsenic impurity in the manufacture of metal for the opto-electronics industry, industrial application of special glass/ crystal . Is not found in concentrations > 0.1% w/w in hardware articles. https://echa.europa.eu/documents/10162/13640/svhc_axvr_ep_norway_cmr_trilead_diarsenate_20110829_en.pdf
Trilead dioxide phosphonate	12141-20-7	Is a RoHS substance . Toxic for reproduction (Article 57 c). Professional use of plastics . http://echa.europa.eu/documents/10162/28cdb2be-743a-4b06-baba-488114152c8b
Tris(2-chloroethyl)phosphate (TCEP)	115-96-8	Toxic for reproduction (article 57c). Plasticizer and viscosity regulator with flame-retarding properties for the production of unsaturated polyester resins . Flame retardant in polyurethane . https://echa.europa.eu/documents/10162/f42be21b-33a3-4063-ad4d-2b0f937e41b4
Tris(2-methoxyethoxy)vinylsilane	1067-53-4	In sealants, for non-metal surface treatment, in the manufacture of rubber and plastic (silicone resins). https://echa.europa.eu/documents/10162/06115c7c-7ea6-2368-4978-bb2fe4bba0b6
Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with ≥ 0.1% w/w of 4-nonylphenol, branched and linear (4-NP)	-	Used as antioxidant in polymers, electronics, paintings, adhesives, toys, papers, cardboards and other applications. https://echa.europa.eu/documents/10162/40198e13-d1da-0488-0b89-d350e8a6a75e
Trixylyl phosphate (TXP)	25155-23-1	Functional fluid (fire resistant fluids, hydraulic fluids, lubricants , lubricant additives, grease products, metal working fluids). Flame retardant and/or plasticiser in plastic production. might be used in articles made of polyvinyl chloride (PVC), e.g. wire/cable . use in polyurethane , thermoplastic elastomers , coatings , textiles, cellulose resin and natural and synthetic rubber as well as for PVC flooring materials are mentioned. https://echa.europa.eu/documents/10162/953524f2-7965-430c-be61-0bb02f08f83c
Zirconia Aluminosilicate Refractory Ceramic Fibres are fibres covered by index number 650-017-00-8 in Annex VI, part 3, table 3.1 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, and fulfil the three following conditions: a) oxides of aluminium, silicon and zirconium are the main components present (in the fibres) within variable concentration ranges b) fibres have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometres (µm). c) alkaline oxide and alkali earth oxide (Na ₂ O+K ₂ O+CaO+MgO+BaO) content less or equal to 18% by weight	-	Carcinogenic (article 57 a). RCF is a high-temperature insulating fibre sold chiefly for industrial applications as insulation for industrial furnaces, pipes, ducts, and cables, as fire protection for buildings and industrial process equipment, as aircraft/aerospace heat shields, and in automotive uses, such as catalytic converters, metal reinforcements, heat shields , brake pads, and air bags. RCF is produced in the United States, Mexico, Canada, Brazil, Venezuela, South Africa, Australia, Japan, China, Korea, Malaysia, and Taiwan and several countries in Europe. https://echa.europa.eu/documents/10162/47c8a92c-8fb4-4b0f-85b8-64037ad542ad
α,α-Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	6786-83-0	Carcinogenic (Article 57a). Used in inks and dyes (typewriter ribbons, computer cartridge, etc., ball point pen inks, and stamping inks), fuel cosmetic products https://echa.europa.eu/documents/10162/13638/svhc_axvr_ep_c_i_solvent_blue_4_pub_en.pdf

Restriction list (Annex XVII)

Name	CAS no. (not exhaustive)	Entry no.	Conditions (Simplified, please see ECHA website for details)
Polychlorinated terphenyls (PCTs)	-	01	Restricted as a substance and in a mixture including waste oils, or in equipment <50 mg/kg (0,005 % by weight).
Chloroethene, Chloroethylene (Vinyl chloride)	75-01-04	02	Shall not be used as propellant in aerosols for any use. Aerosols dispensers containing the substance as propellant shall not be placed on the market.
Liquid substances or mixtures which are regarded as dangerous in accordance with - Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008 (See group members): Hazard class 4.1, Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10, Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F, Hazard class 5.1.		03	Banned in ornamental articles, tricks and jokes or articles for gaming purpose; Banned in decorative oil lamps for supply to the general public; Additional labelling requirements for lamp oils, grill lighter fluids, grill lighters, etc.
Tris (2,3 dibromopropyl) phosphate	126-72-7	04	Banned in any textile article intended to come into contact with the skin
Benzene	71-43-2	05	Toy or toy parts: <=5 mg/kg (0, 0005 %w/w) in toy or part of toy. Shall not be placed on the market, or used, as substance or in mixtures in concentrations greater than 0,1 % w/w (example, detergent). Exception: motor oil, industrial use.
Asbestos fibres	12001-28-4, 12001-29-5, 132207-32-0, 12172-73-5, 77536-66-4, 77536-67-5, 77536-68-6	06	Banned as a substance, in mixture or article (exemptions apply)
Tris(aziridinyl)phosphin oxide	545-55-1	07	Banned in textile articles, such as garments, undergarments and linen, intended to come into contact with the skin.
Polybromobiphenyls, Polybrominatedbiphenyls (PBB)	59536-65-1 and others	08	Banned in textile articles, such as garments, undergarments and linen, intended to come into contact with the skin.
Benzidine and / or its derivatives, Powder of the roots of Helleborus viridis and Helleborus niger, Wood powder, Powder of the roots of Veratrum album and Veratrum nigrum, o-Nitrobenzaldehyde, Soap bark powder (Quillaja saponaria) and its derivatives containing saponines	552-89-6, 68990-67-0, and others	09	Banned in jokes and hoaxes or in mixtures or articles intended to be used as such, for instance as a constituent of sneezing powder and stink bombs. Exemption for stink bombs containing not more than 1,5 ml of liquid.
Ammonium hydrogen sulphide, Ammonium sulphide, Ammonium polysulphide	12124-99-1, 12135-76-1, 9080-17-5	10	Banned in jokes and hoaxes or in mixtures or articles intended to be used as such, for instance as a constituent of sneezing powder and stink bombs. Exemption for stink bombs containing not more than 1,5 ml of liquid.
Volatile esters of bromoacetic acids (Ethyl bromoacetate, Butyl bromoacetate, Propyl bromoacetate, Methyl bromoacetate)	105-36-2, 18991-98-5, 35223-80-4, 96-32-2	11	Banned in jokes and hoaxes or in mixtures or articles intended to be used as such, for instance as a constituent of sneezing powder and stink bombs. Exemption for stink bombs containing not more than 1,5 ml of liquid.

2-naphthylamine and its salts (Salts of 2-naphthylamine, 2-naphthylammonium acetate, 2-naphthylammonium chloride, 2-naphthylamine)	553-00-4, 612-52-2, 91-59-8, and others	12	Restricted as substances or in mixtures in concentrations greater than 0,1 % by weight.
Benzidine and its salts, Salts of benzidine, Benzidine	119-90-4, 119-93-7, 13164-93-7, 14414-68-7, 16071-86-6, 1937-37-7, 2429-73-4, 2429-79-0, 2429-81-4, 2429-82-5, 2429-83-6, 2429-84-7, 2602-46-2, 27336-24-9, 2893-80-3, 29806-76-6, 3476-90-2, 3530-19-6, 3567-65-5, 3626-28-6, 36341-27-2, 3811-71-0, 38668-12-1, 41195-21-5, 41766-73-8, 4335-09-5, 52754-64-0, 531-85-1, 531-86-2, 5422-17-3, 573-58-0, 612-82-8, 612-83-9, 6360-54-9, 6426-67-1, 66836-18-8, 66907-22-0, 67632-50-2, 70146-07-5, 72-57-1, 74220-10-3, 75534-79-1, 75752-15-7, 78577-03-4, 78577-08-9, 8004-59-9, 8014-91-3, 91-94-1, 92415-34-4, 92415-52-6, 92-87-5, and others	13	Restricted as substances or in mixtures in concentrations greater than 0,1 % by weight.
4-Nitrobiphenyl	92-93-3	14	Restricted as substances or in mixtures in concentrations greater than 0,1 % by weight.
4-Aminobiphenyl xenylamine and its salts, 4-Aminobiphenyl xenylamine	92-67-1 and others	15	Restricted as substances or in mixtures in concentrations greater than 0,1 % by weight.
Lead carbonates (Trilead-bis(carbonate)-dihydroxide anhydrous carbonate (PbCO ₃))	2PbCO ₃ -Pb(OH) ₂ , Neutral 1319-46-6, 598-63-0	16	Banned in paints. Possible exemption for the restoration and maintenance of works of art and historic buildings and their interiors.
Lead sulphates (Sulphuric acid, lead salt PbSO ₄ , Lead sulphate PbSO ₄)	15739-80-7, 7446-14-2	17	Banned in paints. Possible exemption for the restoration and maintenance of works of art and historic buildings and their interiors.
Mercury compounds	-	18	Banned as substances or in mixtures where the substance or mixture is intended for use to prevent the fouling by micro-organisms, plants or animals (e.g. hulls of boats, cages, floats, nets, submerged applicanes or equipment), in the preservation of wood, in the impregnation of heavy-duty industrial textiles and yarn intended for their manufacture, in the treatment of industrial waters.
Mercury	7439-97-6	18a	Banned in fever thermometers and other measuring (e.g. barometers, hygrometers, manometers, sphygmomanometers, tensiometers, etc). Exemptions apply.

<p>Arsenic compounds (Strychnidin-10-one, arsenite (1:1), Lead arsenite, Sodium arsenate dibasic heptahydrate, Slimes and Sludges, copper electrolytic refining, decopperized, arsenic-rich, Iron arsenate, Iron bis(arsenate), Arsenic acid, magnesium salt, Arsenic acid, copper salt, Arsenic acid, calcium salt, Arsenic acid (H3AsO4), magnesium salt, manganese-doped, Slimes and Sludges, copper-lead ore roasting off gas scrubbing, arsenic-contg., Strychnine arsenate, Tricopper arsenide, Dysprosium arsenide, Sodium hexafluoroarsenate(V), Diiron arsenide, Gadolinium arsenide, Holmium arsenide, Lutetium arsenide, Manganese arsenide, Terbium arsenide, Thallium arsenide, Thulium arsenide, Ytterbium arsenide, Iron diarsenide, Trizinc diarsenide, Iron arsenide, Digallium arsenide phosphide, Tripotassium arsenide, Trilithium arsenide, Trisodium arsenide, Praseodymium arsenide, Trimagnesium diarsenide, Diarsenic tritelluride, Zinc diarsenide, Nickel diarsenide, Roxarsone, Dichromium arsenide, Erbium arsenide, Lanthanum arsenide, Niobium arsenide, Neodymium arsenide, Triantimony arsenide, Samarium arsenide, Yttrium arsenide, Tribarium diarsenide, Tricalcium diarsenide, Germanium arsenide, Trisilver arsenide, Sodium dimethylarsinate, Arsenic sulfide, Gallium arsenide, Indium arsenide, Diarsenic pentaoxide, Arsenic sulfide, Diarsenic triselenide, Diarsenic trioxide, Ammonium dihydrogenarsenate, Potassium arsenite, Trisodium arsenite, Trisodium arsenate, Zinc arsenate, Tristrontium diarsenate, Tribarium diarsenate, Trinickel bis(arsenate), Trilithium arsenate, Trisilver arsenate, 6,6'-dihydroxy-3,3'-diarsene-1,2-diyldianilinium dichloride, Sodium metaarsenate, Copper diarsenite, Potassium hexafluoroarsenate, Hydrogen hexafluoroarsenate, N-(p-arsenosophenyl)-1,3,5-triazine-2,4,6-triamine, Aluminium arsenide, Triammonium arsenate, Tricobalt diarsenate, Cobalt arsenide, Nickel arsenide, Tricalcium diarsenite, 3-methyl-4-(pyrrolidin-1-yl)benzenediazonium hexafluoroarsenate, Antimony arsenate, Arsenic acid, copper(2+) salt, Lithium hexafluoroarsenate, Oxophenarsine, Triethyl arsenite, Ammonium copper arsenate, Europium arsenide, Trilead diarsenate, Disodium 4-[(o-arsonophenyl)azo]-3-hydroxynaphthalene-2,7-disulphonate, Tristrontium diarsenide, Tritylium hexafluoroarsenate, Diphenyldiarsenic acid, Neoarsphenamine, Oxophenarsine hydrochloride, Tris[(8α,9R)-6'-methoxycinchonan-9-ol] bis(arsenate), Triphenylsulphonium hexafluoroarsenate(1-), Zirconium arsenide, Trimanganese arsenide, Sodium cacodylate trihydrate, Sulfarsphenamine, Disodium 3,6-bis[(o-arsonophenyl)azo]-4,5-</p>	<p>100258-44-4, 10031-13-7, 10048-95-0, 100822-74-0, 100995-19-81-1, 10102-48-4, 10102-49-5, 10102-50-8, 10102-53-1, 10103-50-1, 10103-60-3, 10103-61-4, 10103-62-5, 10124-50-2, 102110-21-4, 102110-62-3, 102525-64-4, 10290-12-7, 10326-24-6, 10476-82-1, 10476-87-6, 106097-61-4, 107-34-6, 109882-46-4, 1122-90-3, 1153-05-5, 116-49-4, 117746-50-6, 119-96-0, 12002-03-8, 12005-69-5, 12005-70-8, 12005-75-3, 12005-81-1, 12005-82-2, 12005-86-6, 12005-88-8, 12005-89-9, 12005-92-4, 12005-94-6, 12005-95-7, 12006-08-5, 12006-09-6, 12006-10-9, 12006-12-1, 12006-21-2, 12006-40-5, 12044-16-5, 12044-20-1, 12044-21-2, 12044-22-3, 12044-25-6, 12044-28-9, 12044-49-4, 12044-54-1, 12044-55-2, 12068-61-0, 121-19-7, 12254-85-2, 12254-88-5, 12255-04-8, 12255-08-2, 12255-09-3, 12255-36-6, 12255-39-9, 12255-48-0, 12255-50-4, 12255-53-7, 12271-72-6, 12417-99-1, 124-65-2, 12612-21-4, 1303-00-0, 1303-11-3, 1303-28-2, 1303-33-9, 1303-36-2, 1327-53-3, 13462-93-6, 13464-35-2, 13464-37-4, 13464-38-5, 13464-44-3, 13464-68-1, 13477-04-8, 13477-70-8, 13478-14-3, 13510-44-6, 139-93-5, 140-45-4, 144-21-8, 144-87-6, 14644-70-3, 14674-83-0, 14849-23-1, 14973-92-3, 1499-33-8, 15120-17-9, 15122-58-4, 15194-98-6, 15195-00-3, 15195-06-9, 15606-95-8, 164170-84-7, 16509-22-1, 1668-00-4, 16973-45-8, 17029-22-0, 17068-85-8, 17068-86-9, 17522-78-0, 1758-48-1, 1772-02-7, 2045-00-3, 21006-73-5, 21093-83-4, 21480-65-9, 2163-77-1, 2163-80-6, 21840-08-4, 21892-63-7, 22441-45-8, 22831-42-1, 23525-22-6, 23582-05-0, 23582-06-1, 24343-41-7, 24719-13-9, 24719-19-5, 27016-73-5, 27016-75-7, 27152-57-4, 27562-22-1, 28222-17-4, 28271-12-4, 28225-25-4,</p>	<p>Banned as substances or in mixtures where the substance or mixture is intended for use to prevent the fouling by micro-organisms, plants or animals (e.g. hulls of boats, cages, floats, nets, submerged applicanes or equipent), in the preservation of wood. Possible exemptions.</p>
<p>Organostannic compounds (TBT,TPT,DBT, DOT etc.)</p>	<p>-</p>	<p>20</p> <p>Restricted as substances or in mixtures where the substance or mixture is acting as biocide in free association paint to prevent the fouling by micro-organisms, plants or animals. Threshold limits of Tri-substituted organostannic compounds: <0.1%w/w in all articles; Dibutyltin (DBT) compounds: <0.1%w/w in all mixtures and articles supplied to the public; DBT exception: materials and articles regulated under Regulation (EC) No 1935/2004. Dioctyltin (DOT) compound: <0.1%w/w in articles supplied to the public (for example, textile, nappies)</p>
<p>Di-μ-oxo-di-n-butylstanniohydroxyborane / Dibutyltin hydrogen borate C8H19BO3Sn (DBB)</p>	<p>75113-37-0</p>	<p>21</p> <p>Restricted as a substance, or in mixtures in a concentration equal to, or greater than 0,1 % by weight (possible exemption)</p>
<p>Pentachlorophenol and its salts and esters, Pentachlorophenol esters, Pentachlorophenol salts, Sodium pentachlorophenolate, N2-benzyl pentachlorophenyl N2-carboxy-L-(2-aminoglutaramate), Perchlorophenyl N-(benzyloxycarbonyl)-L-isoleucinate, Perchlorophenyl S-benzyl-N-(benzyloxycarbonyl)-L-cysteinat, Pentachlorophenyl N-[(4-methoxyphenyl)methoxy]carbonyl]-L-serinate, Perchlorophenyl 5-oxo-L-prolinate, Zinc bis(pentachlorophenolate), Pentachlorophenyl laurate, Potassium pentachlorophenolate, Pentachlorophenol</p>	<p>131-52-2, 13673-51-3, 13673-53-5, 13673-54-6, 23234-97-1, 228990-85-4, 2917-32-0, 3772-94-9, 7778-73-6, 87-86-5</p>	<p>22</p> <p>Restricted use: as a substance, or in mixtures in a concentration equal to, or greater than 0,1 % by weight</p>

<p>Cadmium and its compounds (Cadmium compounds, Cadmium nitrate, Cadmium chloride 10022-68-1, 10325-94-7, 100402-53-7, 100656-55-1, 101012-89-23 phosphate (Cd5Cl(PO4)3), manganese-doped, Flue dust, copper-lead blast furnace, 9, 101012-93-5, 101012-94-6, 10108-64-2, 10124-36-4, 31119-cadmium-indium-enriched, Dodecanoic acid, cadmium salt, basic, Octadecanoic acid, 53-6, 101356-99-4, 101357-00-0, 101357-01-1, 101357-02-2, cadmium salt, basic, Octadecanoic acid, 12-hydroxy-, cadmium salt, basic, Cadmium 101357-03-3, 101357-04-4, 10196-67-5, 102110-30-5, 102184-chloride, Cadmium sulphate, Cadmium oxide (CdO), solid soln. with calcium oxide and 95-2, 10326-28-0, 10468-30-1, 11112-63-3, 1191-79-3, 12014-14-titanium oxide (TiO2), praseodymium-doped, Cadmium selenide (CdSe), solid soln. with 1, 12014-28-7, 12014-29-8, 12139-23-0, 12185-64-7, 12187-14-cadmium sulfide, zinc selenide and zinc sulfide, aluminum and copper-doped, Cadmium 3, 12214-12-9, 12292-07-8, 12442-27-2, 12626-36-7, 12656-57-selenide (CdSe), solid soln. with cadmium sulfide, zinc selenide and zinc sulfide, copper 4, 1306-19-0, 1306-23-6, 1306-24-7, 1306-25-8, 13477-17-3, and manganese-doped, Cadmium selenide (CdSe), solid soln. with cadmium sulfide, zinc 13477-19-5, 13477-23-1, 13701-66-1, 13755-33-4, 13814-59-0, selenide and zinc sulfide, europium-doped, Cadmium selenide (CdSe), solid soln. with 13814-62-5, 13832-25-2, 13847-17-1, 13972-68-4, 14017-36-8, cadmium sulfide, zinc selenide and zinc sulfide, gold and manganese-doped, Cadmium 14067-62-0, 141-00-4, 14239-68-0, 14312-00-6, 14402-75-6, selenide (CdSe), solid soln. with cadmium sulfide, zinc selenide and zinc sulfide, 14486-19-2, 14566-86-0, 14689-45-3, 14874-24-9, 14923-81-0, manganese and silver-doped, Cadmium myristate, Cadmium oxide (CdO), solid soln. with 14949-59-8, 14949-60-1, 15337-60-7, 15682-87-8, 15708-29-9, magnesium oxide, tungsten oxide (WO3) and zinc oxide, Silicic acid, zirconium salt, 15743-19-8, 15851-44-2, 15852-14-9, 16039-55-7, 16056-72-7, cadmium pigment-encapsulated, Cadmium perchlorate hexahydrate, Cadmium dioleate, 16105-06-9, 16986-83-7, 17010-21-8, 18974-20-4, 18991-05-4, Cadmium selenide sulphide, Barium cadmium tetrastearate, Cadmium titanium trioxide, 19010-65-2, 19010-79-8, 21041-95-2, 2191-10-8, 2223-93-0, Tricadmium diphosphide, Antimony, compound with cadmium (2:3), Cadmium zirconium 2420-97-5, 2420-98-6, 24345-60-6, 2605-44-9, 26264-48-2, trioxide, Pentacadmium chloridetriphosphate, Dicalcium niobate, Dicalcium selenide 27476-27-3, 2847-16-7, 29977-13-7, 3026-22-0, 30304-32-6, sulphide, Cadmium ditantalum hexaoxide, Cadmium zinc sulphide, Cadmium selenide 31017-44-4, 31215-94-8, 34100-40-8, 34303-23-6, 35658-65-2, sulfide, Cadmium sulfoselenide orange, Cadmium oxide, Cadmium sulphide, Cadmium 36211-44-6, 38517-19-0, 4167-05-9, 4390-97-0, 4464-23-7, 4476-selenide, Cadmium telluride, Tricadmium bis(phosphate), Cadmium silicate, Cadmium 04-4, 49784-42-1, 50648-02-7, 506-82-1, 5112-16-3, 51222-60-sulphite, Diboron tricadmium hexaoxide, Dicalcium hexakis(cyano-C)ferrate(4-), 7, 513-78-0, 52337-78-7, 542-83-6, 543-90-8, 5743-04-4, 55700-Cadmium selenite, Cadmium selenate, Cadmium diricinoleate, Cadmium orthophosphate, 14-6, 56982-42-4, 5743-04-4, 58339-34-7, 61789-34-2, 61951-96-Cadmium molybdenum tetroxidem, Cadmium disulphamate, Cadmium hydrogen 0, 62149-56-8, 63400-09-9, 6427-86-7, 64681-08-9, 654054-66-phosphate, Cadmium succinate, Cadmium bis(diethyldithiocarbamate), Cadmium 7, 67906-19-8, 67939-62-2, 67989-93-9, 68092-45-5, 68131-58-chromate, Cadmium dipotassium tetracyanide, Cadmium tetrafluoroborate, 8, 68131-59-9, 68214-25-5, 68309-98-8, 68332-81-0, 68409-82-Bis(dibutyldithiocarbamate-S,S')cadmium, Bis(pentane-2,4-dionato-O,O')cadmium, 5, 68478-53-5, 68479-13-0, 68784-10-1, 68784-55-4, 68855-80-Tris(ethylenediamine)cadmium dihydroxide, Cadmium diicosanoate, Cadmium 1, 68876-84-6, 68876-98-2, 68876-99-3, 68877-00-9, 68877-01-bis(piperidine-1-carbodithioate), Bis(dimethyldithiocarbamate-S,S')cadmium, Lauric acid, 0, 68891-87-2, 68953-39-9, 68956-81-0, 68966-97-2, 69011-69-barium cadmium salt, Disodium tetrakis(cyano-C)cadmate(2-), Dipotassium [[N,N'- 4, 69012-21-1, 69012-57-3, 69029-63-6, 69029-70-5, 69029-77-ethylenebis[N-(carboxymethyl)glycinato]](4-)-N,N',O,O',ON,ON']cadmate(2-), Cadmium 2, 69029-90-9, 69029-91-0, 69121-20-6, 69190-99-4, 70084-75-</p>	<p>Restricted in mixtures, paints, coating, brazin fillers and articles (0.01 % w/w in PVC, PUR, LDPE, CA, CAB, epoxy resins, MF, UF, UP, PET, PBT, VPE, polystyrene PP etc.). Applicable exemptions.</p>
<p>Monomethyl-tetrachlorodiphenyl methane Trade name: Ugilec 141 76253-60-6</p>	<p>24 Banned as substances or in mixtures or articles. Applicable exemption.</p>
<p>Monomethyl-dichloro-diphenyl methane Trade name: Ugilec 121, Ugilec 21 -</p>	<p>25 Banned as substances or in mixtures or articles.</p>
<p>Monomethyl-dibromo-diphenyl methane bromobenzylbromotoluene, mixture of isomers 99688-47-8 Trade name: DBBT</p>	<p>26 Banned as substances or in mixtures or articles.</p>

<p>Nickel and its compounds - Nickel compounds - Nickel</p>	<p>11099-02-8, 11113-74-9, 11113-75-0, 11132-10-8, 113894-88-5, 27 113894-89-6, 12003-78-0, 12004-35-2, 12007-00-0, 12007-01-1, 12007-02-2, 12018-18-7, 12031-65-1, 12034-55-8, 12035-36-8, 12035-38-0, 12035-39-1, 12035-50-6, 12035-51-7, 12035-52-8, 2035-57-3, 12035-64-2, 12035-71-1, 12035-72-2, 12035-77-7, 12054-48-7, 12059-14-2, 12059-19-7, 12059-21-1, 12059-23-3, 12068-61-0, 12122-15-5, 12125-56-3, 12137-08-5, 12137-09-6, 12137-12-1, 12137-13-2, 12142-88-0, 12142-92-6, 12167-08-7, 12168-54-6, 12170-92-2, 12175-27-8, 12196-72-4, 12201-89-7, 12244-51-8, 12255-10-6, 12255-80-0, 12259-56-2, 12263-13-7, 12275-13-7, 12334-31-5, 12359-17-0, 124594-15-6, 12503-49-0, 12503-53-6, 12519-85-6, 125275-86-7, 125275-87-8, 125378-87- 2, 12607-70-4, 12619-90-8, 12645-50-0, 12653-76-8, 12673-58- 4, 12688-64-1, 1271-28-9, 12710-36-0, 12737-30-3, 12794-26-2, 12795-30-1, 1295-35-8, 13001-15-5, 13007-90-4, 1303-22-6, 1313-99-1, 13138-45-9, 1314-04-1, 1314-05-2, 1314-06-3, 131866-9-4, 13462-88-9, 13462-90-3, 13463-39-3, 134737-17-0, 13477-70-8, 13477-97-9, 13478-00-7, 13478-93-, 13520-61-1, 13637-71-3, 13654-40-5, 13689-92-4, 13770-89-3, 13775-54-7, 13778-29-5, 13842-46-1, 13859-60-4, 13859-65-9, 13869-33-5, 13877-20-8, 13927-77-0, 13931-83-4, 13940-83-5, 14038-85-8, 14055-02-8, 14100-15-3, 14167-20-5, 14168-76-4, 14177-51-6, 14177-55-0, 14216-75-2, 14220-17-8, 14221-00-2, 14264-16-5, 14267-17-5, 14323-41-2, 14332-32-2, 14332-34-4, 14396-43-1, 14406-66-7, 14406-71-4, 14428-08-1, 14448-18-1, 14448-69-2, 14507-36-9, 14516-71-3, 14522-99-7, 14550-87-9, 14647-23-5, 14708-14-6, 14721-18-7, 14751-76-9, 148732-74-5, 14874-78-3, 14949-69-0, 14998-37-9, 15060-62-5, 15099-34-0, 15133-82-1, 151436-99-6, 15242-92-9, 15244-37-8, 15274-43-8, 15317-78-9, 15521-65-0, 155773-71-0, 15586-38-6, 15629-92-2, 15684-36-3, 15699-18-0, 15708-55-1, 15751-00-5, 15780-33-3, 15843-02-4,</p>	<p>Restrictions in any post assemblies which are inserted into pierced ears and other pierced parts of the human body and in articles intended to come into direct and prolonged contact with the skin (e.g. earrings, necklaces, bracelets, chains etc.)</p>
<p>Substances which are classified as carcinogen category 1A or 1B in Part 3 of Annex VI to Regulation (EC) No 1272/2008 and are listed in Appendix 1 or Appendix 2, respectively. - Carcinogen category 1B (Table 3.1)/ carcinogen category 2 (Table 3.2) listed in Appendix 2 - Carcinogen category 1A (Table 3.1)/ carcinogen category 1 (Table 3.2) listed in Appendix 1</p>	<p>Please see 1907/2006/EC Appendices 1 and 2 28</p>	<p>Restricted as substances, constituents of other substances or in mixtures. Applicable exemptions (e.g. medical devices, etc.).</p>
<p>Substances which are classified as germ cell mutagen category 1A or 1B in Part 3 of Annex VI to Regulation (EC) No 1272/2008 and are listed in Appendix 3 or Appendix 4, respectively. - Mutagen category 1B (Table 3.1)/ mutagen category 2 (Table 3.2) listed in Appendix 4 - Mutagen category 1A (Table 3.1)/ mutagen category 1 (Table 3.2) listed in Appendix 3</p>	<p>Please see 1907/2006/EC Appendices 3 and 4 29</p>	<p>Restricted as substances, constituents of other substances or in mixtures. Applicable exemptions (e.g. medical devices, etc.).</p>
<p>Substances which are classified as reproductive toxicant category 1A or 1B in Part 3 of Annex VI to Regulation (EC) No 1272/2008 and are listed in Appendix 5 or Appendix 6, respectively. - Reproductive toxicant category 1B adverse effects on sexual function and fertility or on development (Table 3.1) or reproductive toxicant category 2 with R60 (May impair fertility) or R61 (May cause harm to the unborn child) (Table 3.2) listed in Appendix 6 - Reproductive toxicant category 1A adverse effects on sexual function and fertility or on development (Table 3.1) or reproductive toxicant category 1 with R60 (May impair fertility) or R61 (May cause harm to the unborn child) (Table 3.2) listed in Appendix 5</p>	<p>Please see 1907/2006/EC Appendices 5 and 6 30</p>	<p>Restricted as substances, constituents of other substances or in mixtures. Applicable exemptions (e.g. medical devices, etc.).</p>

<p>Low temperature tar oil, alkaline; extract residues (coal), low temperature coal tar alkaline. 122384-78-5, 61789-28-4, 65996-85-2, 65996-91-0, 8001-58-9, 31 Creosote oil; wash oil. Tar acids, coal, crude; crude phenols. Distillates (coal tar), upper; 8021-39-4, 84650-04-4, 90640-80-5, and 90640-84-9 heavy anthracene oil. Creosote; wash oil. Creosote, wood. Distillates (coal tar), naphthalene oils; naphthalene oil. Anthracene oil. Creosote oil, acenaphthene fraction; wash oil.</p>			<p>Banned use: treatment of wood. Applicable exemptions.</p>
<p>Chloroform</p>	<p>67-66-3</p>	<p>32</p>	<p>Restricted as a substance, or in mixtures in a concentration equal to, or greater than 0,1 % by weight where the substance or mixture is intended for supply to the general public and/or is intended for diffusive applications such as in surface cleaning and cleaning of fabrics. "For use in industrial installations only" labels. (possible exemptions for medicinal or veterinary products and cosmetic products)</p>
<p>1,1,2-Trichloroethane</p>	<p>79-00-5</p>	<p>34</p>	<p>Restricted as a substance, or in mixtures in a concentration equal to, or greater than 0,1 % by weight where the substance or mixture is intended for supply to the general public and/or is intended for diffusive applications such as in surface cleaning and cleaning of fabrics. "For use in industrial installations only" labels. (possible exemptions for medicinal or veterinary products and cosmetic products)</p>
<p>1,1,2,2-Tetrachloroethane (R-130)</p>	<p>79-34-5</p>	<p>35</p>	<p>Restricted as a substance, or in mixtures in a concentration equal to, or greater than 0,1 % by weight where the substance or mixture is intended for supply to the general public and/or is intended for diffusive applications such as in surface cleaning and cleaning of fabrics. "For use in industrial installations only" labels. (possible exemptions for medicinal or veterinary products and cosmetic products)</p>
<p>1,1,1,2-Tetrachloroethane</p>	<p>630-20-6</p>	<p>36</p>	<p>Restricted as a substance, or in mixtures in a concentration equal to, or greater than 0,1 % by weight where the substance or mixture is intended for supply to the general public and/or is intended for diffusive applications such as in surface cleaning and cleaning of fabrics. "For use in industrial installations only" labels. (possible exemptions for medicinal or veterinary products and cosmetic products)</p>
<p>Pentachloroethane</p>	<p>76-01-07</p>	<p>37</p>	<p>Restricted as a substance, or in mixtures in a concentration equal to, or greater than 0,1 % by weight where the substance or mixture is intended for supply to the general public and/or is intended for diffusive applications such as in surface cleaning and cleaning of fabrics. "For use in industrial installations only" labels. (possible exemptions for medicinal or veterinary products and cosmetic products)</p>
<p>1,1-Dichloroethene</p>	<p>75-35-4</p>	<p>38</p>	<p>Restricted as a substance, or in mixtures in a concentration equal to, or greater than 0,1 % by weight where the substance or mixture is intended for supply to the general public and/or is intended for diffusive applications such as in surface cleaning and cleaning of fabrics. "For use in industrial installations only" labels. (possible exemptions for medicinal or veterinary products and cosmetic products)</p>

Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, - 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not		40	Banned as substances or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes (e.g. artificial snow, imitation excrement, horns for parties, stink bombs etc.). 'For professional users only' for other use of aerosol dispensers label. Applicable exemptions.
Hexachloroethane	67-72-1	41	Banned as substance or in mixtures, where the substance or mixture is intended for the manufacturing or processing of non-ferrous metals.
Azocolourants and Azodyes	101200-51-5, 10169-02-5, 108321-12-6, 117-32-8, 117-33-9, 118685-33-9, 12222-00-3, 2150-53-0, 3701-0-4, 47897-65-4, 57167-02-9, 6358-57-2, 6420-06-0, 6420-09-3, 6420-22-0, 6420-25-3, 6470-20-8, 65150-87-0, 65152-14-9, 65152-15-0, 6527-65-7, 6548-29-4, 66214-51-5, 66225-65-8, 6418-17-5, 66418-8-6, 6655-95-4, 6771-84-2, 67893-48-5, 67923-89-1, 68084-09-3, 68084-21-9, 68084-22-0, 68084-23-1, -1-8, 68214-82-4, 68318-35-4, 68400-36-2, 70210-28-5, 70210-32-1, 70632-09-6, 71215-83-3, 71566-41-, 71701-30-9, 71873-63-7, 72252-59-6, 72379-45-4, 72845-86-4, 75476-99-2, 75673-18-6, 75673-19-7, 83221-63-0, 83221-64-1, 83968-66-5, 84753-06-0, 85480-84-8, 85749-99-1, 85750-05-6, 85750-06-7, 85750-07-8, 85895-85-8, 89923-60-4, 93918-04-8, 93918-27-5, 94199-55-0, 94249-03-3, and 97-56-3	43	Restricted in textile and leather articles which may come into direct and prolonged contact with the human skin or oral cavity (e.g. clothing, bedding, towels, gloves, chair cover, etc.) (threshold 0.003 % w/w). <0.1%w/w in mixture for Azodyes which are contained in Appendix 9 - 'List of azodyes' and are intended for colouring textile and leather articles.
Diphenylether, octabromo derivative C ₁₂ H ₂ Br ₈ O	32536-52-0	45	Restricted as a substance, in mixtures or in articles or flame-retardant parts in a concentration equal to, or greater than 0,1 % by weight. (possible exemptions for some articles and electrical and electronic equipment)
Nonylphenol ethoxylates (C ₂ H ₄ O) _n C ₁₅ H ₂₄ O, Nonylphenol C ₆ H ₄ (OH)C ₉ H ₁₉	25154-52-3 and others	46	Restricted as a substance or in mixtures in a concentration equal to, or greater than 0,1 % by weight, in domestic, industrial and institutional cleaning, textile and leather processing, emulsifier in agricultural teat dips, metal working, manufacturing of pulp and paper, cosmetic products, other personal care products and co-formulants in pesticides and biocides. (possible exemptions)
Nonylphenol ethoxylates (C ₂ H ₄ O) _n C ₁₅ H ₂₄ O. 4-Nonylphenol, branched, ethoxylated. 4-Nonylphenol, ethoxylated. Isononylphenol, ethoxylated. Nonylphenol, branched, ethoxylated, phosphated. Nonylphenol, branched, ethoxylated. Nonylphenol, ethoxylated.	127087-87-0, 26027-38-3, 37205-87-1, 68412-53-3, 68412-54-4, 9016-45-9	46a	Restriction after 3 February 2021 in textile articles which can reasonably be expected to be washed in water during their normal lifecycle, in concentrations equal to or greater than 0,01 % by weight of that textile article or of each part of the textile article.
Chromium VI compounds	-	47	Restricted as a substance or in mixtures, in cement and cement-containing mixtures if they contain, when hydrated, more than 2 mg/kg (0,0002%) soluble chromium VI of the total dry weight of the cement. Restricted in leather articles and articles containing leather parts coming into contact with the skin. Applicable exemptions.

Toluene	108-88-3	48	Restricted as a substance or in mixtures in a concentration equal to, or greater than 0,1 % by weight, where the substance or mixture is used in adhesives or spray paints intended for supply to the general public.
Trichlorobenzene	120-82-1	49	Restricted as a substance or in mixtures in a concentration equal to, or greater than 0,1 % by weight. Applicable exemptions.
Polycyclic-aromatic hydrocarbons (PAH) - Benzo[e]pyrene (BeP), Benzo[j]fluoranthene (BjFA), Benzo[b]fluoranthene (BbFA), Benzo[k]fluoranthene (BkFA), Chrysen (CHR), 70-3, 56-55-3 Benzo[a]pyrene (BaP), Dibenzo[a,h]anthracene (DBAhA), Benzo[a]anthracene (BaA)	192-97-2, 205-82-3, 205-99-2, 207-08-9, 218-01-9, 50-32-8, 53-50	50	Extender oils shall not be placed on the market, or used for the production of tyres or parts of tyres if they contain — more than 1 mg/kg (0,0001 % by weight) BaP, or — more than 10 mg/kg (0,001 % by weight) of the sum of all listed PAHs. 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 (e.g. sport equipment, etc). Toys, including activity toys, and childcare articles, shall not be placed on the market, 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 0,5 mg/kg (0,00005 % by weight of this component) of any of the listed PAHs. Applicable definitions, standards and exemptions.
The following phthalates : Benzyl butyl phthalate (BBP), Bis (2-ethylhexyl) phthalate (DEHP), Dibutyl phthalate (DBP), Diisobutyl phthalate (DIBP)	117-81-7, 84-74-2, 84-69-5, 85-68-7	51	Restricted in a concentration greater than 0,1 % by weight of the plasticised materials, in toys and childcare articles.
The following phthalates : Di-n-octyl phthalate (DNOP), Di-“isodecyl” phthalate (DIDP), Di-“isononyl” phthalate (DINP), 1,2-Benzenedicarboxylic acid, di-C8-10-branched alkyl esters, C9-rich, 1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	117-84-0, 26761-40-0, 28553-12-0, 68515-48-0, 68515-49-1	52	Restricted in a concentration greater than 0,1 % by weight of the plasticised materials, in toys and childcare articles which can be placed in the mouth of children.
2-(2-methoxyethoxy)ethanol (DEGME)	111-77-3	54	Restricted for supply to the general public, as a constituent of paints, paint strippers, cleaning agents, self-shining emulsions or floor sealants in concentrations equal to or greater than 0,1 % by weight.
2-(2-butoxyethoxy)ethanol (DEGBE)	112-34-5	55	Restricted for supply to the general public, as a constituent of spray paints or spray cleaners in aerosol dispensers in concentrations equal to or greater than 3 % by weight. Labelling requirements for paints other than spray paints “Do not use in paint spraying equipment”.
Methylenediphenyl diisocyanate (MDI) including the following specific isomers : 4,4'-Methylenediphenyl diisocyanate, 2,2'-Methylenediphenyl diisocyanate, Methylenediphenyl diisocyanate (MDI), 2,4'-Methylenediphenyl diisocyanate	101-68-8, 2536-05-2, 26447-40-5, 5873-54-1	56	Restricted for supply to the general public, as a constituent of mixtures in concentrations equal to or greater than 0,1 % by weight. Applicable exemption (with protective equipment and marking requirements)

Cyclohexane	110-82-7	57	Restricted for supply to the general public, as a constituent of neoprene-based contact adhesives in concentrations equal to or greater than 0,1 % by weight in package sizes greater than 350 g. Applicable exemption (with marking requirements)
Ammonium nitrate (AN)	6484-52-2	58	Restricted as a substance, or in mixtures that contain more than 28 % by weight of nitrogen in relation to ammonium nitrate, for use as a solid fertiliser, straight or compound. Otherwise restricted as a substance, or in mixtures that contain 16 % or more by weight of nitrogen in relation to ammonium nitrate. Applicable exemptions.
Dichloromethane	75-09-02	59	Restricted in paint strippers containing dichloromethane in a concentration equal to or greater than 0,1 % by weight. Applicable exemptions.
Acrylamide	79-06-01	60	Restricted as a substance or in mixtures in a concentration equal to or greater than 0,1 % by weight, for grouting applications.
Dimethylfumarate (DMF)	624-49-7	61	Restricted in articles or any parts in concentrations greater than 0,1 % by weight.
Phenylmercury propionate, Phenylmercury 2-ethylhexanoate, Phenylmercury octanoate, Phenylmercury neodecanoate, Phenylmercury acetate	103-27-5, 13302-00-6, 13864-38-5, 26545-49-3, 62-38-4	62	Restricted in substances, mixtures, articles or any parts in concentrations of mercury greater than 0,1 % by weight (after October 2017)

Lead and its compounds	7439-92-1, 85392-78-5, 85536-79-4, 85865-91-4, 85865-92-5, 63 90193-83-2, 90268-59-0, 90268-66-9, 90342-24-8, 90342-56-6, 90388-09-3, 90388-10-6, 90388-15-1, 90431-14-4, 90431-21-3, 90431-26-8, 90431-27-9, 90431-28-0, 90431-30-4, 90431-31-5, 94551-72-1, 94551-74-3, 94551-78-7, 94551-79-8, 94551-99-2, 94552-05-3, 95892-13-0, 96690-46-9, 97488-85-2, 97675-41-7, 97808-88-3, 97889-90-2, 97952-39-1, 97953-08-7, 98072-52-7, 98072-61-8, 98246-91-4, 99328-54-8, 99749-31-2, 100402-96-8, 100656-49-3, 100656-53-9, 100656-54-0, 100656-55-1, 101012- 92-4, 101013-06-3, 102047-25-6, 102110-24-7, 102110-26-9, 102110-36-1, 102110-48-5, 102110-49-6, 102110-50-9, 102110- 60-1, 102110-61-2, 102110-62-3, 17570-76-2, 199876-46-5, 79803-79-5, 69103-03-3, 6080-56-4, 90431-32-6, 90431-33-7, 90431-34-8, 90431-35-9, 90431-36-0, 90431-37-1, 90431-38-2, 90431-39-3, 90431-40-6, 90431-41-7, 90431-42-8, 90431-43-9, 90431-44-0, 90459-25-9, 90459-26-0, 90459-28-2, 90459-51-1, 90459-52-2, 90459-88-4, 90552-19-5, 90583-07-6, 90583-37-2, 90583-65-6, 91002-20-9, 91031-60-6, 91031-61-7, 91031-62-8, 91053-49-5, 91078-81-8, 91671-82-8, 91671-83-9, 91671-84-0, 91697-36-8, 91783-10-7, 92044-89-8, 92045-67-5, 92200-92-5, 93165-26-5, 93763-87-2, 93821-47-7, 93821-70-6, 93821-72-8, 93839-98-6, 93840-04-1, 93858-23-2, 93858-24-3, 93892-65-0, 93894-48-5, 93894-49-6, 93894-64-5, 93925-27-0, 93965-29-8, 93966-37-1, 93966-38-2, 93966-74-6, 93981-67-0, 94006-20-9, CAS, No.: 94015-57-3, 94232-40-3, 94246-84-1, 94246-85-2, 94246-86-3, 94246-87-4, 94246-90-9, 94246-91-0, 94246-92-1, 94246-93-2, 94266-31-6, 94266-32-7, 94349-78-7, 94481-58-0, 94551-60-7, 94551-62-9, 94551-66-3, CAS, No.: 81412-57-9, 83711-45-9, 83711-46-0, 83711-47-1, 84066-98-8, 84066-99-9, 84067-00-5, 84195-51-7, 84195-60-8, 84195-61-9, 84394-98-9, 84776-36-3, 84776-53-4, 84776-54-5, CAS, No.: 84837-22-9,	Restricted in any individual part of jewellery articles and in articles or accessible parts that may, during normal or reasonably foreseeable conditions of use, be placed in the mouth by children, in concentrations greater than 0,05 % by weight. Applicable definitions and exemptions.
1,4-Dichlorobenzene	106-46-7	64 Restricted as a substance or as a constituent of mixtures in a concentration equal to or greater than 1 % by weight, where the substance or the mixture is placed on the market for use or used as an air freshener or deodoriser in toilets, homes, offices or other indoor public areas.

Inorganic ammonium salts	10045-89-3, 10049-02-2, 10101-60-7, 10101-66-3, 10138-04-2, 65 10139-51-2, 10169-00-3, 10380-20-8, 10580-02-6, 10580-03-7, 11098-84-3, 11120-25-5, 1114-14-3, 1185-57-5, 12007-58-8, 12007-89-5, 12027-67-7, 12028-06-7, 12033-07-7, 12051-87-5, 12055-09-3, 12125-08-5, 12207-63-5, 12208-00-3, 12208-54-7, 12398-61-7, 12411-64-2, 12704-02-8, 1309-32-6, 13106-76-8, 1311-90-6, 13268-42-3, 1332-8-5, 13446-10-1, 13453-06-0, 13462-93-6, 13548-43-1, 13566-21-7, 13566-22-8, 13573-16-5, 13587-25-, 13596-46-8, 13598-65-7, 13628-49-4, 13780-11-5, 13814-87-4, 13815-28-6, 13815-31-1, 13820-40-1, 13820-41-2, 13820-58-1, 13820-94-5, 13822-80-5, 13826-83-0, 13840-04-5, 13859-62-6, 13862-78-7, 13863-45-1, 14038-43-8, 14221-47-7, 14221-48-8, 14445-91-1, 14481-29-9, 14520-70-8, 14590-13-7, 14635-18-8, 14638-69-8, 14639-94-2, 14639-97-5, 4639-98-6, 14644-70-3, 14725-69-0, 14727-95-8, 14874-86-3, 15060-55-6, 15091-94-8, 15245-12-2, 15283-48-4, 15318-60-2, 15336-18-2, 15490-91-2, 15552-06-4, 15609-81-1, 15610-76-1, 15653-40-4, 15660-29-4, 15661-00-4, 15699-18-0, 15752-05-3, 6122-03-5, 16150-61-1, 16774-21-3, 16919-19-0, 16919-31-6, 16919-58-7, 16960-53-5, 16962-40-6, 16962-47-3, 17250-81-6, 17363-02-9, 18077-77-5, 18283-82-4, 18746-63-9, 19168-23-1, 19372-45-3, 19441-09-9, 19468-86-1, 19529-40-9, 19864-63-2, 20861-69-2, 21995-29-9, 21995-30-2, 21995-31-3, 21995-32-4, 21995-33-5, 21995-34-6, 21995-38-0, 22694-75-3, 2321-53-1, 24411-12-9, 24598-62-7, 24640-21-9, 24846-92-2, 24917-46-2, 25425-97-2, 25461-53-4, 25530-63-6, 27316-90-1, 27522-09-4, 27733-50-2, 28347-83-3, 2944-67-4, 300-88-9, 30291-63-5, 31096-40-9, 31113-23-2, 31178-09-3, 31886-1-6, 32108-79-5, 32535-84-5, 52336-55-7, 562-79-8, 6591-52-2, 7637-03-8, 7783-10-0, 7783- 13-3, 783-9-, 7783-21-3, 7783-22-4, 7783-24-6, 7783-83-7, 7783- 85-9, 7784-14-7, 7784-19-2, 7784-25-0, 7784-26-1, 784-44-3,	Shall not be placed on the market, or used, in cellulose insulation mixtures or cellulose insulation articles after 14 July 2018. Exemptions and conditions apply.
4,4'-isopropylidenediphenol Bisphenol A; BPA	80-05-7 66	Shall not be placed on the market in thermal paper in a concentration equal to or greater than 0,02 % by weight after 2 January 2020

Bis(pentabromophenyl)ether (decabromodiphenyl ether; decaBDE)	4163-19-5	67	May not be manufactured or placed on the market as a substance on its own, or as a mixture, component, article, or any part thereof in a concentration equal to or greater than 0.1% by weight, after March 2017. Aircraft production is exempt from this new restriction until March 2, 2027. And there are exemptions for electrical and electronic equipment within the scope of Directive 2011/65/EU with PBDE restrictions, motor vehicles within the scope of Directive 2007/46/EC, agricultural and forestry vehicles within the scope of Regulation (EU) No 167/2013, and machinery within the scope of Directive 2006/42/EC.
C9-C14 linear and/or branched perfluorocarboxylic acids (C9-C14 PFCAs), their salts and C9-C14 PFCAs-related substances, perfluorononan-1-oic acid (PFNA); nonadecafluorodecanoic acid (PFDA); hencosafluoroundecanoic acid (PFUnDA); tricosfluorododecanoic acid (PFDoDA); pentacosfluorotridecanoic acid (PFTrDA); heptacosfluorotetradecanoic acid (PFTDA); including their salts and precursors	2058-94-8, 307-55-1, 335-76-2, 375-95-1, 376-06-7, 72629-94-8	68	Shall not be manufactured, or placed on the market as substances on their own from 25 February 2023. Shall not, from 25 February 2023, be used in, or placed on the market in: (a) another substance, as a constituent; (b) a mixture; (c) an article. Exemptions apply.
Methanol	67-56-1	69	Shall not be placed on the market to the general public after 9 May 2019 in windscreen washing or defrosting fluids, in a concentration equal to or greater than 0,6 % by weight.
Octamethylcyclotetrasiloxane (D4); Decamethylcyclopentasiloxane (D5)	541-02-6, 556-67-2	70	Shall not be placed on the market in wash-off cosmetic products in a concentration equal to or greater than 0,1 % by weight of either substance, after 31 January 2020.
1-methyl-2-pyrrolidone (NMP)	872-50-4	71	Shall not be placed on the market nor manufactured or used as a substance on its own or in mixtures in a concentration equal to or greater than 0,3 % after 9 May 2020. Possible derogation for solvent and reactant in the process of coating wires.

<p>The following substances which are classified as carcinogenic, mutagenic or toxic for reproduction, category 1A or 1B: Cadmium and its compounds, Chromium VI compounds, Arsenic compounds, Lead and its compounds, Benzene, Benz[a]anthracene, Benz[e]acephenanthrylene, benzo[a]pyrene, benzo[def]chrysene, Benzo[e]pyrene, Benzo[j]fluoranthene, Benzo[k]fluoranthene, Bis(2-methoxyethyl) phthalate, Chrysene, Dibenz[a,h]anthracene, $\alpha,\alpha,4$-tetrachlorotoluene; pchlorobenzotrichloride, α,α-trichlorotoluene; benzotrichloride, α-chlorotoluene; benzyl chloride, Formaldehyde, 1,2-benzenedicarboxylic acid; diC 6-8-branched alkylesters, C 7-rich, Diisopentylphthalate, Din-pentyl phthalate (DPP), Di-n-hexyl phthalate (DnHP), N-methyl-2-pyrrolidone; 1-methyl-2-pyrrolidone (NMP), N,N-dimethylacetamide (DMAC), N,N-dimethylformamide; dimethyl formamide (DMF), 1,4,5,8-tetraaminoanthraquinone; C.I. Disperse Blue 1, Benzenamine, 4,4'-(4-iminocyclohexa-2,5- dienyliidenemethylene)dianiline hydrochloride; C.I. Basic Red 9, [4-[4,4'-bis(dimethylamino)benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride; C.I. Basic Violet 3 with $\geq 0,1$ % of Michler's ketone, 4-chloro-o-toluidinium chloride, 2-Naphthylammoniumacetate, 4-methoxy-m-phenylene diammonium sulphate; 2,4-diaminoanisole sulphate, 2,4,5-trimethylaniline hydrochloride, Quinoline.</p>	<p>Please see appendix 12. 100-44-7, 117-82-8, 127-19-5, 131-18- 72 0, 192-97-2, 205-82-3, 205-99-2, 207-08-9, 21436-97-5, 218-01-9, 2475-45-8, 3165-93- 3, 39156-41-7, 50-00-0, 50-32-8, 5216-25-1, 53-70-3, 548-62-9, 553-00-4, 56-55-3, 569-61-9, 605-50-5, 68-12-2, 71-43-2, 71888- 89-6, 84-75-3, 872-50-4, 91-22-5, 98-07-7, and others</p>	<p>Shall not be placed on the market after 1 November 2020 in any of the following: (a) clothing or related accessories; (b) textiles other than clothing which, under normal or reasonably foreseeable conditions of use, come into contact with human skin to an extent similar to clothing; (c) footwear; (Thresholds, condutions and exeptions apply)</p>
<p>(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)silanetriol and any of its mono-, di- or tri-O- - (alkyl) derivatives (TDFAs)</p>	<p>73</p>	<p>Shall not be placed on the market for supply to the general public after 2 January 2021 individually or in any combination, in a concentration equal to or greater than 2 ppb by weight of the mixtures containing organic solvents, in spray products. Additional marking and communication details.</p>
<p>Diisocyanates, O = C=N-R-N = C=O, with R an aliphatic or aromatic hydrocarbon unit of unspecified length</p>	<p>101-68-8, 2162-73-4, 2536-05-2, 26471-62-5, 2778-42-9, 3173- 74 72-6, 3634-83-1, 4098-71-9, 5124-30-1, 584-84-9, 5873-54-1, 822-06-0, 91-08-7, 91-97-4</p>	<p>Shall not be used as substances on their own, as a constituent in other substances or in mixtures for industrial and professional use(s) after 24 August 2023, unless:</p> <p>(a) the concentration of diisocyanates individually and in combination is less than 0.1 % by weight, or</p> <p>(b) the employer or self-employed ensures that industrial or professional user(s) have successfully completed training on the safe use of diisocyanates prior to the use of the substance(s) or mixture(s).</p> <p>2. Shall not be placed on the market as substances on their own, as a constituent in other substances or in mixtures for industrial and professional use(s) after 24 February 2022, unless:</p> <p>(a) the concentration of diisocyanates individually and in combination is less than 0.1 % by weight, or</p> <p>(b) the supplier ensures that the recipient of the substance(s) or mixture(s) is provided with information on the requirements and the following statement is placed on the packaging, in a manner that is visibly distinct from the rest of the label information: "As from 24 August 2023 adequate training is required before industrial or professional use".</p>
<p>Substances in tattoo inks and permanent make up</p>	<p>-</p>	<p>75</p> <p>List of restricted substances for tattooing purposes, after January 4th, 2022, including arsenic, barium, cadmium, chromium, cobalt, lead, mercury, nickel, selenium, various pigments, zinc. Some exemptions apply.</p>

N,N-dimethylformamide

1968-12-02

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Shall not be placed on the market as a substance on its own, as a constituent of other substances, or in mixtures in a concentration equal to or greater than 0,3 % after 12 December 2023.

Exemptions apply.