BOMcheck REACH Candidate List (SVHC) screening for Supplied Articles

July 2025

Simplifying Compliance with REACH and SCIP

Substances of Very High Concern (SVHCs)

- As of 25 June 2025, the REACH Candidate List has increased to 250 substances.
- Under Article 33 of the REACH Regulation, companies must provide customers with:
  - The name of any SVHC present in articles at more than 0.1% by weight.
  - Sufficient information to enable safe use of the article.

SCIP Database Reporting

- Since 5 January 2021, EU & EEA-based companies must report to the ECHA SCIP database if any article contains an SVHC above 0.1% by weight.

How BOMcheck Helps - Screening to Save Time and Cost

- BOMcheck substance screening can cut compliance time and cost by around 60%.
- BOMcheck screens out 123 substances that are not typically found in parts or materials above 0.1%, reducing the list of SVHCs for investigation to 127.

Using Industry Knowledge

- BOMcheck follows ECHA guidance, which advises using industry knowledge to:
  - Identify SVHCs likely to appear in specific materials.
  - Rule out substances unlikely to be present.

Standards for Compliance

- BOMcheck works with the IEC 62474 materials declaration standard, supporting compliance through reliable, standardised systems.

Reducing the Compliance Burden - Clear Guidance for Suppliers

- BOMcheck provides detailed guidance for the remaining SVHCs, helping suppliers focus on:
  - 113 substances, as 14 are only found in exotic materials and components.

Practical Tools for Compliance

- Suppliers can use BOMcheck to:
  - Identify materials at risk of containing SVHCs (e.g., if a material doesn't use PVDF plastic, related SVHCs can be ruled out).
  - Access details on known uses, addition rates, and trade names of SVHCs.

By narrowing the focus to substances most likely to appear, BOMcheck helps suppliers save time, reduce costs, and meet REACH and SCIP requirements.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
Included in REACH Candidate List on 28 October 2008			
Triethyl arsenate	15606-95-8	No	Triethyl arsenate is used as a process chemical in the manufacturing process for semiconductor components (for example, Gallium Arsenide components). The triethyl arsenate is fully reacted during the manufacturing process. As a result, triethyl arsenate is not detectable as a substance above 0.1% w/w in the manufactured semiconductor components.
Sodium dichromate, dihydrate	7789-12-0, 10588-01-9	No	Sodium dichromate (dehydrate form) is used in the metal finishing industry for chrome plating and corrosion resistance (passivating and anodising). The metal finishing processes are followed by several rinsing processes to remove excess process solution from the surface of the treated article. Therefore, in all of these cases, Sodium dichromate (dehydrate form) is not detectable as a substance in, or on, the treated article.
Lead hydrogen arsenate	7784-40-9	No	Lead hydrogen arsenate was previously used as a pesticide in agricultural applications. This application is not relevant to the electrotechnical industry.
Hexabromocyclododecane (HBCDD) and all major diastereoisomers	25637-99-4, 3194-55-6, 134237-50-6, 134237-51-7, 134237-52-8	Yes	See detailed chemicals guidance in BOMcheck for further information.
Dibutyl phthalate (DBP)	84-74-2	Yes	See detailed chemicals guidance in BOMcheck for further information.
Diarsenic trioxide	1327-53-3	Yes	See detailed chemicals guidance in BOMcheck for further information.
Diarsenic pentoxide	1303-28-2	Yes	See detailed chemicals guidance in BOMcheck for further information.
Tributyl tin oxide (TBTO)	56-35-9	Yes	See detailed chemicals guidance in BOMcheck for further information.
Bis (2-ethylhexyl) phthalate (DEHP)	117-81-7	Yes	See detailed chemicals guidance in BOMcheck for further information.
Benzyl butyl phthalate (BBP)	85-68-7	Yes	See detailed chemicals guidance in BOMcheck for further information.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
Anthracene	120-12-7	No	Anthracene is used as an intermediate in the production of dyes and pesticides. It is used in pyrotechnics for film and theatre productions as a component of black smoke. Anthracene is also found in coal tar derivatives such as creosote used for the treatment of wood for use in the construction industry. These applications are not relevant to the electrotechnical industry.
Shortchain Chlorinated Paraffins (C10 – C13)	85535-84-8	Yes	See detailed chemicals guidance in BOMcheck for further information.
5-tert-butyl-2,4,6-trinitro-m-xylene	81-15-2	No	5-tert-butyl-2,4,6-trinitro-m-xylene (also known as musk xylene) as has been used since the early 1900s as a fragrance ingredient in perfumes, soaps, detergents and cosmetics. This application is not relevant to the electrotechnical industry.
4,4'-Diaminodiphenylmethane	101-77-9	No	4,4'- Diaminodiphenylmethane (also known as MDA) is used as a hardener for epoxy resins, hardener in adhesives and intermediate in the manufacture of polyurethane. However, in all cases the substance becomes fully reacted in a polymerisation process. As a result, 4,4'- Diaminodiphenylmethane is not detectable as a substance above 0.1% w/w in supplied articles.
Cobalt dichloride (CoCl2)	7646-79-9	Yes	See detailed chemicals guidance in BOMcheck for further information.
Included in REACH Candidate List on 13 January 2010: Unique ID == EUREACH-0110			
~~*Refractory Ceramic Fibres, Zirconia Aluminosilicate*~~			In the June 2012 update to the REACH Candidate List, ECHA consolidated the entries for Aluminosilicate Refractory Ceramic Fibres and Zirconia Aluminosilicate Refractory Ceramic Fibres which were included in the List in January 2010 and also in December 2011. The ECHA Press Release notes that the scope of the more recent Aluminosilicate Refractory Ceramic Fibres and Zirconia Aluminosilicate Refractory Ceramic Fibres entries in the December 2011 List fully covers the earlier entries in the January 2010 List, and so these earlier entries are now consolidated into the December 2011 List. The REACH Candidate List published by ECHA now has only one entry for Aluminosilicate Refractory Ceramic Fibres and only one entry for Zirconia Aluminosilicate Refractory Ceramic Fibres, and these entries are included in the December 2011 List. The January 2010 List no longer includes Refractory Ceramic Fibres, Zirconia Aluminosilicate and Refractory Ceramic Fibres, Aluminosilicate.
~~*Refractory Ceramic Fibres, Aluminosilicate*~~			

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
Tris (2-chloroethyl) phosphate (TCEP)	115-96-8	Yes	See detailed chemicals guidance in BOMcheck for further information.
Coal tar pitch, high temperature	65996-93-2	No	Coal tar pitch is used for making anodes and electrodes for electric arc furnaces for aluminium and steel industries. It is also used as a binder in clay-pigeons for sport shooting and for roofing products. These applications are not relevant to the electrotechnical industry.
Lead sulfochromate yellow (C.I. Pigment Yellow 34)	1344-37-2	Yes	See detailed chemicals guidance in BOMcheck for further information.
Lead chromate molybdate sulfate red (C.I. Pigment Red 104)	12656-85-8	Yes	See detailed chemicals guidance in BOMcheck for further information.
Lead chromate	7758-97-6	Yes	See detailed chemicals guidance in BOMcheck for further information.
Diisobutyl phthalate (DIBP)	84-69-5	Yes	See detailed chemicals guidance in BOMcheck for further information.
Anthracene oil, anthracene paste,distn. Lights	91995-17-4	No	Anthracene is used as an intermediate in the production of dyes and pesticides. It is used in pyrotechnics for film and theatre productions as a component of black smoke. Anthracene is also found in coal tar derivatives such as creosote used for the treatment of wood for use in the construction industry. These applications are not relevant to the electrotechnical industry.
Anthracene oil, anthracene paste,anthracene fraction	91995-15-2	No	
Anthracene oil, anthracene paste	90640-81-6	No	
Anthracene oil, anthracene-low	90640-82-7	No	
Anthracene oil	90640-80-5	No	

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
2,4-Dinitrotoluene	121-14-2	No	2,4-Dinitrotoluene is used as an intermediate in the manufacture of explosives (examples include TNT) and isocyanates (the isocyanates are then used to manufacture flexible polyurethane foams). 2,4-Dinitrotoluene is also used in propellants (examples include smokeless gunpowder). These applications are not relevant to the electrotechnical industry.
Included in REACH Candidate List on 30 March 2010: Unique ID == EUREACH-0310			
Acrylamide	79-06-1	No	Acrylamide is used as an intermediate in the production of polyacrylamides, which are used in various applications, in particular in waste water treatment and paper processing. This application is not relevant to the electrotechnical industry.
Included in REACH Candidate List on 18 June 2010: Unique ID == EUREACH-0610			
Sodium chromate	7775-11-3	No	Sodium chromate, potassium chromate, ammonium dichromate and potassium dichromate are used as intermediates in the production of chromium pigments and dyes (e.g. based on lead, strontium, barium and zinc cations). Sodium chromate, potassium chromate, ammonium dichromate and potassium dichromate themselves are not used as pigments or dyes. Sodium chromate, potassium chromate, ammonium dichromate and potassium dichromate are used as process chemicals in electroplating (chrome plating) and conversion coatings (passivating and anodizing). In the passivation process, the strong oxidative properties of chromates are used to deposit a protective oxide layer of complex chromium compounds on metallic surfaces. The anodizing process is used only for alumunium and increases the thickness of the natural oxide layer on the surface of the aluminium. A sealing process is then used to fill the pores in the aluminium oxide layer. In all of these applications, sodium chromate, potassium chromate, ammonium dichromate and potassium dichromate are not detectable as substances in the electroplated or conversion coated part. The dichromates are also used as a mordant (reagent) in the leather tanning industry and the textile industry. The reaction process is based on an oxidation-reduction reaction. Sodium chromate, potassium chromate, ammonium
Potassium chromate	7789-00-6	No	
Ammonium dichromate	7789-09-5	No	

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
Potassium dichromate	7778-50-9	No	dichromate and potassium dichromate are not detectable as substances in the leather or textile articles. Potassium dichromate and sodium dichromate are used in the manufacture of wood preservatives including copper chrome arsenic (CCA). The dichromates are reduced to form a complex solution of copper chromates and arsenates. Potassium dichromate and sodium dichromate are not detectable as substances in the treated wood. An aqueous slurry of ammonium dichromate, polyvinyl alcohol and phosphor is spin-coated to produce the phosphor raster of older models of televisions and other cathode-ray tube display devices. However, the percentage weight of ammonium dichromate in the cathode ray tube is considerably less than 0.1% by weight of the tube.
Tetraboron disodium heptaoxide, hydrate	12267-73-1	Yes	See detailed chemicals guidance in BOMcheck for further information.
Disodium tetraborate, anhydrous	1303-96-4, 1330-43-4, 12179-04-3	Yes	See detailed chemicals guidance in BOMcheck for further information.
Boric acid	10043-35-3, 11113-50-1	Yes	See detailed chemicals guidance in BOMcheck for further information.
Trichloroethylene	79-01-6	No	Trichloroethylene is a clear, non-flammable solvent which has an ideal vapour pressure for use as a hot metal degreaser and as a solvent in specialist adhesives where a low flammability solvent is required. It has also been used as a solvent in the leather and textiles processing industries and was previously used as a solvent in paint, inks, lacquers and varnishes (this use was discontinued. The vapour pressure of trichloroethylene is around 82 kPa at 20^{o}C which means it evaporates at a relatively fast rate at room temperature (for example, the vapour pressure of ethanol is around 9 kPa at 20^{o}C). As a result, trichloroethylene is not detectable as a substance in hardware products or electrical/electronic equipment.
Included in REACH Candidate List on 15 December 2010: Unique ID == EUREACH-1210			

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
2-Ethoxyethanol	110-80-5	No	2-Ethoxyethanol is a colourless liquid at room temperature which boils at about 135°C. Also known by the trademark Cellosolve or as ethyl cellosolve, 2-Ethoxyethanol is a solvent which is used widely in commercial and industrial applications. The vapour pressure of 2-Ethoxyethanol is around 5.3 hPa at 20°C which means it evaporates at a moderate rate at room temperature (for example, the vapour pressure of ethanol is around 9 hPa at 20°C). 2-Ethoxyethanol production is used as a solvent in a wide range of commercial and industrial applications. It will dissolve oils, resins, grease, waxes, nitrocellulose, and lacquers. This is an ideal property as a multi-purpose cleaner and therefore 2-ethoxyethanol is used in products such as varnish removers and degreasing solutions. 2-ethoxyethanol is also used as a solvent in the formulation of paints, lacquers, varnishes and printing inks. In all of these applications, 2-Ethoxyethanol evaporates during use and as a result 2-Ethoxyethanol is not detectable as a substance in articles in concentrations > 0.1% w/w of the article.
2-Methoxyethanol	109-86-4	No	2-Methoxyethanol is a colourless, viscous liquid at room temperature which boils at about 124°C and has an ether-like odor. The vapour pressure of 2-Methoxyethanol is around 10 hPa at 20°C which means it evaporates at a moderate rate at room temperature (for example, the vapour pressure of ethanol is around 9 hPa at 20°C). 2-Methoxyethanol has previously been used as a carrier solvent where is it is used to dissolve chemicals such as cellulose acetate, various resins used in the electronics industry, and certain dyes. 2-Methoxyethanol has also been used as a drying solvent to create quick-drying varnishes, paints, enamels, nail polishes, and wood stains. In all of these applications, 2-Methoxyethanol evaporates during use and as a result 2-Methoxyethanol is not detectable as a substance in articles in concentrations > 0.1% w/w of the article.
Cobalt(II) Carbonate	513-79-1	No	Cobalt(II) Carbonate decomposes on heating to form Cobalt Oxide and Carbon Dioxide. This property enables Cobalt(II) Carbonate to be used in the production of cobalt pigments for ceramics and glasses and used in ceramics, glazes and enamels to protect from discolouring. However, Cobalt(II) Carbonate is not detectable as a substance in, or on, the finished ceramics, glazes or enamels.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
Cobalt(II) Dinitrate	10141-05-6	No	Cobalt(II) Dinitrate is used as a chemical ingredient in surface treatment processes including anodizing, electro-deposition and non-electrodeposition of cobalt and other metal platings. Cobalt(II) Dinitrate is also used as a chemical ingredient in corrosion protection processes. In all these cases, Cobalt(II) Dinitrate is not detectable as a substance in, or on, the finished hardware article. Cobalt salts, including Cobalt(II) Dinitrate, are used in the manufacture of LiOn, NiCd and NiMH batteries. However, Cobalt(II) Dinitrate is not detectable as a substance in LiOn, NiCd or NiMH batteries. Cobalt(II) Dinitrate decomposes at 105°C to generate nitrous oxides. This property enables Cobalt(II) Dinitrate to be used in the production of cobalt pigments for ceramics and glasses and used in ceramics, glazes and enamels to protect from discolouring. However, Cobalt(II) Dinitrate is not detectable as a substance in, or on, the finished ceramics, glazes or enamels.
Cobalt(II) Sulphate	10124-43-3	No	Cobalt(II) Sulphate is used as a chemical ingredient in surface treatment processes including anodizing, electro-deposition and non-electrodeposition of cobalt and other metal platings. Cobalt(II) Sulphate is also used as a chemical ingredient in corrosion protection processes. In all these cases, Cobalt(II) Sulphate is not detectable as a substance in, or on, the finished hardware article. Cobalt salts, possibly including Cobalt(II) Suphate, are used in the manufacture of LiOn, NiCd and NiMH batteries. However, Cobalt(II) Sulphate is not detectable as a substance in LiOn, NiCd or NiMH batteries. Cobalt salts, possibly including Cobalt(II) Sulphate, are used in the manufacture of magnetic recording materials (for example video tapes). However, Cobalt(II) Sulphate is not detectable as a substance in, or on, the finished magnetic recording material. Cobalt(II) Sulphate decomposes at 735°C to oxides of sulphur and cobalt/cobalt oxides. This property enables Cobalt(II) Sulphate to be used in the production of cobalt pigments for ceramics and glasses and used in ceramics, glazes and enamels to protect from discolouring. However, Cobalt(II) Sulphate is not detectable as a substance in, or on, the finished ceramics, glazes or enamels.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
Cobalt(II) Diacetate	71-48-7	No	Cobalt(II) Diacetate is used as a chemical ingredient in surface treatment processes including anodizing, electro-deposition and non-electrodeposition of cobalt and other metal platings. Cobalt(II) Diacetate is also used as a chemical ingredient in corrosion protection processes. In all these cases, Cobalt(II) Diacetate is not detectable as a substance in, or on, the finished hardware article. Cobalt(II) Diacetate starts to decompose at 140 °C and fully decomposes at 298 °C. Cobalt(II) Diacetate is used in the production of cobalt pigments for ceramics and glasses and used in ceramics, glazes and enamels to protect from discolouring. However, Cobalt(II) Diacetate is not detectable as a substance in, or on, the finished ceramics, glazes or enamels. Cobalt soaps (including Cobalt(II) Diacetate) are incorporated into rubber to assist the bonding of steel to the rubber during the vulcanization process (e.g. to make car tyres). Cobalt(II) Diacetate starts to decompose at 140°C with the loss of water of hydration and fully decomposes at 298°C. Rubber vulcanisation processes are generally carried out between 160°C and 200°C. Therefore, Cobalt(II) Diacetate is not detectable as a substance in the vulcanized rubber / steel article in concentrations > 0.1% w/w of the article. The Cobalt Development Institute has also confirmed that the purpose of adding Cobalt(II) Diacetate to the rubber is to synthesize other substances which promote adhesion of the rubber. Cobalt(II) Diacetate is used to speed up the drying process for paints, inks and varnishes which are based on unsaturated oils such as linseed oil and soybean oil. Where Cobalt(II) Diacetate is used, water-based alkyd paints can contain about 0.2% Cobalt(II) Diacetate whereas oil-based paints contain between 0.01% and 0.05% Cobalt(II) Diacetate. However, the weight of the paint layer on the article will be less than 5% of the article weight. Therefore in both cases, the concentration of Cobalt(II) Diacetate that could be detectable in, or on, the article will be considerably less than 0.1% w/w of the article. In view of this, Cobalt(II) Diacetate is not detectable as a substance in painted or varnished articles in concentrations > 0.1% w/w of the article.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
Chromium Trioxide	1333-82-0	No	Chromium Trioxide is mainly used as a solution in water. When Chromium Trioxide is dissolved in water, the resulting solution contains an equilibrium of Chromium Trioxide, Chromic Acid, Dichromic Acid and oligomers of these acids. Accordingly, the applications where Chromic Acid and Dichromic Acid may be used in the hardware and electronics industry are exactly the same as the applications for Chromium Trioxide. Chromium Trioxide is used as an ingredient for electroplating processes (e.g. hard chrome plating, decorative or bright-chrome plating) conversion coatings (e.g. passivation of zinc, aluminium, cadmium and brass) and in metal pickling processes. These metal finishing processes are followed by several rinsing processes to remove excess process solution from the surface of the treated article. Therefore, in all of these cases, Chromium Trioxide, Chromic Acid and Dichromic acid are not detectable as a substances in, or on, the treated article. Chromium Trioxide is used in the manufacture of copper chrome arsenic (CCA) word preservatives and other chromium containing wood preservatives including copper chrome (CC), copper chrome boron (CCB) and copper chrome phosphate (CCP). These wood preservatives are used in industrial timber treatment plants. Most industrial CCA treatment plants use vacuum pressure impregnation during which all of the Cr(VI) is reduced to Cr(III) in which case Chromic Acid is not detectable as a substance in the treated wooden article. In other treatment processes, the Chromium Trioxide is reduced to form a complex solution of copper chromates. Chromium Trioxide, Chromic Acid and Dichromic acid are not detectable as a substance in the treated wood.
Acids generated from chromium trioxide and their oligomers	7738-94-5, 13530-68-2	No	
Included in REACH Candidate List on 20 June 2011: Unique ID == EUREACH-0611			
1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)	68515-42-4	Yes	See detailed chemicals guidance in BOMcheck for further information.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71888-89-6	Yes	See detailed chemicals guidance in BOMcheck for further information.
1,2,3-Trichloropropane	96-18-4	No	1,2,3-trichloropropane is a colorless liquid at room temperature which boils at about 157°C and has a sharp, sweet smell. It has a vapour pressure of 290 Pa at 20°C and evaporates quickly at room temperature. Today 1,2,3-Trichloropropane is used primarily as a building block for the synthesis of other products (e.g. pesticides) and also as a cross-linking agent in the production of certain polymers (e.g. Polysulfide elastomers, Hexafluoropropylene). It has previously been used as solvent in degreasing agents and in paint and varnish removers. In these applications, 1,2,3-trichloropropane is used as a solvent and evaporates during the application process. Therefore, 1,2,3-trichloropropane is not detectable as a substance in concentrations > 0.1% by weight of the supplied article.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
1-Methyl-2-pyrrolidone	872-50-4	No	1-methyl-2-pyrrolidone is a colourless liquid at room temperature which has an ammonia-like smell and boils at about 204°C and has a vapour pressure of 40 Pa at 20°C. It is used as a solvent to dissolve a wide range of chemicals (especially polymers) and also as a solvent for surface treatment of textiles, resins and metal coated plastics, in paint strippers. 1-methyl-2-pyrrolidone is used as a solvent for baked coatings which are cured at relatively high temperatures, in a very wide range of applications encompassing industrial, professional and consumer uses. The concentration of 1-methyl-2-pyrrolidone in paint ranges between 1 – 10%. 1-methyl-2-pyrrolidone is also used as a powerful cleaning solvent for plastics, resins, oils and grease. For example, it can be used alone or in blends for removal of oil, carbon deposits and other tarry polymeric residues from metal chambers, pistons and cylinders of engines. 1-methyl-2-pyrrolidone is also used as a solvent in the electronics industry. 1-methyl-2-pyrrolidone is used as a carrier solvent for photoresists and is also used as a stripper to remove photoresist from wafers and photo masks during semiconductor manufacturing. In all of these applications, 1-methyl-2-pyrrolidone is used as a solvent and evaporates during the application process. Therefore, 1-methyl-2-pyrrolidone is not detectable as a substance in concentrations > 0.1% by weight of the supplied article.
Hydrazine	302-01-2, 7803-57-8	No	Anhydrous Hydrazine (CAS 302-01-02) is used as a propellant for aerospace vehicles (satellite propulsion and upper stages of satellite launchers), as a fuel in military emergency power units (e.g. for F-16 fighter jets and gas generators for submarine rescue systems), as a controlled explosive, and as an intermediate to manufacture other chemicals. None of these uses are relevant to hardware products or electrical and electronic equipment. Hydrated Hydrazine (CAS 7803-57-8) is formed when anhydrous hydrazine is mixed with water. Hydrated Hydrazine (CAS 7803-57-8) is also known as hydrazine hydroxide and the chemical solution is sold for use in several applications including for use in water treatment, as a laboratory reagent and for use in chemical reactions to make other chemicals. Hydrated Hydrazine is an aqueous solution and is not found in hardware products or electrical and electronic equipment.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
Strontium chromate	7789-06-2	No	Strontium chromate is a light yellow powder or granular solid which decomposes at about 500°C to chromium (III) oxide. It is used as a rust-inhibiting pigment to provide corrosion protection to metal substrates (iron, steel, zinc and aluminium). Due to its toxicity, the use of strontium chromate is now restricted to a few applications where there are no alternatives. As a result, the main current commercial applications of strontium chromate are as a pigment in primers for aerospace applications (for the protection of aluminium) and coil coated galvanized steel (for the protection of zinc and steel). A typical chromate primer contains around 3 to 5% strontium chromate pigment. The coil coating process involves applying very thin (5 to 20 micron thick) and highly uniform layers of paint to a moving, flat metal strip (coil) in a continuous and automatic process. Strontium chromate is used exclusively in primer paints beneath a top-coat in the finished product. In all of these primers applications, the weight of strontium chromate used relative to the weight of the metal substrate means that the strontium chromate will always represent < 0.1% w/w of the finished article.
2-Ethoxyethyl acetate	111-15-9	No	2-ethoxyethyl acetate is a colourless liquid at room temperature which boils at about 156°C. It is a Volatile Organic Compound (VOC) and has a vapour pressure of 270 Pa at 20°C. 2-Ethoxyethyl acetate is mainly used as a solvent in the chemical industry and as a solvent in some paints, coatings and adhesives, as well as in some wood stains and lacquers and varnishes for industrial use (e.g. in automobile lacquers to retard evaporation and impart a high gloss). 2-Ethoxyethyl acetate is also used as a hardener for epoxy resins. In all of these applications, 2-ethoxyethyl acetate evaporates or is reacted during use and as a result 2-ethoxyethyl acetate is not detectable as a substance in articles in concentrations > 0.1% w/w of the article.
Included in REACH Candidate List on 19 December 2011: Unique ID == EUREACH-1211			
2,2'-dichloro-4,4'-methylenedianiline	101-14-4	Yes	See detailed chemicals guidance in BOMcheck for further information.
Bis(2-methoxyethyl) phthalate	117-82-8	Yes	See detailed chemicals guidance in BOMcheck for further information.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
Bis(2-methoxyethyl) ether	111-96-6	Yes	See detailed chemicals guidance in BOMcheck for further information.
Calcium arsenate	7778-44-1	No	Calcium arsenate is present as impurities in complex raw materials which are imported for the subsequent manufacture of copper, lead and a range of precious metals. During the metallurgical process the arsenic impurities are disposed of as waste. Calcium arsenate is also used as a precipitating agent in copper smelting and to manufacture diarsenic trioxide. As a result, calcium arsenate is not found in concentrations > 0.1% w/w in hardware articles.
Potassium hydroxyoctaoxodizincatedi-chromate	11103-86-9	No	Potassium hydroxyoctaoxodizincatedi-chromate and pentazinc chromate octahydroxide are used as rust-inhibiting pigments to provide corrosion protection to metal substrates (iron, steel, zinc and aluminium). The main current commercial applications of potassium hydroxyoctaoxodizincatedi-chromate and pentazinc chromate octahydroxide are as pigments in primers for aerospace and automotive applications (for the protection of aluminium) and coil coated galvanized steel (for the protection of zinc and steel). A typical chromate primer contains around 3 to 5% potassium hydroxyoctaoxodizincatedi-chromate pigment or pentazinc chromate octahydroxide pigment. The coil coating process involves applying very thin (5 to 20 micron thick) and highly uniform layers of paint to a moving, flat metal strip (coil) in a continuous and automatic process. Potassium hydroxyoctaoxodizincatedi-chromate and pentazinc chromate octahydroxide are used exclusively in primer paints beneath a top-coat in the finished product. In all of these primers applications, the weight of potassium hydroxyoctaoxodizincatedi-chromate pigment and pentazinc chromate octahydroxide used relative to the weight of the metal substrate means that the potassium hydroxyoctaoxodizincatedi-chromate and pentazinc chromate octahydroxide will always represent < 0.1% w/w of the finished article.
Pentazinc chromate octahydroxide	49663-84-5	No	
Lead dipicrate	6477-64-1	No	Lead dipicrate is an explosive which, because of its extreme sensitivity to impact, has been replaced by easier to handle superior explosives such as lead diazide and lead styphnate. Due to its explosive properties, lead dipicrate is not found in concentrations > 0.1% w/w in hardware articles.
N,N-dimethylacetamide	127-19-5	Yes	See detailed chemicals guidance in BOMcheck for further information.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
Arsenic acid	7778-39-4	No	Arsenic acid is used as a fining agent in the manufacturer of ceramic glass (to remove gas bubbles from the glass melt) which is mainly used for vitro-ceramic household appliances. Arsenic acid decomposes when heated above 100°C to form arsenic pentoxide, which undergoes further decomposition above 300 °C. Both of these temperatures are exceeded during the manufacture of ceramic glass. As a result, arsenic acid is not detectable as a substance in ceramic glass articles. Arsenic acid is also used in manufacture of copper foil laminate for printed circuit boards where it is reduced to elemental arsenic (i.e. arsenic acid is not detectable as a substance on the copper foil laminate).
2-Methoxyaniline; o-Anisidine	90-04-0	No	o-Anisidine, also known as 2-Methoxyaniline, is used as an intermediate to manufacture dyes for tattooing and coloration of paper, polymers and aluminium foil. In all these applications, o-Anisidine is reacted to form another substance (the dye). As a result, o-Anisidine is not present in concentrations > 0.1% w/w in hardware articles.
Trilead diarsenate	3687-31-8	No	Trilead diarsenate is present as impurities in complex raw materials which are imported for the subsequent manufacture of copper, lead and a range of precious metals. During the metallurgical process the arsenic impurities are disposed of as waste. As a result, trilead diarsenate is not found in concentrations > 0.1% w/w in hardware articles.
1,2-dichloroethane	107-06-2	No	Over 95% of 1,2-Dichloroethane is used as an intermediate for the manufacture of vinyl chloride monomer for production of polyvinyl chloride (PVC). The substance is also used as an intermediate in the manufacture of fine chemicals (e.g. ethyleneamines and vinylidene chloride) and as a solvent in the chemical and pharmaceutical industry. As a result, 1,2-Dichloroethane is not found in concentrations > 0.1% w/w in hardware articles.
Formaldehyde, oligomeric reaction products with aniline	25214-70-4	No	Formaldehyde, oligomeric reaction products with aniline is also known as Polymeric MDA (PMDA) and has very similar uses to MDA. About 98% of PMDA is used as in intermediate to manufacture methylene diphenyl-diisocyanate (MDI). Other uses of PMDA include as a hardener for epoxy resins (e.g. for the production of rolls, pipes and moulds) and as a hardener for epoxy resin adhesives. In all these applications, PMDA is reacted in a polymerization process and so PMDA is not present in concentrations > 0.1% w/w in hardware articles.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
4-(1,1,3,3-tetramethylbutyl)phenol	140-66-9	No	4-(1,1,3,3-tetramethylbutyl)phenol, also known as 4-tert-Octylphenol, is mainly used as an intermediate to manufacture phenolic resins (98%) and octylphenol ethoxyates (2%) which are further used as a component in adhesives, coatings, inks and rubber articles. 4-tert-Octylphenol also has minor uses in solvent free paints for exterior use and in solvent based adhesives and putty. As a result, 4-tert-Octylphenol is not found in concentrations > 0.1% w/w in hardware articles.
Lead diazide, Lead azide	13424-46-9	No	Lead azide, also known as lead diazide, is explosive which is used as an initiator or booster in detonators for both civilian and military uses and as initiator in pyrotechnic devices. As a result, lead diazide is not found in concentrations > 0.1% w/w in hardware articles.
Phenolphthalein	77-09-8	No	Phenolphthalein is mainly used as a pH indicator, for example in mixtures and in chemical reagents, and in other pH indicator applications such as colour-changing dyes and in pH-indicator papers. It is also used in pharmaceutical preparations (e.g. laxatives) and in other medicines. As a result, phenolphthalein is not found in concentrations > 0.1% w/w in hardware articles.
Dichromium tris(chromate)	24613-89-6	No	Dichromium tris(chromate) is used as a process chemical in electroplating (chrome plating) and conversion coatings (passivating and anodizing). In the passivation process, the strong oxidative properties of chromates are used to deposit a protective oxide layer of complex chromium compounds on metallic surfaces. The anodizing process is used only for alumunium and increases the thickness of the natural oxide layer on the surface of the aluminium. A sealing process is then used to fill the pores in the aluminium oxide layer. In all of these applications, Dichromium tris(chromate) is not detectable as a substance in the electroplated or conversion coated part.
Lead styphnate	15245-44-0	No	Lead styphnate is an explosive which is used as a primer for small calibre and rifle ammunition and in munition pyrotechnics, powder actuated devices and detonators for civilian use. Due to its explosive properties, lead styphnate is not found in concentrations > 0.1% w/w in hardware articles.
Zirconia Aluminosilicate Refractory Ceramic Fibres	No CAS number(s) provided	Yes	See detailed chemicals guidance in BOMcheck for further information.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
Aluminosilicate Refractory Ceramic Fibres	No CAS number(s) provided	Yes	See detailed chemicals guidance in BOMcheck for further information.
Included in REACH Candidate List on 18 June 2012: Unique ID == EUREACH-0612			
Diboron trioxide	1303-86-2	Yes	See detailed chemicals guidance in BOMcheck for further information.
Lead(II) bis(methanesulfonate)	17570-76-2	No	Lead(II) bis(methanesulfonate) is used as a process chemical in tin-lead electroless and electrolytic plating processes for electronic components. The electroplating process uses the Lead(II) bis(methanesulfonate) to create a metal plating and any surplus process chemicals are removed from the plated article during subsequent washing and cleaning processes. As a result, Lead(II) bis(methanesulfonate) is not detectable as a substance in the electroplated article. The finished plating is not RoHS compliant and so alternative electroplating processes are increasingly replacing the use of Lead(II) bis(methanesulfonate).
1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2	Yes	See detailed chemicals guidance in BOMcheck for further information.
1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4	Yes	See detailed chemicals guidance in BOMcheck for further information.
Formamide	75-12-7	No	Formamide, also known as methanamide, is a clear liquid at room temperature which is miscible with water and has an ammonia-like odor. It is used as an intermediate for the manufacture of pharmaceuticals (e.g. vitamins and pyrimidines) and other chemicals (e.g. hydrogen cyanide, triazoles). It is also used as an intermediate for paper finishing (formamide softens the paper fibres) and as a solvent (e.g. in the production of synthetic leather and inks). Formamide is not present in concentrations > 0.1% w/w in supplied articles.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
1,3,5-tris(oxiran-2-ylmethyl)-1,3,5-triazinane-2,4,6-trione (TGIC)	2451-62-9	No	TGIC is an epoxy compound which is used as a hardener in resins and coatings which are cured by heat treatment. TGIC is mainly used as a hardener for polyester powder coatings which are used to provide protective coatings to a wider range of metal products, from window frames to fridges. The addition rate of the hardener to the coating can be between 4% and 10% and the coating is cured by heat treatment at about 200°C. TGIC is also used in the hardener component in solder mask inks which are used to print the circuit image onto a printed circuit board. The hardener component of the solder mask ink can contain between 25% and 60% TGIC and the solder mask ink is cured by heat treatment at about 150°C. During these heat treatment processes, the TGIC becomes fully cross-linked into the resin or coating to form a solid matrix. As a result, TGIC is not detectable as a substance in the resin or coating in supplied articles.
1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione (B-TGIC)	59653-74-6	No	
4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	90-94-8	No	Michler's Ketone is used as an intermediate to manufacture a wide range of dyes which are then used to manufacture inks and colorants. Most modern manufacturing processes are very tightly controlled and in this case Michler's Ketone is fully reacted during the manufacture of the dye. However, this is not always the case and assessments in Canada have found that when present as a residual impurity in the dye, Michler's Ketone can be detected in concentrations up to 4.5% by weight of the dye. The dye is mixed with other substances to form inks or colorants, and so the percentage of Michler's Ketone which is present in the supplied inks or colorants is very small. Detailed studies of a wide range of ballpoint inks in Germany detected a maximum concentration of Michler's Ketone in the ball point ink of 0.124% by weight of the ink. Detailed studies of printed paper and printed paperboard in Japan detected a maximum concentration of Michler's Ketone in the paper of 0.0012% by weight of the paper. In view of these data, Michler's Ketone is not present in concentrations > 0.1% w/w in supplied articles.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	101-61-1	No	The structural formula for Michler's Base is identical to Michler's Ketone with the exception of substitution of two single bonds to two hydrogen atoms with a double bond to one oxygen atom, located between the two benene rings. Similar to Michler's Ketone, Michler's base is used as an intermediate to manufacture a wide range of dyes which are then used to manufacture inks and colorants. Most modern manufacturing processes are very tightly controlled and in this case Michler's Base is fully reacted during the manufacture of the dye. However, this is not always the case and, similar to Michler's Ketone, it is expected that when present as a residual impurity in the dye, Michler's Base may be detected in concentrations up to 4.5% by weight of the dye. The dye is mixed with other substances to form inks or colorants, and so the percentage of Michler's Base which is present in the supplied inks or colorants is very small. Detailed studies of a wide range of ballpoint inks in Germany detected a maximum concentration of Michler's Ketone in the ball point ink of 0.124% by weight of the ink. Detailed studies of printed paper and printed paperboard in Japan detected a maximum concentration of Michler's Ketone in the paper of 0.0012% by weight of the paper. In view of these data for Michler's Ketone, Michler's Base is not present in concentrations > 0.1% w/w in supplied articles.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
[4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26) [with greater than or equal to 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	2580-56-5	No	Either Michler's Ketone or Michler's Base can be used as an intermediate to manufacture C.I. Basic Blue 26, which is a blue dye. ECHA proposes to add C.I. Basic Blue 26 to the REACH Candidate List only where C.I. Basic Blue 26 contains > 0.1% of Michler's Base or Michler's Ketone as a residual impurity from the manufacturing process. ECHA carried out a survey of dye suppliers in the EU in 2011 and found that < 10% of these companies reported that their C.I. Basic Blue 26 contained > 0.1% of Michler's Base or Michler's Ketone as a residual impurity. When present as an impurity in C.I. Basic Blue 26, Michler's Ketone or Michler's Base may be detected in concentrations up to 4.5% by weight of the C.I. Basic Blue 26. The dye is mixed with other substances to form inks and colorants. The maximum concentration of C.I. Basic Blue 26 dye that would be found in an ink or colorant is about 10%, which in turn will represent considerably less than 1% of the weight of the supplied article. Therefore, the presence of C.I. Basic Blue 26 dye in inks or colorants will not lead to a concentration of more than 0.1% w/w of C.I. Basic Blue 26 in the supplied article, regardless of whether the C.I. Basic Blue 26 does actually contain > 0.1% of Michler's Base or Michler's Ketone as a residual impurity.
a,a-Bis[4-(dimethylamino)phenyl]-4-(phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4) [with greater than or equal to 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	6786-83-0	No	Either Michler's Ketone or Michler's Base can be used as an intermediate to manufacture C.I. Solvent Blue 4, which is also a blue dye. In fact, C.I. Solvent Blue 4 is a derivative of C.I. Basic Blue 26. ECHA proposes to add C.I. Solvent Blue to the REACH Candidate List only where C.I. Solvent Blue 4 contains > 0.1% of Michler's Base or Michler's Ketone as a residual impurity from the manufacturing process. When present as an impurity in C.I. Solvent Blue 4, Michler's Ketone or Michler's Base may be detected in concentrations up to 4.5% by weight of the C.I. Solvent Blue 4. The dye is mixed with other substances to form inks and colorants. The maximum concentration of C.I. Solvent Blue 4 dye that would be found in an ink or colorant is about 10%, which in turn will represent considerably less than 1% of the weight of the supplied article. Therefore, the presence of C.I. Solvent Blue 4 dye in inks or colorants will not lead to a concentration of more than 0.1% w/w of C.I. Solvent Blue 4 in the supplied article, regardless of whether the C.I. Solvent Blue 4 does actually contain > 0.1% of Michler's Base or Michler's Ketone as a residual impurity.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3) [with greater than or equal to 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	548-62-9	No	Either Michler's Ketone or Michler's Base can be used as an intermediate to manufacture C.I. Basic Violet 3. ECHA proposes to add C.I. Basic Violet 3 to the REACH Candidate List only where C.I. Basic Violet 3 contains > 0.1% of Michler's Base or Michler's Ketone as a residual impurity from the manufacturing process. Based on the registrations received by the November 2010 deadline, ECHA estimates that less than 9% of C.I. Basic Violet 3 imported into the EU is expected to > 0.1% of Michler's Base or Michler's Ketone as a residual impurity. When present as an impurity in C.I. Basic Violet 3, Michler's Ketone or Michler's Base may be detected in concentrations up to 4.5% by weight of the C.I. Basic Violet 3. The dye is mixed with other substances to form inks and colorants. The maximum concentration of C.I. Basic Violet 3 dye that would be found in an ink or colorant is about 10%, which in turn will represent considerably less than 1% of the weight of the supplied article. Therefore, the presence of C.I. Basic Violet 3 dye in inks or colorants will not lead to a concentration of more than 0.1% w/w of C.I. Basic Violet 3 in the supplied article, regardless of whether the C.I. Basic Violet 3 does actually contain > 0.1% of Michler's Base or Michler's Ketone as a residual impurity.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol [with greater than or equal to 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	561-41-1	No	Either Michler's Ketone or Michler's Base can be used as an intermediate to manufacture 4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol. ECHA proposes to 4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol to the REACH Candidate List only where 4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol contains > 0.1% of Michler's Base or Michler's Ketone as a residual impurity from the manufacturing process. When present as an impurity in 4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol, Michler's Ketone or Michler's Base may be detected in concentrations up to 4.5% by weight of the 4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol. The dye is mixed with other substances to form inks and colorants. The maximum concentration of 4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol dye that would be found in an ink or colorant is about 10%, which in turn will represent considerably less than 1% of the weight of the supplied article. Therefore, the presence of 4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol dye in inks or colorants will not lead to a concentration of more than 0.1% w/w of 4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol in the supplied article, regardless of whether the 4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol does actually contain > 0.1% of Michler's Base or Michler's Ketone as a residual impurity.
Included in REACH Candidate List on 19 December 2012: Unique ID == EUREACH-1212			
Pyrochlore, antimony lead yellow	8012-00-8	Yes	See detailed chemicals guidance in BOMcheck for further information.
6-methoxy-m-toluidine (p-cresidine)	120-71-8	No	6-methoxy-m-toluidine, also known as p-cresidine, is an azo dye which was previously used in the coloring process for textiles and leather articles. P-cresidine is one of 22 azo dyes which are already restricted under Article 67of the REACH Regulation. Since 2002 the maximum total concentration of any of these 22 azo dyes in leather or textile articles has been restricted to less than 30ppm. As a result, p-cresidine is not found in concentrations > 0.1% w/w in supplied articles for use in hardware and electrical and electronic equipment.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
Hexahydromethylphthalic anhydride [1], Hexahydro-4-methylphthalic anhydride [2], Hexahydro-1-methylphthalic anhydride [3], Hexahydro-3-methylphthalic anhydride [4] [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]	25550-51-0, 19438-60-9, 48122-14-1, 57110-29-9	No	Cyclic acid anhydrides are widely used in the chemical industry as an intermediate to manufacture other substances including polyester resins, alkyd resins and plasticizers for thermoplastic polymers. The alkyd resins are found in paints, varnishes and adhesives (see http://www.phadia.com/ko/3/ImmunoCAP-Allergens/Occupational-Allergens/Allergens/Phthalic-anhydride-/ for details). However, the cyclic acid anhydrides themselves are not found as detectable substances in paints, varnishes and adhesives. Cyclic acid anhydrides are also used as hardening agents / curing agents for epoxy resins and chain cross-linkers for thermoplastic polymers. In all of these applications, the cyclic acid anhydrides are used as an intermediate and they are reacted to form other substances. As a result, cyclic acid anhydrides are not detectable as substances in supplied articles for use in hardware and electrical and electronic equipment.
Cyclohexane-1,2-dicarboxylic anhydride [1], cis-cyclohexane-1,2-dicarboxylic anhydride [2], trans-cyclohexane-1,2-dicarboxylic anhydride [3] [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]	85-42-7, 13149-00-3, 14166-21-3	No	
Dibutyltin dichloride (DBTC)	683-18-1	Yes	See detailed chemicals guidance in BOMcheck for further information.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
Lead bis(tetrafluoroborate)	13814-96-5	No	Lead bis(tetrafluoroborate) is mainly used in electroplating solutions for coating metal objects with lead. It is also used as a curing agent for epoxy resins and as a catalyst in the production of linear polyesters. These applications do not result in lead bis(tetrafluoroborate) being present in concentrations > 0.1% w/w in supplied articles for use in hardware and electrical and electronic equipment.
Lead dinitrate	10099-74-8	Yes	See detailed chemicals guidance in BOMcheck for further information.
Silicic acid, lead salt	11120-22-2	No	Silicic acid, lead salt, also known as lead(2+) silicate, is used in the manufacture of lead crystal glass and ceramics. It becomes part of the glass or ceramic matrix and is not detectable as a substance in concentrations > 0.1% w/w in supplied articles for use in hardware and electrical and electronic equipment.
4-Aminoazobenzene	60-09-3	Yes	See detailed chemicals guidance in BOMcheck for further information.
Lead titanium zirconium oxide	12626-81-2	Yes	See detailed chemicals guidance in BOMcheck for further information.
Lead monoxide (lead oxide)	1317-36-8	No	Lead oxide (lead monoxide) is used as a pigment in artist paints and is known as litharge or massicot. For example, see http://www.naturalpigments.com/detail.asp?PRODUCT_ID=437-59S for detailed information about how to use lead oxide (lead monoxide) as a pigment to make artist oil paints and varnishes. No information has been found to indicate any uses of lead oxide as a pigment in other applications (i.e. other than in artist paints). Lead monoxide is also used as an ingredient in the manufacture of lead batteries, however a more detailed literature review indicates that lead monoxide is not detectable as a substance in the supplied lead battery. Lead monoxide is used in the vulcanization of neoprene or polychloroprene rubber. In this application the lead monoxide becomes cross-linked into the rubber and is not detectable as a substance in the supplied rubber article. Lead monoxide is also used extensively in the manufacture of lead glasses and ceramic glazes as well as in fine dinnerware. In these applications the lead monoxide is converted into a lead silicate and so lead monoxide is not detectable as a substance in the supplied glass or ceramic articles.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
o-Toluidine	95-53-4	No	o-Toluidine, also known as 2-Aminotoluene, is an azo dye which was previously used in the coloring process for textiles and leather articles. 2-Aminotoluene is one of 22 azo dyes which are already restricted under Article 67of the REACH Regulation. Since 2002 the maximum total concentration of any of these 22 azo dyes in leather or textile articles has been restricted to less than 30ppm. As a result, 2-Aminotoluene is not found in concentrations > 0.1% w/w in supplied articles for use in hardware and electrical and electronic equipment.
3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	No	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine , known as Zoldine MS-Plus, is used: • to remove humidity during the spray application of two-component polyurethane systems • for water removal from polyols and pigments The substance is completely reacted during the moisture scavenging process. As a result, the substance is not found in concentrations > 0.1% w/w in supplied articles for use in hardware and electrical and electronic equipment.
Silicic acid (H2Si2O5), 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	Yes	See detailed chemicals guidance in BOMcheck for further information.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
Trilead bis(carbonate)dihydroxide	1319-46-6	No	Basic lead carbonate, also known as white lead, was formerly used as an ingredient for lead paint and a cosmetic called Venetian Ceruse. It was previous used in artist paints because it has an opaque quality and makes a satiny smooth mixture when mixed with oils. These uses are not relevant to supplied articles for use in hardware and electrical and electronic equipment.
Furan	110-00-9	No	Furan is used primarily as an intermediate in the synthesis and production of tetrahydrofuran, pyrrole, and thiophene. Furan is also used in the formation of lacquers, as a solvent for resins, and in the production of agricultural chemicals, stabilizers, and pharmaceuticals. None of these uses are relevant to articles which are supplied for use in hardware and electrical and electronic equipment.
N,N-dimethylformamide	68-12-2	Yes	See detailed chemicals guidance in BOMcheck for further information.
4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated [covering well-defined substances and UVCB substances, polymers and homologues]	No CAS number(s) provided	No	About 50% of 4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated (also known as 4-tert-octylphenol ethoxylates) are used in paints, varnishes and adhesives. The typical concentration of 4-tert-octylphenol ethoxylates in these mixtures is between 0 and 10% w/w, but some specific paint products can contain up to 30% w/w of 4-tert-octylphenol ethoxylates. When the paint, varnish or adhesive is applied to the article, it results in considerably less than 0.1% w/w of 4-tert-octylphenol ethoxylates in supplied articles in hardware and electrical and electronic equipment. Other uses of 4-tert-octylphenol ethoxylates include: • As a degreasing agent • As an emulsifier in finishing agents for covering leather and textiles with a thin polymer film for improved surface finish • As an emulsifier in pesticides to facilitate easier spraying of the pesticide These applications of 4-tert-octylphenol ethoxylates are not relevant to supplied articles for use in hardware and electrical and electronic equipment.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
4-Nonylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof]	No CAS number(s) provided	No	From January 2005, nonylphenols are banned from use as a substance or preparation in concentrations > 0.1% w/w in the EU in textiles and leather processing. However, 4-nonylphenols are still used in the production of textiles outside the EU as detergents, dispersing agents for dyeing, emulsifiers and spinning lubricants. Imported textile articles (such as towels, t-shirts, overalls and underwear) can typically contain 4-nonylphenols at concentrations ranging between 1 mg/kg and 1300 mg/kg (0.13% w/w). In one example, a t-shirt with a plastisol print contained 27000 mg/kg (2.7% w/w) of nonylphenol ethoxylates. When the textile articles are washed the nonylphenol ethoxylates are released into the sewerage system. But this application of 4-nonylphenols is not relevant to supplied articles in hardware and electrical and electronic equipment. Nonylphenol is used in certain homogenous materials in batteries but this does not result in the nonylphenol being present in a concentration > 0.1% w/w of the finished battery. Nonylphenol ethoxylates (and possibly also 4-nonylphenols) are also used for dry cleaning, car care products and other cleaning agents. These applications of 4-nonylphenols are also not relevant to supplied articles in hardware and electrical and electronic equipment. Nonylphenol ethoxylates (and possibly also 4-nonylphenols) are also used in paints, printing inks and water-based adhesives where they are typically found in concentrations of between 0.6% and 3% w/w. When the paint, ink or adhesive is applied to the article, it results in considerably less than 0.1% w/w of nonylphenol ethoxylates supplied articles for use in hardware and electrical and electronic equipment.
4,4'-methylenedi-o-toluidine	838-88-0	No	4,4'-methylenedi-o-toluidine is used as a building block to manufacture other chemical (e.g. Diphenylmethanes) and as a reagent for high-performance polymer research. These applications are not relevant to the electrotechnical industry.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
Diethyl sulphate	64-67-5	No	Diethyl sulfate is an important chemical intermediate to make products for coatings, pharmaceuticals, personal care products, detergents and textiles. Diethyl sulfate is used as an alkylating agent to prepare ethyl derivatives of phenols, amines, and thiols. These applications are not relevant to the electrotechnical industry.
Dimethyl sulphate	77-78-1	No	Dimethyl sulphate is a strong methylating agent which is used as a key ingredient in the manufacture of many household and commercial chemical products. It is best known as a reagent for the methylation of phenols, amines, and thiols. These applications are not relevant to the electrotechnical industry.
Lead oxide sulfate	12036-76-9	Yes	See detailed chemicals guidance in BOMcheck for further information.
Lead titanium trioxide	12060-00-3	Yes	See detailed chemicals guidance in BOMcheck for further information.
Acetic acid, lead salt, basic	51404-69-4	No	Acetic acid, lead salt, basic (also known as basic lead acetate) is used as a reagent to make other lead compounds and as a fixative for some dyes. It was previously used in cosmetics and is still used today in men's hair coloring products. These applications are not relevant to the electrotechnical industry.
[Phthalato(2-)]dioxotrilead	69011-06-9	Yes	See detailed chemicals guidance in BOMcheck for further information.
Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE)	1163-19-5	Yes	See detailed chemicals guidance in BOMcheck for further information.
N-methylacetamide	79-16-3	No	N-Methylacetamide is used as a chemical intermediate in the production of other chemicals for use in wide variety of applications, including life sciences materials, agrochemicals, electronic materials and construction materials. N-Methylacetamide is also used as a laboratory reagent. These uses are not relevant to supplied articles for use in hardware and electrical and electronic equipment.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
Dinoseb (6-sec-butyl-2,4-dinitrophenol)	88-85-7	No	Dinoseb is a contact herbicide in the dinitrophenol family which was used for weed control in cereals, undersown cereals, seedling lucerne and peas. Dinoseb was approved for use in the United States based on safety data from Industrial Bio-Test Laboratories and then subsequently withdrawn from the market in 1986 due to high incidences of birth defects. It may still be used as an herbicide in other parts of the world today. These applications are not relevant to the electrotechnical industry.
1,2-Diethoxyethane	629-14-1	Yes	See detailed chemicals guidance in BOMcheck for further information.
Tetralead trioxide sulphate	12202-17-4	Yes	See detailed chemicals guidance in BOMcheck for further information.
N-pentyl-isopentylphthalate	776297-69-9	Yes	See detailed chemicals guidance in BOMcheck for further information.
Dioxobis(stearato)trilead	12578-12-0	Yes	See detailed chemicals guidance in BOMcheck for further information.
Tetraethyllead	78-00-2	No	Tetraethyl lead was previously used as an additive to gasoline, wherein it served as an effective antiknock agent and prevented exhaust valve and seat wear. This use is not relevant to articles which are supplied for use in hardware and electrical and electronic equipment.
Pentalead tetraoxide sulphate	12065-90-6	Yes	See detailed chemicals guidance in BOMcheck for further information.
Pentacosafluorotridecanoic acid	72629-94-8	No	PFCAs are used to manufacture fluoropolymers and fluorotelomers. PFCAs are also used as surfactants and wetting agents in paints, inks and coatings. However, these uses do not result in PFCAs being present in concentrations > 0.1% w/w of the article, for articles which are supplied for use in hardware and electrical and electronic equipment.
Tricosafluorododecanoic acid	307-55-1	No	
Henicosafluoroundecanoic acid	2058-94-8	No	
Heptacosafluorotetradecanoic acid	376-06-7	No	

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
1-bromopropane (n-propyl bromide)	106-94-5	No	1-Bromopropane (1-BP) is a solvent which is used to dissolve fats, waxes and resins. It is a liquid at room temperature and evaporates during use. Two of its main uses are in degreasing agents (for example, vapor and immersion degreasing operations to clean electronics and metal surfaces) and in spray adhesives. 1-BP is currently used in the furniture industry as a solvent for adhesives used in constructing foam cushions. The dry cleaning industry, among others, has considered using 1-BP as solvent in place of other ozone depleting solvents. In all of these applications, 1-BP evaporates during use and so is not present in supplied articles for use in hardware and electrical and electronic equipment.
Methoxyacetic acid	625-45-6	No	Methoxy acetic acid, also known as MAA, is used in detergents and industrial cleaning agents, for descaling of ovens, for cleaning wheels and tyres and industrial equipment. These uses are not relevant to supplied articles for use in hardware and electrical and electronic equipment.
4-methyl-m-phenylenediamine (toluene-2,4-diamine)	95-80-7	No	4-methyl-m-phenylenediamine, also known as toluene-2,4-diamine, is used primarily as an intermediate in the production of toluene diisocyanate, which is then used to manufacture polyurethane. It is also used as an intermediate in the synthesis of direct oxidation black, a dye for hair and furs, and to prepare dyes for leather. It is also used as an intermediate in the preparation of a wide range of other chemicals impact-resistant resins, polyimides with superior wire-coating properties, benzimidazolethiols (antioxidants), hydraulic fluids, urethane foams, fungicide stabilizers, and sensitizers for explosives. None of these uses are relevant to supplied articles for use in hardware and electrical and electronic equipment.
Methyloxirane (Propylene oxide)	75-56-9	No	Propylene oxide is used as building block to synthesize a wide range of chemicals. Between 60 and 70% of all propylene oxide is converted to polyether polyols for the production of polyurethane plastics. About 20% of propylene oxide is hydrolyzed into propylene glycol. Other major products are polypropylene glycol, propylene glycol ethers, and propylene carbonate. These applications are not relevant to the electrotechnical industry.
Trilead dioxide phosphonate	12141-20-7	Yes	See detailed chemicals guidance in BOMcheck for further information.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
o-aminoazotoluene	97-56-3	No	o-aminoazotoluene is an azo dye which was previously used in the coloring process for textiles and leather articles. o-aminoazotoluene is one of 22 azo dyes which are already restricted under Article 67of the REACH Regulation. Since 2002 the maximum total concentration of any of these 22 azo dyes in leather or textile articles has been restricted to less than 30ppm. As a result, o-aminoazotoluene is not found in concentrations > 0.1% w/w in supplied articles for use in hardware and electrical and electronic equipment.
1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	Yes	See detailed chemicals guidance in BOMcheck for further information.
4,4'-oxydianiline and its salts	101-80-4	No	4,4'-oxydianiline is used as an intermediate in the production of a wide variety of polymer resins. The primary use lies in the production of polyimide and poly(ester)imide resins. Other applications of 4,4'-oxydianiline include the production of poly(amide)imide resins, as an intermediate in the manufacture of epoxy resins and adhesives, and in the production of aromatic polyether imides. These applications are not relevant to the electrotechnical industry.
Orange lead (lead tetroxide)	1314-41-6	Yes	See detailed chemicals guidance in BOMcheck for further information.
Biphenyl-4-ylamine	92-67-1	No	Biphenyl-4-ylamine is an azo dye which was previously used in the coloring process for textiles and leather articles. Biphenyl-4-ylamine is one of 22 azo dyes which are already restricted under Article 67of the REACH Regulation. Since 2002 the maximum total concentration of any of these 22 azo dyes in leather or textile articles has been restricted to less than 30ppm. As a result, Biphenyl-4-ylamine is not found in concentrations > 0.1% w/w in supplied articles for use in hardware and electrical and electronic equipment.
Diisopentylphthalate	605-50-5	Yes	See detailed chemicals guidance in BOMcheck for further information.
Fatty acids, C16-18, lead salts	91031-62-8	Yes	See detailed chemicals guidance in BOMcheck for further information.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3	No	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide)), also known as ADCA, decomposes at between 190°C and 230°C to release N_2, CO, CO_2 and NH_3 gasses. ADCA is mainly used as a blowing agent in the rubber and plastics industry, for example to manufacture sponge rubber or expanded plastics. The ADCA decomposes during the heating process and so is not detectable as a substance in the supplied rubber or plastic article. ADCA is also used as a bleaching agent and aging agent, for example in photography. These applications are not relevant to the electrotechnical industry.
Sulfurous acid, lead salt, dibasic	62229-08-7	Yes	See detailed chemicals guidance in BOMcheck for further information.
Lead cyanamidate	20837-86-9	Yes	See detailed chemicals guidance in BOMcheck for further information.
Included in REACH Candidate List on 20 June 2013: Unique ID == EUREACH-0613			
Cadmium	7440-43-9	Yes	See detailed chemicals guidance in BOMcheck for further information.
Cadmium oxide	1306-19-0	Yes	See detailed chemicals guidance in BOMcheck for further information.
Pentadecafluorooctanoic acid (PFOA)	335-67-1	Yes	See detailed chemicals guidance in BOMcheck for further information.
Ammonium pentadecafluorooctanoate (APFO)	3825-26-1	Yes	See detailed chemicals guidance in BOMcheck for further information.
Dipentyl phthalate (DPP)	131-18-0	Yes	See detailed chemicals guidance in BOMcheck for further information.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
4-Nonylphenol, branched and linear, ethoxylated [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, ethoxylated covering UVCB- and well-defined substances, polymers and homologues, which include any of the individual isomers and/or combinations thereof]	No CAS number(s) provided	Yes	See detailed chemicals guidance in BOMcheck for further information.
Included in REACH Candidate List on 16 December 2013: Unique ID == EUREACH-1213			
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	Yes	See detailed chemicals guidance in BOMcheck for further information.
Trixylyl phosphate	25155-23-1	Yes	See detailed chemicals guidance in BOMcheck for further information.
Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	573-58-0	Yes	See detailed chemicals guidance in BOMcheck for further information.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
Dihexyl phthalate	84-75-3	Yes	See detailed chemicals guidance in BOMcheck for further information.
Imidazolidine-2-thione; (2-imidazoline-2-thiol)	96-45-7	Yes	See detailed chemicals guidance in BOMcheck for further information.
Cadmium sulphide	1306-23-6	Yes	See detailed chemicals guidance in BOMcheck for further information.
Lead di(acetate)	301-04-2	No	Lead di(acetate), also known as lead(II) acetate, is used as a reagent to make other lead compounds, as a fixative for some dyes and in detector paper for hydrogen sulfide. Although banned from use in hair dyes in the EU, it is still used in hair dyes in the US provided the lead content is < 0.6%. Lead di(acetate) is also used as a drier in artist paints and varnishes and was previously used as a sweetener known as sugar of lead. These applications are not relevant to articles supplied in the electrotechnical industry.
Included in REACH Candidate List on 16 June 2014: Unique ID == EUREACH-0614			
1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	Yes	See detailed chemicals guidance in BOMcheck for further information.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
Cadmium chloride	10108-64-2	No	Cadmium chloride is used as raw material for synthesis of other cadmium compounds, as an ingredient in electroplating and electrogalvanizing baths for cadmium plating, as an ingredient for the manufacture of CdTe-based solar cells and vacuum tubes, and as a laboratory reagent. Cadmium chloride can be used as raw material for production of “cadmium soaps”, which are used as PVC stabilizers. Cadmium chloride can be used as an intermediate in the production of cadmium-containing stabilizers and pigments, such as cadmium sulphide. Cadmium chloride has also been used as an ingredient in photography, photocopying, dyeing and calico printing (with thiosulphate). In all of these applications, the cadmium chloride is used as a raw material or an ingredient and becomes reacted or converted during use to form other substances. Further investigation was carried out on whether trace amounts of un-reacted cadmium chloride could be found when the substance is used in the production of cadmium-containing stabilizers and pigments, such as cadmium sulphide. The investigation noted that cadmium chloride is hygroscopic and will undergo hydrolysis in contact with water. Normal working conditions for incorporating the cadmium-containing stabilizers and pigments into plastic resin pellets, and subsequent extrusion of the plastic to form articles, include high temperature heating (for example 200°C to 300°C) and contact with moisture and oxygen. In these conditions any residual cadmium chloride is expected to fully decompose.
Sodium perborate; perboric acid, sodium salt	No CAS number(s) provided	No	Sodium perborate; perboric acid, sodium salt is used in chemical preparations mainly as a bleaching agent in laundry detergents and machine dishwashing products, and also in cleaning products and in cosmetic preparations. Sodium perborate; perboric acid, sodium salt is not used in the manufacture of articles in the electrotechnical industry and is not found as a detectable substance in supplied articles in the electrotechnical industry.
Sodium peroxometaborate	7632-04-4	No	Sodium peroxometaborate is used in chemical preparations mainly as a bleaching agent in laundry detergents and machine dishwashing products, and also in cleaning products and in cosmetic preparations. Sodium peroxometaborate is not used in the manufacture of articles in the electrotechnical industry and is not found as a detectable substance in supplied articles in the electrotechnical industry.
Included in REACH Candidate List on 17 December 2014: Unique ID == EUREACH-1214			

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
2-Benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7	Yes	See detailed chemicals guidance in BOMcheck for further information.
2-(2H-Benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	Yes	See detailed chemicals guidance in BOMcheck for further information.
2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	15571-58-1	Yes	See detailed chemicals guidance in BOMcheck for further information.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
Cadmium fluoride	7790-79-6	No	There is very limited information on the actual use of cadmium fluoride in industry today. The main use of cadmium fluoride is probably as a research chemical. Cadmium fluoride is a fluorescent material and patents from the 1950's indicate it may previously have been used in certain phosphors for luminescent screens in cathode ray tubes. Feedback from the VT 62474 experts indicated that such CRT devices were not actually produced and are currently not being produced today. New potential uses for cadmium fluoride are cited in several patents covering a broad range of applications, however feedback from VT 62474 experts indicated that none of these applications are being used in product designs today or are likely to be used in product designs in the near future. • A US Patent issued 2012 highlights the potential use of cadmium fluoride for improvement of CdS/CdTe photovoltaic cells (solar cells) by incorporation of a nano-thin layer of cadmium fluoride in the cell material. • A US Patent issued 1996 covers incorporation of a cadmium fluoride crystal in an optically storing "Micro information storage system". • A US Patent issued 1985 covers use of a phosphor layer of cadmium fluoride in a direct current electroluminescent device • A US Patent issued 1983 covers use of cadmium fluoride as a constituent of a dielectric ceramic containing 2.5-12% cadmium fluoride. • A US Patent issued 1980 describes an electroluminescent device for emitting green light comprising a conducting cadmium fluoride crystal. Cadmium fluoride was previously used as an active component in fluxes for soldering aluminum, however this use is now restricted under paragraph 8 of Entry 23 of the substance restrictions in REACH Annex XVII. The fluxing agent typically contained 2 – 7% cadmium fluoride and so the concentration of cadmium fluoride in the soldered aluminum article is less than 0.1%

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
Cadmium sulphate	10124-36-4, 31119-53-6	No	The main use of cadmium sulphate is as an intermediate for the production of other inorganic cadmium substances and as a laboratory reagent. Cadmium sulphate is also used as a process chemical in electrolytic plating processes for cadmium plating of parts. The electroplating process uses the cadmium sulphate to create the metal plating and any surplus process chemicals are removed from the plated article during subsequent washing and cleaning processes. As a result, cadmium sulphate is not detectable as a substance in the electroplated article. Cadmium sulphate is also used for restoring old lead acid batteries. A 5-10% cadmium sulphate solution can be added to badly sulphated and disused batteries to rejuvenate them (see http://www.sovereign-omega.co.uk/Datasheets/Omega908-1.pdf, http://www.inoxmx.com/inox/mx2-battery-conditioner/ and http://www.indianriver.cc/Inox/Forms/MSDS%20INOX-MX2.pdf). The recommended addition rate for a typical 12v car battery weighing 11kg is about 15 ml (about 20gm) http://www.inoxmx.com/uses/mx2-applications-and-uses/. Assuming that the solution contained 10% cadmium sulphate, the treated battery would contain <0.02% cadmium sulphate by weight of the battery.
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)	No CAS number(s) provided	Yes	See detailed chemicals guidance in BOMcheck for further information.
Included in REACH Candidate List on 15 June 2015: Unique ID == EUREACH-0615			

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
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 (EC No. 201-559-5)	68515-51-5; 68648-93-1	Yes	See detailed chemicals guidance in BOMcheck for further information.
5-sec-butyl-2-(2,4-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [1], 5-sec-butyl-2-(4,6-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [2] [covering any of the individual isomers of [1] and [2] or any combination thereof]	No CAS numbers provided	No	This substance is a colorless to pale yellow clear liquid which is sold under the trade name Karanal. It is used in applications such as fine fragrances and in soaps, detergents, shampoos and fabric rinse conditioners. The substance has a powerful and radiant dry, woody amber note. These applications are not relevant to the electrotechnical industry.
Included in REACH Candidate List on 17 December 2015: Unique ID == EUREACH-1215			
Nitrobenzene	98-95-3	No	Nitrobenzene is a yellowish, oily liquid. The main use of nitrobenzene is as an ingredient in the manufacturing process to manufacture aniline. It is also used as an ingredient in the manufacturing process for lubricating oils, dyes, drugs, pesticides and synthetic rubber. Nitrobenzene liquid was previously used in Kerr Cells to provide high-speed modulation of light. However the invention of the Pockels cell in the 1950's replaced the Kerr Cell in all but the most specialist applications. Pockels crystals can be grown in very convenient sizes and optical properties. Kerr Cells containing nitrobenzene may still be manufactured as custom components for use in specialist applications which require very high speed modulation of light, such as laboratory equipment to measure the speed of light and specialist equipment for high-speed cinematography. However, these custom part applications are not relevant to the electrotechnical industry.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
Perfluorononan-1-oic-acid and its sodium and ammonium salts	375-95-1, 21049-39-8, 4149-60-4	Yes	See detailed chemicals guidance in BOMcheck for further information.
1,3-propanesultone	1120-71-4	Yes	See detailed chemicals guidance in BOMcheck for further information.
2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1	Yes	See detailed chemicals guidance in BOMcheck for further information.
2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3	Yes	See detailed chemicals guidance in BOMcheck for further information
Included in REACH Candidate List on 20 June 2016: Unique ID == EUREACH-0616			
Benzo[def]chrysene	50-32-8	Yes	See detailed chemicals guidance in BOMcheck for further information.
Included in REACH Candidate List on 12 January 2017: Unique ID == EUREACH-0117			
4,4'-isopropylidenediphenol [Bisphenol A; BPA]	80-05-7	Yes	See detailed chemicals guidance in BOMcheck for further information
Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	3108-42-7, 335-76-2, 3830-45-3	Yes	See detailed chemicals guidance in BOMcheck for further information

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
4-heptylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 7 covalently bound predominantly in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof]	No CAS numbers provided	No	This group of substances is abbreviated to 4-HPbl. The substances in this group are used as intermediates to manufacture polymers which are used in lubricant additives such as corrosion inhibitors, metal deactivators and detergents. 4-HPbl substances belong to a group of structurally similar alkylphenols monoalkylated predominantly in 4-position with different alkyl chain lengths. Other structurally similar alkylphenols monoalkylated include the REACH Candidate List substances 4-Nonylphenol, branched and linear […] and 4-(1,1,3,3-tetramethylbutyl)phenol. Neither of these REACH Candidate List substances is found in articles in the electrotechnical industry in concentrations > 0.1% w/w of the article. The ECHA dossier mentions phenol, heptyl derivs which is used as an intermediate to manufacture polymer materials which are usually used in lubricant additives. The ECHA dossier notes that the residual content of unreacted phenol, heptyl derivs. in the polymer material is well below 0.1%.
p-(1,1-dimethylpropyl)phenol	80-46-6	No	p-(1,1-dimethylpropyl)phenol is used as an intermediate to manufacture perfumes and fragrances and to manufacture phenolic resins and other polymers. There are no known uses of p-(1,1-dimethylpropyl)phenol by itself or as an un-reacted component of a preparation. p-(1,1-dimethylpropyl)phenol can be considered as part of a group of alkylphenols with a linear or branched alkylchain in para-position. The substances differ in the length of the alkylchain and the degree of branching. Substances in this group include the REACH Candidate List substances 4-Nonylphenol, branched and linear […] and 4-(1,1,3,3-tetramethylbutyl)phenol. Neither of these REACH Candidate List substances is found in articles in the electrotechnical industry in concentrations > 0.1% w/w of the article.
Included in REACH Candidate List on 7 July 2017 Unique ID == EUREACH-0717			

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
Perfluorohexane-1-sulphonic acid and its salts (PFHxS)	No CAS numbers provided	Yes	See detailed chemicals guidance in BOMcheck for further information
Included in REACH Candidate List on 15 January 2018 Unique ID == EUREACH-0118			
Benz[a]anthracene	56-55-3, 1718-53-2	Yes	See detailed chemicals guidance in BOMcheck for further information
Cadmium carbonate	513-78-0	No	Cadmium carbonate is used in the manufacture of heat stabilizers which are used in plastics. However, in this application the cadmium carbonate is converted into cadmium oxide. Cadmium carbonate is used as an intermediate substance for the manufacture of other inorganic cadmium compounds and for the manufacture of glass, porcelain and ceramic products. Cadmium carbonate is also used as an intermediate to manufacture pigments and in the manufacture of NiCd batteries. In all of these applications, the cadmium carbonate is converted into other cadmium salts and so cadmium carbonate is not detectable as a substance in the supplied article. Cadmium carbonate is also used as a pH regulator and in water treatment products, however neither of these uses are relevant to supplied articles.
Cadmium hydroxide	21041-95-2	Yes	See detailed chemicals guidance in BOMcheck for further information
Cadmium nitrate	10022-68-1, 10325-94-7	No	Cadmium nitrate is used as an intermediate substance for the manufacture of other inorganic cadmium compounds and for the manufacture of glass, porcelain and ceramic products. Cadmium nitrate is also used as an intermediate to manufacture pigments, stabilizers and heat resistant polymers and in the manufacture of NiCd batteries. In all of these applications, the cadmium nitrate is converted into other cadmium salts and so cadmium nitrate is not detectable as a substance in the supplied article.
Chrysene	218-01-9, 1719-03-5	Yes	See detailed chemicals guidance in BOMcheck for further information

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
1,6,7,8,9,14,15,16,17,17,18,18-Dodecachloropentacyclo[12.2.1.16,9.02,13.05,10]octadeca-7,15-diene ("Dechlorane Plus"TM) [covering any of its individual anti- and syn-isomers or any combination thereof]	No CAS number(s) provided	Yes	See detailed chemicals guidance in BOMcheck for further information
Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP)[with greater than or equal to 0.1% w/w 4-heptylphenol, branched and linear (4-HPbl)]	No CAS number(s) provided	No	RP-HP is a reaction product and is an SVHC only when it contains ≥0.1% w/w of 4-heptylphenol, branched and linear. In other words, RP-HP is an SVHC only when there is ≥0.1% w/w of un-reacted 4-heptylphenol, branched and linear. Modern manufacturing processes normally result in less than 1% unreacted substances. RP-HP is used in the formulation of lubricant additives, lubricants and greases. The maximum concentration of RP-HP in these lubricants is 2.5% w/w, the typical concentration of RP-HP in the lubricants is normally about 0.5% w/w. In a worst-case scenario where the RP-HP contains 1% unreacted 4-heptylphenol, branched and linear and the lubricant contains a maximum RP-HP addition rate of 2.5%, this would still result in less than 0.025% of the SVHC in the lubricant. Furthermore, when 4-heptylphenol, branched and linear was added to the REACH Candidate List in January 2017, the screening carried out by IEC 62474 identified that 4-heptylphenol, branched and linear is not found in articles in the electrotechnical industry in concentrations > 0.1% w/w of the article.
Included in REACH Candidate List on 27 June 2018 Unique ID == EUREACH-0618			
Benzo[ghi]perylene	191-24-2	Yes	See detailed chemicals guidance in BOMcheck for further information
Octamethylcyclotetrasiloxane (D4)	556-67-2	Yes	See detailed chemicals guidance in BOMcheck for further information
Decamethylcyclopentasiloxane (D5)	541-02-6	Yes	See detailed chemicals guidance in BOMcheck for further information

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
Dodecamethylcyclohexasiloxane (D6)	540-97-6	Yes	See detailed chemicals guidance in BOMcheck for further information
Terphenyl hydrogenated	61788-32-7	Yes	See detailed chemicals guidance in BOMcheck for further information
Disodium octaborate	12008-41-2	Yes	See detailed chemicals guidance in BOMcheck for further information
Lead	7439-92-1	Yes	See detailed chemicals guidance in BOMcheck for further information
Dicyclohexyl phthalate (DCHP)	84-61-7	Yes	See detailed chemicals guidance in BOMcheck for further information
Ethylenediamine (EDA)	107-15-3	No	The main use of Ethylenediamine (EDA) is as an ingredient to manufacture other chemicals. The EDA is reacted in the manufacturing process and is not present at detectable levels in the end-use chemical products. EDA is also used as a curing agent for epoxy resins, urea-based resins and phenolic resins. As a curing agent, EDA is reacted and is not present at detectable levels in the cured resin.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
Benzene-1,2,4-tricarboxylic acid 1,2-anhydride (trimellitic anhydride, TMA)	552-30-7	No	Benzene-1,2,4-tricarboxylic acid 1,2-anhydride (trimellitic anhydride), known as TMA, is mainly used in the manufacture of esters and polymers and as a laboratory chemical. The main use of TMA is as an intermediate in the manufacture of plasticizers for PVC resins. TMA is also used as an intermediate to manufacture polyester resins for powder coatings. The ECHA dossier confirms any polymer manufactured using TMA will not contain any TMA in the finished article. TMA reacts in polymerisation processes or in the production processes to make (poly) esters and will not be present in the finished article. Even in case an unexpected residue of TMA would be present, TMA hydrolyses very quickly to trimellitic acid upon contact with water in air. In 2002 approximately 100,000 metric tonnes/year of TMA were produced worldwide, the majority of which (65,000 metric tonnes/year) were produced in the U.S. Most of the TMA produced (65%) was used as an intermediated to manufacture plasticizers for PVC resins, while smaller amounts (30%) were used as a reactant in wire and cable insulation enamels and polyester resins for powder coatings. The remaining 5% of U.S. production was used for a variety of purposes including as an epoxy curing agent, textile sizing agent, rubber curing accelerator, electrostatic toner binder, and vinyl cross-link agent. TMA is used as an intermediated in the manufacture of plasticizers, that are in turn compounded with PVC to make flexible plastic products such as automotive dashboards and coatings for electrical wire and cable. TMA is also used as an intermediate to manufacture polyester resin products used in military, industrial and aerospace applications. Around 2-10% TMA is typically used in the manufacture of epoxy resin and surface coating systems. In all of these applications the TMA becomes fully reacted and is not detectable as a substance in the finished article. There are no known uses of TMA by itself or as an un-reacted component of a preparation.
Included in REACH Candidate List on 15 January 2019 Unique ID == EUREACH-0119			
Benzo[k]fluoranthene	207-08-9	Yes	See detailed chemicals guidance in BOMcheck for further information
Fluoranthene	206-44-0, 93951-69-0	Yes	See detailed chemicals guidance in BOMcheck for further information
Phenanthrene	85-01-8	Yes	See detailed chemicals guidance in BOMcheck for further information

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
Pyrene	129-00-0, 1718-52-1	Yes	See detailed chemicals guidance in BOMcheck for further information
2,2-bis(4'-hydroxyphenyl)-4-methylpentane	6807-17-6	Yes	See detailed chemicals guidance in BOMcheck for further information
1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one [3-benzylidene camphor; 3-BC]	15087-24-8	No	The substance is commonly known as 3-benzylidene camphor or 3-MBC. 3-MBC is a chemical UV filter which is used to provide UV protection in sunscreen lotions, sunblocks, hair care products and other cosmetic products claiming a Sun Protection Factor (SPF). 3-MBC is listed in the REGULATION (EC) No 1223/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 30 November 2009 on cosmetic products, in Annex VI: List of UV-filters allowed in cosmetic products with a maximum concentration in ready for use preparations of 2 %. These applications are not relevant to the electrotechnical industry.
Included in REACH Candidate List on 16 July 2019 Unique ID == EUREACH-0719			
Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with greater than or equal to 0.1% w/w of 4-nonylphenol, branched and linear (4-NP)	No CAS number(s) provided	Yes	See detailed chemicals guidance in BOMcheck for further information

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionic acid, its salts and its acyl halides [covering any of their individual isomers and combinations thereof]	No CAS number(s) provided	No	This group of substances is known as HFPO-DA and includes the following four substances: • Ammonium 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propanoate (FRD-902) • 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propanoic acid (FRD-903) • Potassium 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propanoate • 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propanoyl fluoride HFPO-DA are structurally similar to Perfluorooctanoic acid (PFOA). FRD-902, and other substances in this group, are used as replacements for PFOA for the manufacturing of fluoropolymers such as Teflon, PTFE (polytetrafluoroethylene) and FEP (fluorinated ethylene propylenene. BOMcheck has received correspondence from a Regulatory Affairs Manager at Chemours Canada which confirmed that • The chemical process to manufacture HFPO-DA is patented and the patent is owned by Chemours. • Chemours licenses the patented processing technology to two known third parties and is not aware of any other company that manufactures HFPO-DA. • As part of the EPA consent order, Chemours and all licensed third parties ensure that the residual content of HFPO-DA is less than 200 ppb in any product made using HFPO-DA. This information confirms that HFPO-DA is not present in supplied articles in concentrations greater than 0.1% by weight of the supplied article.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
2-methoxyethyl acetate	110-49-6	No	2-methoxyethyl acetate (also known as EGMEA) is not registered under REACH but may be used in low quantities primarily as a reaction solvent or process chemical in a wide variety of manufacturing processes. It may be used as a reaction solvent for gums, resins, waxes, oils, greases, lacquers, paints, inks, adhesives and sealants. The typical concentration of EGMEA in these applications is 1 – 5%. The concentration of EGMEA is always less than 10% of the printing inks, sealants, adhesives, etc which in turn will represent considerably less than 1% of the weight of the supplied article. Therefore, the presence of EGMEA in printing inks, sealants, adhesives, etc will not lead to a concentration of more than 0.1% w/w of EGMEA in the supplied article. EGMEA many also be used in the manufacture of semiconductors, textile printing and photographic films. In these applications the EGMEA becomes fully reacted an is not detectable as a substance in the supplied article. Unlike other glycol ethers which are already included in the REACH Candidate List, EGMEA is not used as a solvent in battery electrolytes for sealed lithium ion batteries.
4-tert-butylphenol	98-54-4	No	4-tert-butylphenol is used as an intermediate to manufacture polymers and phenolic/epoxy resins. The substances can be used as a chain regulator in polycarbonate production to modify the molecular weight of the polycarbonate. However, the residual level of 4-tert-butylphenol in the polycarbonate is below 100ppm (0.01%). There are no known uses of 4-tert-butylphenol by itself or as an un-reacted component of a preparation. 4-tert-butylphenol can be considered as part of a group of alkylphenols with a linear or branched alkylchain in para-position. The substances differ in the length of the alkylchain and the degree of branching. Substances in this group include the REACH Candidate List substances 4-Nonylphenol, branched and linear […] and 4-(1,1,3,3-tetramethylbutyl)phenol. Neither of these REACH Candidate List substances is found in articles in the electrotechnical industry in concentrations > 0.1% w/w of the article.
Included in REACH Candidate List on 16 January 2020 Unique ID == EUREACH-0120			
Diisohexyl phthalate	71850-09-4	Yes	See detailed chemicals guidance in BOMcheck for further information

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
Perfluorobutane sulfonic acid (PFBS) and its salts	No CAS number(s) provided	Yes	See detailed chemicals guidance in BOMcheck for further information

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1	No	2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone is mainly used in the manufacture of inks and surface coatings based on acrylates which are polymerised by exposure to UV radiation. When exposed to UV radiation at the correct wavelength, the substance absorbs the radiation and undergoes a photoreaction which is very efficient at producing reactive free radicals which then lead to very fast curing of the acrylate polymers. The substance is classed as a type I photoinitiator and undergoes homolytic cleavage upon absorption of UV light to produce free radicals. As a type I photoinitiator, the substance is used in very fast curing applications including high-speed printing inks such as flexo, offset litho and UV ink jet. It is used to assist the UV curing process for inks, toners, adhesives, resins, paints and coatings, solder masks, etch resists and printing plates. The substance has a yellowing effect over time and so is not likely to be used in clear coatings. The typical addition rate for this substance in the coatings, adhesives and inks is 1-10 % before the UV curing process is carried out. Industry sources indicate that the efficiency of homolytic cleavage during the UV curing process is typically between 95% to 99% (less than 95% homolytic cleavage would affect the chemical properties of the ink or surface coating and likely result in quality issues with the coated article). Taking account of the weight of the article that the coating, adhesive, ink etc is applied to, even in a simple article the concentration of the substance in the coated article will be < 0.1% in the vast majority of cases even before UV curing. After curing, in a worst case scenario where the addition rate in the coating is 10% and the efficiency of the UV curing process is 95%, this would result in 0.5% of residual substance in the coating at the homogenous material level. The coating would need to weigh more than 20% of the total weight of the coated article for the substance to be present > 0.1% by weight in the coated article. In industry today, there are no practical applications where inks and coatings will represent more than 20% by weight of the coated article. Therefore, this substance will not be present in concentrations > 0.1% by weight in supplied articles.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	71868-10-5	No	2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one is also mainly used in the manufacture of inks and surface coatings based on acrylates which are polymerised by exposure to UV radiation. When exposed to UV radiation, the substance absorbs the radiation and undergoes a photoreaction which is very efficient at producing reactive free radicals which then lead to very fast curing of the acrylate polymers. The substance is classed as a type I photoinitiator and undergoes homolytic cleavage upon absorption of UV light to produce free radicals. As a type I photoinitiator, the substance is used in very fast curing applications including high-speed printing inks such as flexo, offset litho and UV ink jet. It is used to assist the UV curing process for inks, toners, adhesives, resins, paints and coatings, solder masks, etch resists and printing plates. The substance has a yellowing effect over time and so is not likely to be used in clear coatings. The typical addition rate for this substance in the coatings, adhesives and inks is 1-10 % before the UV curing process is carried out. Industry sources indicate that the efficiency of homolytic cleavage during the UV curing process is typically between 95% to 99% (less than 95% homolytic cleavage would affect the chemical properties of the ink or surface coating and likely result in quality issues with the coated article). Taking account of the weight of the article that the coating, adhesive, ink etc is applied to, even in a simple article the concentration of the substance in the coated article will be < 0.1% in the vast majority of cases even before UV curing. After curing, in a worst case scenario where the addition rate in the coating is 10% and the efficiency of the UV curing process is 95%, this would result in 0.5% of residual substance in the coating at the homogenous material level. The coating would need to weigh more than 20% of the total weight of the coated article for the substance to be present > 0.1% by weight in the coated article. In industry today, there are no practical applications where inks and coatings will represent more than 20% by weight of the coated article. Therefore, this substance will not be present in concentrations > 0.1% by weight in supplied articles.
Included in REACH Candidate List on 25 June 2020 Unique ID == EUREACH-0620			

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
Dibutylbis(pentane-2,4-dionato-O,O')tin	22673-19-4	Yes	See detailed chemicals guidance in BOMcheck for further information
1-vinylimidazole	1072-63-5	No	1-vinylimidazole is used as a UV curing agent in UV cured inks, UV cured coatings and UV cured adhesives. It is a highly reactive UV curing agent and becomes fully reacted by copolymerization during the UV curing process. 1-vinylimidazole is also used as an epoxy accelerator. In this application the substance also becomes fully reacted. 1-vinylimidazole is also used as an ingredient in the manufacture of molecularly imprinted polymers, in the manufacture of magnetic-poly(divinylbenzene-1-vinylimidazole) microbeads, and in the manufacture of ion imprinted polyvinylimidazole-silica hybrid copolymer. None of these applications result in 1-vinylimidazole being present > 0.1% w/w in supplied articles.
Butyl 4-hydroxybenzoate	94-26-8	No	Butyl 4-hydroxybenzoate, also known as Butylparaben, or butyl p-hydroxybenzoate, is a member of the paraben family, a group of naturally occurring compounds found in fruit and vegetable products and produced by some microorganisms. Parabens are widely used as preservatives in cosmetics in concentrations between 0.01 and 0.3 %. Since the 1940's Butylparaben has been widely used an antimicrobial additive for cosmetics and personal care products and in pharmaceuticals for its bactericidal, fungicidal properties. Butylparaben can be found at low concentrations in solid medication suspensions such as ibuprofen. It can also be used as a food preservative. Butylparaben can also be used as a heat/pressure transfer fluid in closed systems. None of these applications result in Butyl 4-hydroxybenzoate being present > 0.1% w/w in supplied articles.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
2-methylimidazole	693-98-1	No	2-methylimidazole can be used as a polymerisation crosslinking accelerator and hardener for epoxy resin systems for semiconductor potting compounds and encapsulations, and soldering masks. 2-methylimidazole is also used as hardener in epoxy glues used as one-component adhesives for auto, aerospace and electronics applications such as power inductors and choke coils. When used as a hardener, the typical addition rate is about 3 - 5% by weight of the epoxy resin. When used as a crosslinking accelerator, the typical addition rate is 0.5 – 1.5%. https://adhesives.specialchem.com/product/a-ac-catalysts-resicure-2-mi In both these applications, the 2-methylimidazole has high reactivity and initiates the polymerization of the epoxy compounds. The addition of 2-methylimidazole significantly reduces the curing temperature of the reaction and increases the mechanical and thermal properties of the blends by acting as highly active initiator for fast cross-linking. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6124101/ As a highly reactive crosslinking accelerator and hardener, the 2-methylimidazole becomes fully reacted and is not present > 0.1% w/w in the cured epoxy. 2-methylimidazole can also be used as an intermediate in the manufacture of a wide range of polymers including epoxy resin pastes, acrylic rubber-fluororubber laminates, films, adhesives, textile finishes and epoxy silane coatings. It has also been used as an auxiliary in the dyeing of acrylic fibers and plastic foams and as in intermediate in the manufacture of pharmaceuticals, photographic and photothermographic chemicals, dyes and pigments, agricultural chemicals and rubber. None of these applications result in 2-methylimidazole being present > 0.1% w/w in supplied articles.
Included in REACH Candidate List on 19 January 2021 Unique ID == EUREACH-0121			
Bis(2-(2-methoxyethoxy)ethyl)ether	143-24-8	Yes	See detailed chemicals guidance in BOMcheck for further information

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
Dioctyltin 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	No CAS number(s) provided	Yes	See detailed chemicals guidance in BOMcheck for further information
Included in REACH Candidate List on 8 July 2021 Unique ID == EUREACH-0721			
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]	No CAS number(s) provided	Yes	See detailed chemicals guidance in BOMcheck for further information
4,4'-(1-methylpropylidene)bisphenol	77-40-7	Yes	See detailed chemicals guidance in BOMcheck for further information
Orthoboric acid, sodium salt	No CAS number(s) provided	Yes	See detailed chemicals guidance in BOMcheck for further information

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
1,4-dioxane	123-91-1	No	1,4-dioxane is used primarily as a solvent in manufacture of other chemicals and in paints, laquers, varnishes, cleaning and detergent preparations. The boiling point for 1,4-dioxane is 101oC and so the substance evaporates during use. One of the most common uses of 1,4-dioxane was as a stabiliser for chlorinated solvents, e.g. to prevent the chemical reaction of 1,1,1-trichloroethane (TCA) or trichloroethylene (TCE) with aluminium. Use of TCA was phased out under the Montreal Protocol 1995 and so the use of 1,4-dioxane as a solvent stabiliser was terminated. When 1,4-dioxane is used as a solvent in the manufacture of other chemicals such as cosmetics and personal care products, the substance may be present as a trace impurity in these chemical products. None of these uses of 1.4-dioxane will result in the substance being present >0.1% in supplied articles.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
Phenol, alkylation products (mainly in para position) with C12-rich branched alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof (PDDP)	No CAS number(s) provided	No	This entry is for a group of substances (PDDP) which includes PDB (Dodecylphenol, CAS 121158-58-5). The main application of PDDB is as a chemical intermediate in the manufacture of lubricant additives and fuel system cleaners for use in petrol- and diesel-powered road vehicles and marine diesel engines. The lubricant oils can contain up to 2% of unreacted PDDP impurity. PDDB is also used as a chemical intermediate in the manufacture of chemicals, plastic products and rubber products such as tires. The boiling point range for PDDB substances is between 189-270°C and so PDDB will be completely reacted in these high temperature manufacturing processes. PDDB is used in certain resins and hardeners where it can be present up to 50%. However, in these applications the PDDB is reacted in the curing process and is not present > 0.1% in supplied articles. PDDP is also used as an intermediate in production of specialized paints, varnishes, resins and coatings and as monomer in phenol/formaldehyde resins that are then used in printing inks and paints and coatings. An example of this specialist use is hard flooring. These specialist paints and coatings can typically contain about at 2.5-5% PDDP. However, the boiling point range for PDDP substances is between 189-270°C and so any unreacted amounts of these substances will evaporate in the drying/curing process. In view of these physical properties, PDDP will not be present as a substance in the dried paint. None of the above applications will result in PDDP being present >0.1% in supplied articles.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
glutaral	111-30-8	No	Glutural (Glutaraldehyde) is also known under trade name Cidex and is used as a biocide/disinfectant in a wide range of applications including hospitals, agriculture, food handling and storage, and water treatment plants. Glutural can also be used as a preservative in the manufacture of cosmetics, cleaners, coatings, inks and dyes, as a fixative in biological applications, and as a tanning agent in the production of leather. Glutural is also used in developing solutions for black and white x-ray photography as a hardener or crosslinking agent to minimise drying time. As a hardener or crosslinking agent, the substance becomes fully reacted and is not present in the processed X-ray film. None of the above applications will result in Glutaral being present >0.1% in supplied articles.
2-(4-tert-butylbenzyl)propionaldehyde and its individual stereoisomers	No CAS number(s) provided	No	Also known via trade name lilial or lysmeral, this substance is a synthetic Lily of the Valley (flower) fragrance that is used as a fragrance ingredient in consumer products such as air care products, perfumes, polishes, waxes, cleaning and personal care products. It is also used as a perfume in cosmetic preparations and laundry powders, often under the name butylphenyl methylpropional. It can also be used in industrial coating and cleaning products. None of the applications will result in Lilial being present in supplied articles >0.1% Page 62 of the Proposal for Harmonised Classification and Labelling of lysmeral (prepared by BASF SE) notes that lysemeral may be used as a fragrance substance in inks and toners. The weight of the inks and toners in typical consumer printer cartridges can be up to 50% by weight of the cartridge. However, BASF has confirmed that lysemeral is an expensive fragrance and amount of lysemeral in the ink will not result in lysemeral being present in the printer cartridge > 0.1% by weight of the cartridge.

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)	No CAS number(s) provided	No	This entry covers three small brominated alkyl alcohols (SBAAs); BMP, TBNPA and 2,3-DBPA which can be used in a variety of applications including as an intermediate in the manufacture of polymers, plastic products and chemicals. BMP is used as a reactive flame retardant intermediate in the manufacture of polymer resins and also as a monomer in polymerisation reactions. In these applications the BMP is reacted and is not present in final resins and polymers. TBNPA and 2,3-DBPA are structurally identical but have different CAS numbers and are used as reactive intermediates for high molecular weight flame retardants in combination with phosphorous and also as reactive flame retardants in polyurethanes. TBNPA is also used as a reactive processing aid in polymer production and DBPA is used as an intermediate in the manufacture of other chemicals. In these applications the TBNPA and 2,3-DBPA are reacted and are not present in the final polymers and polyurethanes. https://iclgroupv2.s3.amazonaws.com/ipsite/wp-content/uploads/sites/1009/2019/09/FR-513TBNPA.pdf A report commissioned by the Danish EPA as part of a proposal for restriction of SBAAs in the RoHS Directive identifies the potential use of BMP as a reactive flame-retardant intermediate in the manufacture of epoxy resins used in circuit boards in mobile phones. In these applications the BMP is reacted and are not present in the final epoxy resins. https://mst.dk/media/143354/2017-01-16-evaluation-sbaa.pdf Some suppliers have reported 2,3-dibromo-1-propanol (CAS number 96-13-9) as an ingredient in the “flux” material of a coil transformer. For example, a declaration for a transformer may reports that “flux” material represents 0.5% by weight of the transformer, and that flux material contains 0.5% of 2,3-dibromo-1-propanol by weight of the flux. A flux is used in soldering of metals to remove any oxidized metal from the surfaces to be soldered, to seal out air thus preventing further oxidation, and to facilitate amalgamation by improving the wetting characteristics of the liquid solder. For example, tin-lead solder attaches very well to copper, but poorly to the various oxides of copper, which form quickly at soldering temperatures. By preventing the formation of metal oxides, flux enables the solder to adhere to the clean copper metal surface, rather than forming beads, as it would on an oxidized surface.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
			Some fluxes are cleaned from the article after soldering, other fluxes are no-clean fluxes which are sufficiently volatile or undergo thermal decomposition to non-corrosive residues. 2,3-dibromo-1-propanol (CAS number 96-13-9) is a lightly yellow viscous liquid at room temperature and has a boiling point of 219°C. Wave soldering processes operate at temperatures between 230 (for leaded solder) to 270 (for lead-free solder). During the soldering process, the 2,3-dibromo-1-propanol (CAS number 96-13-9) in the flux evaporates at these high temperatures. As a result, 2,3-dibromo-1-propanol (CAS number 96-13-9) is not present in the metal solder joint. Some suppliers have reported that 2,3-dibromo-1-propanol (CAS number 96-13-9) is used as an ingredient in certain types of paint. If the 2,3-dibromo-1-propanol is used as a reactive flame retardant in the polymer resins in the paint, then the 2,3-dibromo-1-propanol will become reacted and will not be present as a substance in the paint. In any case, as noted above, 2,3-dibromo-1-propanol (CAS number 96-13-9) is a lightly yellow viscous liquid at room temperature and has a boiling point of 219°C. Therefore 2,3-dibromo-1-propanol will not be present in the dried paint. None of these uses of SBAAs will result in the substances being present >0.1% in supplied articles.
Included in REACH Candidate List on 17 January 2022 Unique ID == EUREACH-0122			
6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol	119-47-1	Yes	See detailed chemicals guidance in BOMcheck for further information

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
(±)-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)	No CAS number(s) provided	No	This substance, also known as 4-methylbenzylidene-camphor (4-MBC) or Enzacamene and under trade names Eusolex 6300 and Parsol 5000, is used as a UV absorber/filter (specifically UVB) in cosmetic and personal care applications such as sunscreen and other products claiming an SPF value. Whilst not considered safe for use by the FDA or in Japan and Denmark, 4-MBC is approved by Health Canada and is allowed in the EU to be included in cosmetic products at concentrations up to 4% as a UV filter. A similar compound, 3-BC (which differs structurally by a single methyl group) was included on the Candidate List on 15 January 2019 and is banned for use in cosmetics within the EU. VT 62474 agreed not to include 3-BC on the IEC 62474 database because, similar to 4-MBC, the substance is a chemical UV filter which is used to provide UV protection in sunscreen lotions, sun blocks, hair care products and other cosmetic products claiming a Sun Protection Factor (SPF). None of these applications are relevant to parts and materials used in articles. Therefore, this substance is not present >0.1% w/w in supplied articles.
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	No	This substance is used as an additive in lubricants and greases and non-reactive processing aids which have applications in vehicles and at industrial sites. None of these applications will result in this substance being present in supplied articles at a concentration >0.1% w/w of a supplied article.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
tris(2-methoxyethoxy)vinylsilane	1067-53-4	No	tris(2-methoxyethoxy)vinylsilane is a vinyl-functional coupling agent that promotes adhesion among unsaturated, polyester-type resins, cross-linked polyethylene resins or elastomers and inorganic substrates including fibre glass, silica, silicates and many metal oxides. When used as coupling agent, it reduces the sensitivity of the products' mechanical and electrical properties to heat and/or moisture. Applications of this substance include the manufacture of plastic and rubber – sealants, non-metal surface treatments, adhesives and as a monomer in the production of silicone polymers/resins and co-monomer in the production of polymers such as polyethylene and acrylics, where it promotes moisture induced coupling. In all of these applications, tris(2-methoxyethoxy)vinylsilane is reacted during use and as a result tris(2-methoxyethoxy)vinylsilane is not present as a substance in articles in concentrations >0.1% w/w of the supplied article.
Included in REACH Candidate List on 10 June 2022 Unique ID == EUREACH-0622			

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
N-(hydroxymethyl)acrylamide (NMA)	924-42-5	No	N-(hydroxymethyl)acrylamide or NMA is a chemical intermediate and cross-linking monomer used in the production of other chemicals, polymers, and in binders and adhesives used in paper and textiles. NMA can be used as a monomer for polymerisation including as a fluoroalkyl acrylate copolymer in paints and coatings. NMA can also be used in the textiles industry as a cross-linking agent to provide favourable properties such as crease resistance and stain resistance. Companies are looking to use alternative chemicals in textiles applications because of the potential for formaldehyde release. NMA monomer is regulated for use as a food contact substance under the EU – Commission Regulation (EU) No 10/2011 on plastic materials and food contact articles. This substance which appears on the Proposition 65 list has previously been screened out by BOMcheck due to it not occurring in products. NMA is reacted in all of these applications. Although trace residual monomer may remain this will not result in this substance being present in supplied articles at a concentration >0.1% w/w of the supplied article.
Included in REACH Candidate List on 17 January 2023 Unique ID == EUREACH-0123			

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
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	No CAS number(s) provided	Yes	This entry is a substance that consists of two main constituents which are structural isomers with very similar chemical structures. Text from REACH Annex XV report: *The substance is used in articles, by professional workers (widespread uses), in formulation or re-packing, at industrial sites and in manufacturing.* *A series of perfluorinated substances is already identified as SVHC (PFHxS and its salts, PFBS and its salts, HFPO-DA, PFOA, C9-C14 PFCAs). For some of these substances, i.e., C11-C14 PFCAs, PFHxS and its salts, the identification as SVHC was (also) based on Article 57(e) of the REACH Regulation.* This substance can be used in functional fluids (at industrial sites) e.g. hydraulic and metalworking fluids.
Perfluoroheptanoic acid and its salts	375-85-9 6130-43-4 21049-36-5 20109-59-5	Yes	Also known as PFHpA, this entry in the REACH candidate list includes the sodium, ammonium and potassium salts. There is no evidence of uses of this substance in supplied articles and it is not commercially produced. The substance is a degradation product of PFAS substances with carbon chains of 7 or more carbon atoms. PFHpA belongs to the chemical group of short-chain PFCAs. PFHpA and its salts can be expected to have very similar properties to PFHxA, HFPO-DA and PFOA. This substance may occur as a breakdown product of stain and grease-resistant coatings on products.

Melamine	108-78-1	Yes	Melamine is a starting material for various polymerization reactions including resins, laminates and coatings. Melamine can also be used in additive flame retardants (such as intumescent coatings) and also in textiles, paper, rubber and inks. **Use in resins, laminates and coatings** Melamine is used to produce formaldehyde-based resins that are used in the woodworking industry to produce glues and binders and scratch-resistant coatings and also as cross-linkers in the production of foams and consumer goods. Melamine-produced resins are used in durable thermosetting plastic applications such as laminate flooring and decorative work surfaces (formica) and tableware. Melamine foams have applications in soundproofing and insulation as well as cleaning products (e.g. cleaning sponges). Melamine laminate tubes can be used to produce electrical fuses. **Use as flame retardant** Melamine derivatives are used as additive flame retardants in a range of applications. Nitrogen-based flame retardants such as those using melamine are preferred for environmental reasons over halogenated flame retardants as they emit a low amount of toxic gasses and smoke and are often used in combination with phosphorus-based flame retardants. Melamine is used to produce intumescent coatings such as melamine phosphate, melamine polyphosphate, melamine cyanurate, melamine-poly(zinc phosphate) or melamine borate which have applications in the construction industry and rigid foams used in industrial applications. Melamine itself can also be used as a flame retardant in foams such as flexible polyurethane foam. Melamine fibre (Basofil) can be used to produce fire-protective clothing. **Other uses** • Textile and leather finishing: cellulose-containing fabric is impregnated with melamine resins in order to enhance dimensional stability, abrasion resistance and wet strength. To some extent, the flammability of fibres is also decreased. Melamine resins are moreover used to increase durability and abrasion resistance in the tanning of leather. • Literature reports the possible use of melamine resins as filler in the rubber industry and as a matrix for ion-exchanger resins

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			• Melamine is one of the major components in Pigment Yellow 150, a colorant in inks and plastics. • Paper finishing: addition of melamine resin increases the wet strength and wet abrasion resistance of paper • Melamine can be present in solder mask ink used on PCBs • Melamine can be present in food contact materials (out of scope of BOMcheck) In all of the above applications, melamine is reacted and/or cured and although trace amounts may remain this is unlikely to result in a concentration in supplied articles above 0.1% w/w other than where Melamine itself may be used directly as an additive flame retardant, for example, in flexible polyurethane foam.
Isobutyl 4-hydroxybenzoate	4247-02-3	Yes	Also known as Isobutylparaben, this substance is an antimicrobial preservative used in cosmetics and skincare applications and also as a food preservative and medical suspensions (e.g. ibuprofen). Parabens including isobutylparaben and other similar compounds are used to prevent mould and bacteria in personal care products. Isobutylparaben may be used less frequently than other parabens and is mainly focused on cosmetic applications. Typically, parabens are used in cosmetics at levels ranging from 0.01 to 0.3%. ECHA mentions that the substance may be found in inks and toners.

bis(2-ethylhexyl) tetrabromophthalate covering any of the individual isomers and/or combinations thereof	26040-51-7	Yes	Bis(2-ethylhexyl) tetrabromophthalate is a diastereoisomer consisting of three stereoisomers (R-/R-, R-/S- or S-/S-). Also known as TBPH, the main use of this substance is as a flame retardant in polyurethane foam which has many consumer uses. TBPH belongs to a group of flame retardants called novel brominated flame retardants used to replace polybrominated diphenyl ethers (e.g. PBDEs, DecaBDE, HBCDD). TBPH can also be used as a plasticiser in vinyl products such as PVC and neoprene where it can be used in wire coatings, coated fabrics, and adhesives. **Use in flame retardants** TBPH is one of the two brominated chemicals in Firemaster 550 (TBPH:TBB ratio approx. 20-30:70-80) which is mainly used as a replacement for Penta-BDEs in polyurethane foam (PUF). TBPH can also be found in DP-45. • Firemaster 550 is an additive flame retardant and therefore not chemically bound to the polymer. Where flame retardants are used in flexible PUF they are likely to be additive flame retardants. Whereas rigid PUF may use reactive flame retardants. • DP-45 contains mainly TBPH (about 91%) and is used as a flame retardant in PVC applications such as wire and cable insulation. From Annex VX report: • Stapleton et al. (2011) where the combined concentration of these two brominated flame retardants ranged from 5.85-42.5 g/kg (mean 18.51 g/kg = 1.85 %) in polyurethane foam collected from baby products (car seats, changing table pads, portable mattresses, rocking chairs) throughout the U.S. purchased from 2002 to 2009. • Stapleton et al. (2012) where the average concentration of the combination of TBPH, TBB and TPP in polyurethane foam in residential couches purchased in the U.S. from 1985 to 2010 was 19.76 g/kg (= 1.98 %) detected in 13/102 samples. **Use as a plasticiser** ECHA states there is little information on the concentration of TBPH for these uses but if used as a plasticiser then it is possible for TBPH to exceed a concentration of 0.1% w/w in supplied articles.
Barium diboron tetraoxide	13701-59-2	Yes	Identifiers for hydrated forms of the substance are also within the scope of the REACH candidate list entry: e.g., boric acid (HBO2), barium salt, monohydrate

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			(CAS number 19004-06-9) and boric acid (HBO2), barium salt, dihydrate (CAS number 38720-52-4). Barium borate is a metal borate that is used in industry for the manufacture of coatings and paints, thinners, and paint removers. The substance is used as an anti-rust pigment and is commonly used in the ceramic, paper, rubber and plastic industries as a coating. Several inorganic boron compounds, in which boron is bonded exclusively to oxygen and that are often referred to as borates, are already included in the Candidate List. Barium borate has similar properties to the other borate substances included on the Candidate List and may be used as an alternative to these substances which can be present >0.1% in supplied articles when they are used as flame retardant/adhesive ingredients for wood, paper, cotton and other plant-derived materials. Barium Borate is UV resistant and may be used as a UV stabiliser in PVC materials in concentrations above 0.1% w/w. There is evidence this substance can also be present >0.1% in resistive ink used in trimmer potentiometers.

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4,4'-sulphonyldiphenol	80-09-1	Yes	This substance has an existing entry in BOMcheck under the other regulated substances list where it is restricted at maximum concentrations of 0.02% (200 ppm) w/w in thermal paper as part of the ORRChem regulation in Switzerland. BPS is structurally similar to BPA and they both have similar hazard profiles. BPS is most widely used as an alternative to BPA in thermal paper. BPS may also be used as a monomer in the production of PES and synthetic tanning agent and in the manufacturing of paper and food contact materials. Substitution of BPA with BPS is also possible in other applications where BPA is used. **Use in thermal paper** BPS can be used as an alternative to BPA in thermal paper applications and can be present up to 3% by weight of the paper. It can be used for the coating of thermal paper where the printing is performed by the heating impact of the print head. Thermal paper can be used for cash register receipts, tickets, stickers, fax paper, etc. The level of BPS (as an alternative to BPA) can vary between 0.5% in air tickets and labels, to 2% in ATM receipts and till receipts, and up to 3.2% in parking tickets. **Use in PES and other polymers** BPS is included in polyethersulfone (PES) plastic, used to produce hard reusable plastic items and synthetic fibres for textiles. BPA and therefore possibly BPS can be used as an ingredient in the manufacture of polycarbonate plastic, epoxy resins and other polymers, however, the residual level of BPA in the manufactured materials is below 0.01%. The residual level of BPS in these applications is likely to be similar to that of BPA. **Use as an antioxidant in PVC** BPA and therefore possibly BPS can be used as an antioxidant in PVC up to 0.2%.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol	79-94-7	Yes	This substance has an existing entry in BOMcheck under the Proposition 65 list at the same concentration of 0.1% w/w (or 1000 ppm). *Tetrabromobisphenol A, known as TBBPA, is a brominated flame retardant and is one of the most commonly used flame retardants.* *TBBPA is widely used as a reactive flame retardant to produce a bromine-containing epoxy resin and polycarbonate. TBBPA is used to prepare fire-resistant polycarbonates by replacing some of the bisphenol A in the polycarbonate. A lower grade of TBBPA is used to prepare epoxy resins, used in printed circuit boards. As a reactive flame retardant, TBBPA is incorporated into the polymer backbone and is not detectable as a substance in the supplied article.* *TBBPA is also used as an additive flame retardant for acrylonitrile-butadiene-styrene (ABS), high impact polystyrene (HIPS), phenolic resins, unsaturated polyester rigid polyurethane foams, adhesives and coatings. Typical addition rates for TBBPA are:* *- ABS (medium to high impact): 17.6% to 22.0%* *- HIPS: 14%* *As an additive flame retardant, TBBPA does not react chemically with the other components of the polymer and therefore may leach out of the polymer matrix. As an additive flame retardant, TBBPA is detectable as a substance in the supplied article.* *Where TBBPA is used as an additive flame retardant, it is generally used with antimony oxide for maximum performance. Adding 20 to 25% antimony trioxide to TBBPA leads to a doubling of the flame retarding efficiency of the TBBPA. As a result, 50% less TBPPA is needed to achieve the same flame retarding performance. Antimony trioxide is generally not used in conjunction with TBBPA in reactive flame-retardant applications.*

1,1'-[ethane-1,2-diylbisoxy]bis[2,4,6-tribromobenzene]	37853-59-1	Yes	Also known as BTBPE, this substance is a brominated flame retardant and falls into the group of substances known as novel brominated flame retardants (NBFR) developed as a replacement for other regulated brominated flame retardants that have been phased out (e.g. PBDEs, HBCD, TBBA). BTBPE is especially efficient for applications that require thermal stability at high processing temperatures. BTBPE is an additive flame retardant meaning that it does not react chemically with the polymer that it is combined with and therefore is detectable as a substance when combined in an article. Addition rates are expected to be similar to other brominated flame retardants (10-20%). However, this depends on several factors including the desired flame retardancy and desired properties of the final product. BTBPE is for the most part used as a replacement to Octa-BDE in ABS but it can also be used to replace Deca-BDE. BTPBE may also be used as a flame retardant in high-impact polystyrene (HIPS). ABS (or acrylonitrilebutadiene-polystyrene) is a widely used engineering thermoplastic material and can be found in many different industries including the electronics and construction industry and has industrial and consumer applications. Uses of Deca-BDE where BTBPE could be used as a regrettable substitution include: • Polyolefins - DecaBDE may be used in polypropylene (PP), polyethylene (PE), polypropylene ether (PPE) and ethylene vinyl acetate (EVA) polymers. Examples of end uses where DecaBDE may be present include power cables, conduits, electrical connectors, electrical boxes, wire and cable insulation and heat shrinkable materials. , • Styrenics - DecaBDE can be used in high-impact polystyrene (HIPS), acrylonitrile butadiene styrene (ABS) and polyphenylene oxide/polystyrene blends (PPO/PS). • Engineering thermoplastics- DecaBDE may be used in the following: • polyesters such as polybutylene terephthalate (examples include circuit breakers, sockets and electrical connectors) and polyethylene terephthalate (PET) • polyamides, for example nylon used for injection moulding applications in transport applications

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			• polycarbonate (PC), for example for automotive components such as headlamps and bumpers, and polycarbonate blends, for example PC/ABS • polyimides, for example used for seals and gaskets • Thermosets - DecaBDE is used in unsaturated polyester resins (UPS) and epoxy resins which have applications in electronics, construction and aerospace. • Elastomers - DecaBDE may be used in ethylene propylene diene monomer (EPDM) rubber, for example for automotive radiator hoses and seals, cable and wire insulation, styrene-butadiene rubber (SBR), thermoplastic polyurethanes (TPUs), for example for automotive and wire and cable applications, and ethylene vinyl acetate (EVA) elastomers often used for wire and cable insulation.
Included in REACH Candidate List on 14 June 2023 Unique ID == EUREACH-0623			

bis(4-chlorophenyl) sulphone	80-07-9	Yes	This substance is mainly used as a monomer in the production of polysulfone polymers and also in the production of rubbers and other chemicals. **Use as a monomer:** This substance is reacted with various chemicals to produce high-temperature thermoplastics such as polysulfones, polyethersulfones and polyphenylsulfones (PESU, PSU, PPSU). These polymers are used in a broad range of commercial applications including: • Automotive sector (e.g., head reflector lamps, fuses) Aeronautic sector • Dental applications • Electric/Electronics components • Medical devices • Microwave cookware • Piping • Plumbing applications • Water/oil pumps A re-formation of this substance by polymer chain breakdown is very unlikely from a chemistry point of view, as there is usually no chlorine available for the reaction. Residual unreacted amounts may remain but are unlikely to be present >0.1% w/w **Use as an additive:** This substance can be used as an additive in fluoropolymers for rubber production and this may be at levels >0.1% w/w. There is evidence that this substance may be used as an additive in reactive dyes in the textile industry. **Other uses:** This substance has also been used as an insecticide for agricultural purposes either directly or as an impurity in these products. This substance is also used as a precursor to 4,4'-diaminodiphenyl sulfone which can be used as hardener for epoxy resins and in pharmaceutical applications. The substance can also be used as an intermediate in the production of flame retardants. It is expected to be used as starting material in producing flame retardants and not used directly as a flame retardant itself. Polymers made with this substance, such as polysulfones and polyether sulfones have high

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
			resistance to burning and in most applications do not require additional flame retardants.

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	75980-60-8	Yes	The main use of this substance is as a photo initiator where it can be used in UV-curable coatings (unsaturated polyesters and resins containing acrylic ester group), printing inks (Inkjet Ink, Offset Ink, Flexography Ink, Screen Printing Ink, Lithographic Ink), paints, lacquers, varnishes, and also in UV curable adhesives, sealants, fillers and cosmetic products (e.g. nail products). The substance is a Norish type I (alpha-cleavage) photo initiator which means that during the reaction the molecule splits into two free radical fragments that become incorporated into the polymer. The substance will be consumed rapidly during the reaction process and any small residual amounts that may remain will be trapped within the polymer matrix. The substance is typically used as a photo initiator in concentrations of 0.5-6% w/w and is widely used due to its colour stability and efficient curing. It can also photo-bleach resulting in low yellowing coatings, which is required for white-pigmented coatings and printing inks, such as silk-screen printing. Due to the recent revision of the harmonised classification of diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (Repr. 1B), the substance will become prohibited as a cosmetic ingredient according to Cosmetics Regulation (EC) No 1223/2009 (Article 15). This substance can be used in solder mask ink where it may be used >0.1%. However, this is expected to be a UV-curable solder mask which means the substance will be reacted during the manufacturing process. **Other uses:** • It can be used in the photo-crosslinking of PMMA composite, which can further be used as a gate insulator in organic thin film transistors (OTFTs) • It may also be used in the photoinduced reaction for the formation of organophosphine compounds, which potentially find their usage as ligands with metal catalysts and reagents. • The chemical has reported non-industrial uses as an auxiliary for dental technology. • The substance can also be found in materials based on fabrics, textiles and apparels (e.g., clothing, mattresses, curtains, carpets, or textile toys), paper (e.g.,tissues, feminine hygiene products, nappies, books,

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
			magazines, or wallpaper) and plastics (e.g., food packaging and storage, toys, or mobile phones) • Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials • In all applications the substance is expected to be reacted and not present >0.1% w/w in supplied articles.
Included in REACH Candidate List on 23 January 2024 Unique ID == EUREACH-0124			

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
2,4,6-tri-tert-butylphenol	732-26-3	No	2,4,6-TTBP is a chemical primarily used as an additive in fuels and lubricants and as an intermediate in the production of other chemicals. Its usage is subject to restrictions under USA TSCA 6(h) (chemicals only, not articles) and is banned in Japan. **Key Applications** 1. **Fuels and Lubricants:** ○ Used as an antioxidant in gasoline, jet fuel, diesel, biodiesel, lubricants, cutting oils, and hydraulic fluids. ○ Typical concentrations are 1-5%, but some applications report up to 30% w/w. ○ https://www.epa.gov/sites/default/files/2017-08/documents/246-ttbp-use_information_-_8-7-17-clean.pdf 2. **Chemical Intermediate:** ○ Used in producing antioxidants for rubber and plastics. ○ By-product in the production of 4-tert-butylphenol (for epoxy and polycarbonate resins) and 2,6-di-tert-butylphenol (antioxidant and chemical intermediate). 3. **Other Uses:** ○ Found in agricultural products (fertilizers and pesticides), explosives, cleaning agents, and solvents. ○ Rarely used as an antioxidant/stabilizer in plastic materials. **Presence in Supplied Articles** • In most applications, 2,4,6-TTBP is reacted or confined to manufacturing processes, making its presence in articles unlikely to exceed 0.1% w/w. • Minimal risk of direct presence in end-use products, except in rare cases involving plastic materials. **Summary:** 2,4,6-TTBP is an industrial additive and intermediate, primarily used in fuels, lubricants, and chemical production. While restrictions and bans limit its use, it is typically confined to industrial applications, with limited potential for significant presence in finished articles.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
2-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)phenol (UV-329)	3147-75-9	Yes	This substance, also known as UV-329 is a UV protection agent and part of a group of phenolic benzotriazoles which are also called UV benzotriazoles. Several structurally similar substances have previously been identified as SVHCs (UV-320, UV-328, UV-327 and UV-350) due to their vPvB properties. UV 329 can be used alone or in combination with other additives such as light stabilizers (hindered amines), antioxidants (hindered phenols, phosphites, thiosynergists, hydroxylamines), and other functional stabilizers and additives. Typical use levels range between 0.1 and 3.0%, depending on the substrate and performance requirements of the final applications. Typical applications of UV-329 include air care products, coating products, adhesives and sealants, lubricants and greases, polishes and waxes, and washing and cleaning products. UV-329 may be used in the manufacture of a variety of plastic products, particularly in polyesters, polyvinyl chlorides, styrenics, acrylics, polycarbonates and polyvinyl butyral to protect against outdoor weathering. Typical end-use applications include moulded items, extruded sheets, glazing materials for window lighting, signs, marine, and auto applications. Reported use of up to 5% in organic solderability preservative (OSP) applied to PCBs. When used for this application the OSP PCB finish is partially eliminated during the manufacturing process but will remain on copper surfaces not involved in any soldering process.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
2-(dimethylamino)-2-[(4-methylphenyl)methyl]-1-[4-(morpholin-4-yl)phenyl]butan-1-one	119344-86-4	No	This substance is used as a photo-initiator for UV inks and coatings. It is structurally similar to two substances identified as SVHCs in January 2020 which were subsequently screened out by BOMcheck (2-benzyl-2-dimethylamino4'-morpholinobutyrophenone & 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one). All three substances belong to the chemical group of alkylaminoacetophenones (AAAPs) and have similar properties, uses and risk patterns. AAAPs are very reactive type I - photoinitiators and are very efficient in producing radicals and lead to very fast curing. Typical uses for these substances include high-speed offset and flexo inks, UV ink-jet, etch resists, printing plates and solder masks. Due to their yellowing effect, they have only limited use in very clear coatings. Applications include vehicles, metal articles, rubber articles and plastic articles; paper is also indicated. Other uses for this substance may include as an intermediate, in photosensitizers and as a semiconductor and photovoltaic agent. Typical addition rates: • Addition rates for the substance in printing ink can be between 2.5-10%. • It can be used in a coating on capacitors up to 12% w/w. • Declarations in BOMcheck indicate it can be present in coatings around 0.2%. • Printing Ink SDS: https://www.tiflex.com/fds/uploads/3Y260620_EN.pdf In all applications due to the reactive nature of the substance, it is not expected to be present in the supplied article >0.1% w/w as it will be reacted and/or cured.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
Bumetrizole (UV-326)	3896-11-5	Yes	This substance, also known as UV-326 is a UV protection agent and part of a group of phenolic benzotriazoles which are also called UV benzotriazoles. Several structurally similar substances have previously been identified as SVHCs (UV-320, UV-328, UV-327 and UV-350) due to their vPvB properties. UV-326 bears a high similarity to these substances, especially to UV-327. Bumetrizole is an ultraviolet light absorber of the hydroxyphenyl benzotriazole class, which imparts outstanding light stability to plastics and other organic substrates. Bumetrizole is also approved by the FDA as a stabilizer in polymers used in producing, manufacturing, packaging, processing, and transporting food. Bumetrizole has a wide range of indirect food approvals in polyolefins. It has a low volatility at high temperatures and high resistance to thermal degradation and can, therefore, be used without significant loss or decomposition in the polyolefin compounding and moulding processes. Sunscreen ingredient that absorbs primarily UVB light. Bumetrizole is an intermediate reactant in the synthesis of UV light absorbers for polyester fibres. Formulations are further used for coatings, inks and toners, textile dyes and impregnation products, perfumes and fragrances, cosmetics and personal care products, production of polymers like rubber production and processing and rigid foams and flexible foams, Adhesives and sealants manufacture, lubricants and greases, metalworking fluids and hydraulic fluids.

Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol	No CAS number(s) provided.	Yes	Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol (OAPP) is a UVCB (substance of Unknown or Variable composition, Complex reaction products and or Biological Materials) consisting of a number of constituents. The substance was previously identified with the name phenol, methylstyrenated and EC number 270-966-8 and CAS number 68512-30-1. Limited data was available on the addition rates of this substance and it is not clear whether the substance is reacted or not during use. The following uses were identified **some of which could result in the substance being present >0.1% w/w in supplied articles**: • Protective paints and coatings, lacquers and varnishes (e.g. anti-corrosion) for ships and large industrial equipment • **Adhesives and sealants** • **Printing inks** • **Rubber formulations** • Fuel additives • **Polymer production** • Construction materials • **Antioxidant in rubber** • Reactant to produce polymeric surfactants Canada screening identifying uses: https://www.canada.ca/content/dam/eccc/documents/pdf/pded/phenol-methylstyrenated/draft-screening-assessment-phenol-methylstyrenated.pdf Plasticiser SDS:https://www.palmerholland.com/getmedia/0f71999d-0de4-4df1-a368-6f16276a5d58/MITM06950_1 Coating SDS: https://msds.carboline.com/servlet/FeedFile/11/prod/8170/721/Carboguard+633+pA+8170_UK+v1.pdf In the above SDS the substance is identified at 2.5-10% in Part A of a coating where it is advised to be mixed in a 2:1 ratio with Part B. It is therefore possible to be present between 5-20%. However, the application of this coating as a heavy duty, high build primer or intermediate coating for the protection of steel in corrosive environments may be out of scope (i.e. industrial use only).
Included in REACH Candidate List on 27 June 2024 Unique ID == EUREACH-0624			

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
Bis(α,α-dimethylbenzyl) peroxide	80-43-3	Yes	Bis(α,α-dimethylbenzyl) peroxide also known as Dicumyl Peroxide is an organic peroxide used as a cross-linking agent in the manufacture of polymers and elastomers. Typical applications of Dicumyl Peroxide as a cross-linking agent include the following: • The vulcinaization of natural and synthetic rubbers - DCP is particularly used for vulcanizing synthetic rubber, such as ethylene-propylene-diene monomer (EPDM) rubber, improving its mechanical properties and heat resistance • In the production of polyethylene and polymers used to produce hose, wires, rubber seals etc. • DCP may be used in adhesives and sealants - DCP promotes the curing of polymers in adhesives and sealants Typical addition rates are reported to be ~2-3%. In all of these applications, Dicumyl Peroxide will react during the curing process. When used as a cross-linking agent, DCP decomposes to generate free radicals at elevated temperatures, which then initiate the cross-linking or curing reactions in the polymer matrix. Dicumyl Peroxide also has reported uses as a flame retardant synergist in expanded polystyrene (EPS) where it is added in small quantities alongside halogenated flame retardants to act as a catalyst for the flame retardant action in case of heating. As it is an additive it may be present in supplied articles >0.1% in this application. EPS may be used in packaging and insulating applications.
Included in REACH Candidate List on 07 November 2024 Unique ID == EUREACH-1124			

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
Triphenyl phosphate	115-86-6	Yes	Triphenyl phosphate (TPhP) is widely used as a flame retardant and plasticizer across multiple industries. Its usage has increased following the phase-out of PBDEs. Concentrations can vary but may reach 20-30% w/w depending on the application. Applications 1. Electronics: Used as a flame retardant in plastics encasing electrical and electronic equipment to reduce fire risks. 2. PVC and Cellulosics: Acts as a plasticizer in materials like polyvinyl chloride (PVC) and cellulosic plastics, improving flexibility and durability. 3. Hydraulic Fluids and Lubricants: Provides thermal stability and flame retardancy, suitable for low-flammability applications. 4. Foam and Furniture: Enhances flame resistance in furniture and automotive seating foam to meet safety standards. 5. Textiles and Fabrics: Improves fire resistance in clothing, curtains, carpets, and other fabric-based products. 6. Film and Sheet Materials: Adds durability and ignition resistance to barriers, covers, and wraps. 7. Paints and Coatings: Improves fire resistance in coatings used in buildings, transport vehicles, and other fire-sensitive environments. 8. Rubber and Elastomers: Enhances fire resistance and processing properties in industrial and consumer products. Summary: TPhP is a versatile additive used for flame retardancy and plasticizing properties across industries such as electronics, textiles, furniture, paints, and coatings. It enhances safety by reducing fire risks and improving material performance.
Included in REACH Candidate List on 21 January 2025 Unique ID == EUREACH-0125			
6-[(C10-C13)-alkyl-(branched, unsaturated)-2,5-dioxopyrrolidin-1-yl]hexanoic acid	2156592-54-8	Yes	This substance is used in hydraulic fluids, lubricants, greases, and metalworking fluids which have applications in vehicles and at industrial sites. It may also be used as a surfactant in personal care products.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
O,O,O-triphenyl phosphorothioate	597-82-0	Yes	This substance is a glycol ester that is chemically stable and has a low boiling point. It is used in various industrial and consumer applications. The main uses of this compound are: Lubricants and Greases: • Used in high-temperature environments • Found in cooling liquids (refrigerators, oil-based electric heaters) • Utilised in automotive hydraulic fluids, motor oils, and brake fluids Flame Retardant and Plasticiser: • Employed in manufacturing flexible PVC, plastics, rubbers, and coatings to improve fire resistance and flexibility • Used as an additive to improve durability and performance in coatings, adhesives, and sealants Pesticide and Biocide: • Functions as a precursor for organophosphorus insecticides and herbicides Its sodium salt form is used as an antiseptic and disinfectant.

Octamethyltrisiloxane	107-51-7	Yes	Octamethyltrisiloxane is a highly volatile substance commonly used across various applications: Applications 1. Personal Care Products: ○ Cosmetics and skincare: Functions as an emollient, spreading agent, and conditioning agent in creams, lotions, conditioners, and deodorants. ○ Hair care: Adds smoothness, shine, and detangling properties. 2. Industrial Applications: ○ Lubricants and defoamers for industrial processes. 3. Coatings, Paints, and Inks: ○ Enhances water repellency and durability in automotive and construction products. 4. Adhesives and Sealants: ○ Improves durability and flexibility. 5. Polishes and Cleaners: ○ Adds gloss and protective properties to car, furniture, and floor polishes. 6. Electronics: ○ Used in manufacturing semiconductors and other components. Presence in Supplied Articles • Personal Care Products: May evaporate after application, leaving little to no residue in the final product but remains in unused formulations. • Coated or Treated Surfaces: Found in treated surfaces (e.g., textiles, glass, electronics) as part of coatings or surface treatments. Summary: Octamethyltrisiloxane may be present in supplied articles, particularly in surface treatments, coatings, and products where it serves as a functional additive. However, its volatility often leads to evaporation, meaning it may not remain in some finished applications.

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
Perfluamine	338-83-0	Yes	Perfluamine is a fluorinated compound valued for its chemical stability, low surface tension, and ability to dissolve gases, making it useful in various specialized applications: • Heat Transfer Fluids: Used in liquid immersion cooling for supercomputers, servers, and high-performance computing. • Oxygen Transport: Applied in medical contexts like artificial blood substitutes and oxygen delivery systems. • Lubricants: Employed in aerospace and semiconductor manufacturing for its chemical stability. • Inert Solvents: Utilized in non-reactive processes, especially in electronics. • Optical Devices: Used in infrared-transparent applications like lenses and fiber optics. • Process Chemicals: Involved in fluoropolymer production. Presence in Supplied Articles: Perfluamine may be present in products if integral to functionality but is typically enclosed within systems, such as: • Electronics: Cooling fluids in immersion setups. • Medical Devices: Trace amounts in oxygen transport systems. • Lubricated Components: Residual traces on equipment parts. • Production Processes: Trace amounts may remain but are typically reacted. Overall, perfluamine is usually contained within systems, minimizing exposure risks unless there is a failure or leakage.
Reaction mass of: triphenylthiophosphate and tertiary butylated phenyl derivatives	192268-65-8	Yes	This substance has been included as Reaction mass of: triphenylthiophosphate and tertiary butylated phenyl derivatives contains more than 0.1% TPPT. Assumed similar uses to O,O,O-triphenyl phosphorothioate; TPPT (see entry above).
Included in REACH Candidate List on 25 June 2025 Unique ID == EUREACH-0625			

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
1,1,1,3,5,5,5-heptamethyl-3-[(trimethylsilyl)oxy]trisiloxane	17928-28-8	Yes	This substance is a linear siloxane-based compound commonly used as a processing aid, intermediate, or additive in various applications. It is found in cosmetics, personal care products, perfumes, and fragrances, as well as in coatings, adhesives, electronics manufacturing, and plastics processing. Its functions range from improving spreadability and durability in coatings to acting as a conditioning agent in personal care formulations. Substance may be present >0.1% w/w in supplied articles, particularly in surface treatments and coatings where it serves as a functional additive. However, its volatility may lead to evaporation, meaning it may not remain in some finished applications. Similar structure to other siloxanes (L2, L3, L4, L5, M3T): • L3 added to candidate list in January • L4 and M3T evaluated now • L2 and L5 expected in 2026

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
decamethyltetrasiloxane	141-62-8	Yes	Decamethyltetrasiloxane (L4) is a linear siloxane widely used in silicone polymer manufacturing, cosmetics, lubricants, and electronics. It serves as an intermediate in producing high-molecular-weight silicones, a carrier fluid in personal care products, and a lubricant or release agent in industrial applications. It's low surface tension and high fluidity make it effective in friction reduction and anti-stick applications, particularly under high temperatures. As an intermediate and mould release agent it is unlikely to be present above trace amounts in supplied articles. However, uses as an industrial lubricant and grease, surface treatment and heat transfer fluid may result in presence >0.1% w/w. Similar structure to other siloxanes (L2, L3, L4, L5, M3T): • L3 added to candidate list in January • L4 and M3T evaluated now • L2 and L5 expected in 2026

Substance Category Name	CAS number(s) published by ECHA	Likely to be present in articles > 0.1% w/w?	Comments
tetra(sodium/potassium) 7-[(E)-{2-acetamido-4-[(E)-(4-{[4-chloro-6-({2-[(4-fluoro-6-{[4-(vinylsulfonyl)phenyl]amino}-1,3,5-triazine-2-yl)amino]propyl}amino)-1,3,5-triazine-2-yl]amino}-5-sulfonato-1-naphthyl)diazenyl]-5-methoxyphenyl}diazenyl]-1,3,6-naphthalenetrisulfonate (Reactive Brown 51)	No CAS number(s) provided.	No	There is no CAS number available for this substance which may be found in the market as <80% w/w Reactive Brown 51. The concentration of other constituents present in the composition is <10% w/w. According to the Guidance for identification and naming of substances under REACH and CLP, such a composition may be regarded as corresponding to an UVCB substance and may be described under a different name. Reactive Brown 51 is a synthetic reactive dye primarily used for colouring textiles, leather, and, to a lesser extent, paper. As a reactive dye, it forms a covalent bond with cellulose fibres, ensuring high wash and light fastness. Due to its strong chemical fixation to fibres, Reactive Brown 51 is highly likely not to remain in the final product, with minimal free residue after the dyeing process. Consequently, while it is present in supplied articles it has been reacted and not likely to be detectable >0.1% w.w in it's previous form.