

# **REACH COMPLAINTS FOR LEATHER EXPORTS TO EUROPE**

## **INFORMATION MATERIAL**



**COUNCIL FOR LEATHER EXPORTS**

(Sponsored by Ministry of Commerce and Industry, Government of India)

## REACH COMPLIANCE FOR LEATHER EXPORTS TO EUROPE

▶ REACH is the European Union Chemical Regulation (EC) N°1907/2006 governing the Registration, Evaluation, Authorization and Restrictions of Chemicals. of the European Parliament and the Council dated 18 December 2006. The Regulation Directive came into force on 1st June 2007 to streamline and coalesce various regulations on chemicals of the European Union (EU). REACH is a dynamic regulation that places onus on industry to manage the risks that chemicals may pose to the health and the environment.

Depending on whether the product belongs to category of substance (pure chemical), mixture preparation (mixture of chemicals), Article (whose shape determines its use as leather bags, garments, furniture etc), different obligations apply. As leather goods as shoes, bags, jackets belong to category of article, only obligations related to article apply.

For REACH compliance of articles, both Candidate list SVHC (substance of very high concern) and Restricted substances under ANNEXURE XVII must be complied. SVHC limits are 0.1% per article weight and for RSL different limits exist for different chemicals.

If SVHC is present in articles above 0.1% limit, information must be given to buyers (SVHC name, safe use information and amount of SVHC in shipment) under Article 33 norms.

If RSL chemicals are present above limits goods cannot be shipped.

Under REACH even packaging materials such as plastic bags and cartons are considered as articles and same norms apply.

SVHC Candidate List has undergone several updates since inception and now The European Chemical Agency (ECHA) announced that 20 additional substances have been added to the existing Candidate List, bringing the list to a total of 73 SVHCs (Substances of Very High Concern).<sup>1</sup>

### REACH impact on Leather industry:

Although REACH is a European regulation, it does apply to the chemicals, the leather or the finished products made from it are finally sold on the European market. In the EU region REACH applies more or less to all participants of the supply chain regardless of their status, either as manufacturers, importers, distributors, or retailers. The effects will be felt by everyone who is involved in Europe and will most likely affect parts of the supply chain that are not directly involved in Europe because of the global nature of leather manufacture and tannery suppliers.

With the improvement of people's living standard, consumers are becoming increasingly keen on green, non-

toxic and environmentally friendly consumer goods. This trend for green consumerism has been extended to leather and leather goods that may come into direct and prolonged contact with the human skin such as footwear, gloves, wristwatch, leather belts, purses, wallets, chair / sofa covers, etc. Since the global demand for safe and green products is increasing, manufacturers shall improve product standards to meet those growing demands.

*Because of the global structure of the leather and leather supply industry, and the influence of global retail brands, compliance with REACH will most likely rapidly become a voluntary norm for any leather company worldwide who wants to conduct business in international markets.*

Leather tanning industries is also affected by the new REACH Regulation on chemicals, being an important downstream user of a wide variety of chemical preparations. The sector faces a risk related to the vulnerability of low volume chemicals of critical importance to leather production and products, such as potentially significant reformulation costs, withdrawal from the market and time-to-market problems. However, REACH can also bring business benefits by increasing innovation in leather chemicals.

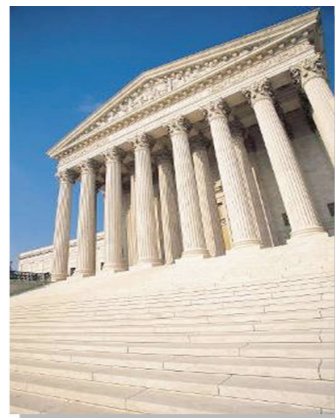
## The key elements of REACH

Registration Substance $\geq 1$ t/yr Sub. in preparation $\geq 1$ t/yr Sub. in Article (intended release) $> 1$ t/yr	Authorization SVHC- manufacturing & use is only allowed when authorization is granted
Evaluation Dossier evaluation Substance evaluation	Restriction Repeal 76/769/EEC restricts dangerous substances on its own, in preparation & in article
Communication in supply chain & Notification Substance of Very High Concern (SVHC) (CMR, PBT / vPvB) listed in Candidate List in ECHA website in the collected articles $> 0.1\%$ - Communicate within the supply chain $> 0.1\%$ & $> 1$ t/y - Notification, if release and toxic - Registration Apply for Authorization if SVHC was found within Annex XIV	

### The Candidate List substances of very high concern

The principle of the Candidate List is that products must be scrutinized for presence of substances of very high concern (SVHC). Currently 73 chemicals listed on the SVHC list that are subject to the requirements of notification. (High Risk SVHCs for leather products in Table 2)

<sup>1</sup> Official Press Release: [http://echa.europa.eu/news/pr/201012/pr\\_10\\_26\\_svhc\\_candidate\\_list\\_20101215\\_en.asp](http://echa.europa.eu/news/pr/201012/pr_10_26_svhc_candidate_list_20101215_en.asp)



Candidate List of 73 SVHC				
Candidate List – 15 SVHCs adopted on 28 October 2008				
Substance Name	EC No. (CAS No.)	Classification	Possible Applications in Textile and Industries	Footwear
Benzyl butyl phthalate (BBP)	201-622-7 (85-68-7)	R, Cat. 2	<ul style="list-style-type: none"> <li>Plasticizer for Polyvinyl chloride, vinyl chloride copolymer, synthetic rubber</li> </ul>	
Bis (2-ethylhexyl) phthalate (DEHP)	204-211-0 (117-81-7)	R, Cat. 2	<ul style="list-style-type: none"> <li>Manufacture of thin film</li> </ul>	
Dibutyl phthalate (DBP)	201-557-4 (84-74-2)	R, Cat. 2	<ul style="list-style-type: none"> <li>Used in synthetic leather</li> </ul>	
4,4'-Diaminodiphenylmethane (MDA)	202-974-4 (101-77-9)	C, Cat. 2	<ul style="list-style-type: none"> <li>Raw materials in the production of azo dyes</li> <li>Cross-linking agents for polyurethane rubber and other synthetic rubber</li> </ul>	
5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	201-329-4 (81-15-2)	vPvB	<ul style="list-style-type: none"> <li>Artificial musk</li> </ul>	
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	287-476-5 (85535-84-8)	PBT vPvB	<ul style="list-style-type: none"> <li>Substitute of major plasticizers</li> <li>Flame retarding ability</li> </ul>	
Cobalt Dichloride	231-589-4 (7646-79-9)	C, Cat. 2	<ul style="list-style-type: none"> <li>Indicator in silica gel desiccant</li> </ul>	
Hexabromocyclododecane (HBCDD)	247-148-4 and 221-695-9 (134237-50-6) (134237-51-7) (134237-52-8)	PBT	<ul style="list-style-type: none"> <li>Flame retardant in polyester, acrylic and Polypropylene</li> <li>Used in polyurethane and polystyrene foam</li> </ul>	
Sodium dichromate	234-190-3 (7789-12-0 and 10588-01-9)	C, Cat. 2 M, Cat. 2 R, Cat. 2	<ul style="list-style-type: none"> <li>Oxidizing agent in sulphur dyeing process</li> <li>Mordant agent in mordant dyeing</li> </ul>	
Bis(tributyltin) oxide (TBTO)	200-268-0 (56-35-9)	PBT	<ul style="list-style-type: none"> <li>Biocides in agriculture</li> <li>Preservative in manufacture of textiles and Paint</li> <li>Catalyst in polymerization</li> </ul>	
Diarsenic pentoxide	215-116-9 (1303-28-2)	C, Cat. 1	<ul style="list-style-type: none"> <li>Manufacture of pesticides, dyes and prints</li> <li>Metal alloy and metallurgical industries</li> </ul>	
Diarsenic trioxide	215-481-4 (1327-53-3)	C, Cat. 1	<ul style="list-style-type: none"> <li>Preparation of arsenic containing pesticides, herbicides and leather preservatives</li> </ul>	
Triethyl arsenate	427-700-2 (15606-95-8)	C, Cat. 1	<ul style="list-style-type: none"> <li>Preservatives in wood and textiles</li> </ul>	
Anthracene	204-371-1 (120-12-7)	PBT	<ul style="list-style-type: none"> <li>Manufacture of dyeing intermediates Anthraquinone and tannin</li> <li>Insecticides, fungicides, gasoline anticoagulation agent</li> </ul>	

Lead hydrogen arsenate	232-064-2 (7784-40-9)	C, Cat. 1 R, Cat. 1	<ul style="list-style-type: none"><li>• Wood preservatives &amp; pesticides (phased out)</li><li>• Not commonly applied in Textile and Footwear Industries</li></ul>
Candidate List – 15 SVHCs adopted on 13 January 2010; revised on 30 March 2010			
Substance Name	EC No. (CAS No.)	Classification	Possible Applications in Textile and Footwear Industries
2,4-Dinitrotoluene	204-450-0 (121-14-2)	C, Cat. 2	<ul style="list-style-type: none"><li>• Manufacture of azo dyes and PU foam</li><li>• Intermediates in the manufacture of Dyestuffs</li></ul>
Anthracene oil	292-602-7 (90640-80-5)	PBT vPvB C, Cat. 2	<ul style="list-style-type: none"><li>• Manufacture of tanning agent intermediate</li><li>• Used in the manufacture of Anthraquinone which is an important intermediate of dyes and pigments</li><li>• Used as insecticides and wood Preservatives</li></ul>
Anthracene oil, anthracene paste, distn, lights	295-278-5 (91995-17-4)	PBT vPvB C, Cat. 2 M, Cat. 2	
Anthracene oil, anthracene paste, anthracene fraction	295-275-9 (91995-15-2)		
Anthracene oil, anthracene-low	292-604-8 (90640-82-7)		
Anthracene oil, anthracene paste	292-603-2 (90640-81-6)		
Diisobutyl phthalate (DIBP)	201-553-2 (84-69-5)	R, Cat. 2	<ul style="list-style-type: none"><li>• Plasticizer for PVC, nitrocellulose, cellulose ether, polyacrylate and polyacetate Dispersion</li><li>• Used in adhesives, binding agents, softeners and viscosity adjusters</li></ul>
Aluminosilicate, Refractory Ceramic Fibres	Index No.: 650-017-00-8	C, Cat. 2	<ul style="list-style-type: none"><li>• Materials for Personal Protective Equipments (PPE) such as heat and fire-protective clothing</li><li>• Applied in carpet backing, theater safety curtains, fiber blankets, fiber paper for high-temperature gaskets and seals</li></ul>
Zirconia Aluminosilicate, Refractory Ceramic Fibres		C, Cat. 2	
Lead chromate	231-846-0 (7758-97-6)	C, Cat. 2 R, Cat. 1	<ul style="list-style-type: none"><li>• Manufacture of pigments and dyes</li></ul>
Lead chromate molybdate sulfate red (C.I. Pigment Red 104)	235-759-9 (12656-85-8)	C, Cat. 2 R, Cat. 1	<ul style="list-style-type: none"><li>• Manufacture of paint and printing inks</li></ul>
Lead sulfochromate yellow (C.I. Pigment Yellow 34)	215-693-7 (1344-37-2)	C, Cat. 2 R, Cat. 1	<ul style="list-style-type: none"><li>• Used in plastic, rubber, paper, textile printing and leather finishing</li></ul>
Tris(2-chloroethyl)phosphate	204-118-5 (115-96-8)	R, Cat. 2	<ul style="list-style-type: none"><li>• Used as flame retardant and plasticizer</li><li>• Used in polyurethane and polyisocyanurate foams, unsaturated polyester resins, PVC, adhesives, elastomers, cellulose acetate, nitrocellulose, epoxy resins and others</li></ul>
Coal tar pitch, high temperature	266-028-2 (65996-93-2)	PBT vPvB C, Cat. 2	<ul style="list-style-type: none"><li>• Raw material of dyestuff synthesis</li><li>• Preservative in wood</li></ul>
Acrylamide	201-173-7 (79-06-1)	C, Cat. 2 M, Cat. 2	<ul style="list-style-type: none"><li>• Manufacture of polyacrylamides and Dyestuffs</li><li>• Used as textile auxiliaries such as hardness agent and dyeing-fix agent, etc.</li></ul>

Candidate List – 8 SVHCs adopted on 18 June 2010				
Substance Name	EC No. (CAS No.)	Classification	Possible Applications in Textile and Industries	Footwear
Trichloroethylene	201-167-4 (79-01-6)	C, Cat. 2	<ul style="list-style-type: none"> <li>• # Cleaning and degreasing agent for metal Parts</li> <li># Solvent carrier for textile desizing sourcing and leather preparation</li> <li># Used in wool scouring process</li> <li># Solvent in adhesives</li> </ul>	
Boric acid	233-139-2 and 234-343-4 (10043-35-3 and 11113-50-1)	R, Cat. 2	<ul style="list-style-type: none"> <li># Biocides and preservatives</li> <li># Manufacturing of rubber</li> <li># Flame retardants</li> <li># Paints</li> <li># Auxiliaries used in leather tanning</li> </ul>	
Disodium tetraborate, anhydrous	215-540-4 (1330-43-4, 12179-04-3 and 1303-96-4)	R, Cat. 2	<ul style="list-style-type: none"> <li># Uses as adhesives</li> <li># Flame retardants</li> <li># Biocides</li> <li># Auxiliaries used in leather tanning</li> </ul>	
Tetraboron disodium heptaoxide, hydrate	235-541-3 (12267-73-1)	R, Cat. 2		
Sodium chromate	231-889-5 (7775-11-3)	C, Cat. 2 M, Cat. 2 R, Cat. 2	<ul style="list-style-type: none"> <li># Manufacture of other chromium compounds</li> <li># Leather tanning</li> <li># Mordant for dyes</li> </ul>	
Potassium chromate	232-140-5 (7789-00-6)	C, Cat. 2 M, Cat. 2	<ul style="list-style-type: none"> <li># Treatment and coating of metals</li> <li># Manufacture of textiles</li> <li># Tanning and dressing of leather</li> <li># Manufacture of pigments/inks</li> </ul>	
Ammonium dichromate	232-143-1 (7789-09-5)	C, Cat. 2 M, Cat. 2 R, Cat. 2	<ul style="list-style-type: none"> <li># Tanning of leather</li> <li># Textiles mordant</li> </ul>	
Potassium dichromate	231-906-6 (7778-50-9)	C, Cat. 2 M, Cat. 2 R, Cat. 2	<ul style="list-style-type: none"> <li># Treatment and coating of metals</li> <li># Tanning of leather</li> <li># Textiles mordant</li> </ul>	
Candidate List – 8 SVHCs adopted on 15 December 2010				
Substance Name	EC No. (CAS No.)	Classification	Possible Applications in Textile and Industries	Footwear
Cobalt(II) sulphate	233-334-2 (10124-43-3)	C, Cat. 2 R, Cat. 2	<ul style="list-style-type: none"> <li>• Used as metal-complex dyes</li> <li>• Drier for paint coating</li> <li>• Used in electroplating</li> </ul>	
Cobalt(II) dinitrate	233-402-1 (10141-05-6)	C, Cat. 2 R, Cat. 2		
Cobalt (II) carbonate	208-169-4 (513-79-1)	C, Cat. 2 R, Cat. 2		
Cobalt(II) diacetate	200-755-8 (71-48-7)	C, Cat. 2 R, Cat. 2		
2-Methoxyethanol	203-713-7 (109-86-4)	R, Cat. 2	<ul style="list-style-type: none"> <li>• Solvent for printing inks, adhesives, varnishes, lacquers, nitrocellulose, acetate fiber, spirit soluble dye and resin</li> <li>• Solvent for dyeing leather</li> </ul>	
2-Ethoxyethanol	203-804-1 (110-80-5)	R, Cat. 2	<ul style="list-style-type: none"> <li>• Solvent for printing inks, adhesives, varnishes, lacquers, waxes, oils, various gums and resins, cellulose acetate, and Nitrocellulose</li> </ul>	
Chromium trioxide	215-607-8 (1333-82-0)	C, Cat. 1 M, Cat. 2		
Group containing:				

Candidate List – 8 SVHCs adopted on 15 December 2010			
		Classification according to	Possible Applications in Textile and Footwear Industries
		1272/2008/EC R, Cat. 1B	<ul style="list-style-type: none"> <li>• Used as adhesive and binding agent</li> <li>• Used for paints, lacquers and varnishes</li> </ul>
		C, Cat. 1B	<ul style="list-style-type: none"> <li>• Used as pigments</li> <li>• Used as corrosion inhibitor</li> </ul>
		R, Cat. 1B	<ul style="list-style-type: none"> <li>• Plasticizer for PVC</li> <li>• Used as transmission adhesive</li> </ul>
		C, Cat. 1B	<ul style="list-style-type: none"> <li>• Manufacture of paints, ink and dyestuff</li> <li>• Used as monomer in polymerization for PU Coating</li> </ul>
			• Solvent for screen printing ink and lacquer
1-Methyl-2-pyrrolidone	-1 (872-50-4)	R, Cat. 1B	<ul style="list-style-type: none"> <li>• Used as thinner to aid coating spray Application\</li> <li>• Degreasing agent</li> </ul>
1,2,3-Trichloropropane	202-486-1 (96-18-4)	C, Cat. 1B R, Cat. 1B	<ul style="list-style-type: none"> <li>• Manufacture of pesticides</li> <li>• Manufacture of chlorinated solvents</li> <li>• Manufacture of cross-linking agent</li> </ul>
,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters (DIHP)	276-158-1 (71888-89-6)	R, Cat. 1B	Plasticizer for PVC Organic thinner for printing inks
Candidate List – 20 SVHCs adopted on 19 December 2011			
SUBSTANCE	CAS / EC NO.	CLASSIFICATION	POSSIBLE USES
4-tert-Octylphenol	140-66-9/ 205-426-2	Ev. C	Rubber/paint: chemical intermediate for vulcanization agent and paint Adhesive: used in the formulation Plastic/rubber: monomer for polymer preparations Textile: auxiliaries
2-Methoxyaniline	90-04-0/ 201-963-1	Carc. 1B	Azo dyes/pigment: Intermediate Ink: tattoo ink Plastic/rubber: constituent of dyed and printed polymers Metal: component in painted and printed metal articles
Arsenic acid	7778-39-4/ 231-901-9	Carc. 1A	Glass: used in the manufacturing process Wood: preservative Textile: desiccant for cotton PCB: used in the production of PCB
Calcium arsenate	7778-44-1/ 231-904-5	Carc. 1A	Metal: used in metallurgical refinement processes to precipitate nickel from molten copper
Trilead diarsenate	3687-31-8/ 222-979-5	Carc. 1A; Repr. 1A	Metal: imported in complex byproducts from smelting and refining of nonferrous metals
1,2-Dichloroethane	107-06-2/ 203-458-1	Carc. 1B	Plastic: used in the production of vinyl chloride monomer Rubber/paint: solvent Adhesive: used in the production step Leather/metal: cleaning
Bis(2-methoxyethyl) ether	111-96-6/ 203-924-4	Repr. 1B	Battery: electrolytes solvent Adhesive/sealant/paint/water-based dyes: used in the formulation Plastic/synthetic rubber: dispersant



Bis(2-methoxyethyl) phthalate	117-82-8/ 204-212-6	Repr. 1B	Plastic: plasticizer for food contact polymers Adhesive: used in high strength adhesives Paint/lacquers/varnish: constituent Printing ink: additive
N,N-dimethylacetamide (DMAC)	127-19-5/ 204-826-4	Repr. 1B	Plastic/rubber/coating: solvent Adhesives: used in the formulation Textile: used in the polymerization reaction of man-made fibre
Formaldehyde, oligomeric reaction products with aniline (technical MDA)	25214-70-4/ 500-036-1	Carc. 1B	Plastic/rubber: as a hardener for epoxy resins and intermediate for high performance polymers
Lead diazide	13424-46-9/ 236-542-1	Repr. 1A	Explosives: used as initiator or booster in detonators for both civilian and military uses and as initiator in pyrotechnic Devices
Lead styphnate	15245-44-0/ 239-290-0	Repr. 1A	Explosives: used as a primer for small calibre and rifle ammunition and used in munitions pyrotechnics, powder actuated devices and detonators for civilian use
2,2'-dichloro-4,4'-methylenedianiline (MOCA)	101-14-4/ 202-918-9	Carc. 1B	Plastic/rubber: used as curing agent, cross-linker, chain extender, pre-polymer for polyurethane elastomers Wood: sealing
Dichromium tris(chromate)	24613-89-6/ 246-356-2	Carc. 1B	Textile: catalyst in the mordanting of yarns Metal: anti-corrosion paint
Potassium hydroxyoctaoxodizincatedi chromate	11103-86-9/ 234-329-8	Carc. 1A	Metal: anti-corrosion paint Sealant: use in the formulation
Pentazinc chromate octahydroxide	49663-84-5/ 256-418-0	Carc. 1A	Metal: anti-corrosive agent for primer paints, wash primers
Phenolphthalein	77-09-8/ 201-004-7	Carc. 1B	Ink/dye: used in disappearing or color-changing inks or dyes
Aluminosilicate Refractory NA Ceramic Fibres (RCF)		Carc. 1B	Ceramic/plastic: used as insulating fiber for industrial furnaces, pipes, ducts and cables Metal: reinforcement
Zirconia Aluminosilicate Refractory Ceramic Fibres (Zr-RCF)	NA	Carc. 1B	Ceramic/plastic: used as insulating fiber for industrial furnaces, pipes, ducts and cables Metal: reinforcement
Lead dipicrate	6477-64-1/ 229-335-2	Repr. 1A	Explosive: used in low amounts in detonator mixtures together with the lead diazide and lead styphnate

Below table states the latest updation of 20 svhcs into candidate list on 19th December 2012

Candidate List – 20 SVHCs adopted on 19 December 2011			
SUBSTANCE	CAS / EC NO.	CLASSIFICATION	POSSIBLE USES
4-tert-Octylphenol	140-66-9/ 205-426-2	Ev. C	Rubber/paint: chemical intermediate for vulcanization agent and paint Adhesive: used in the formulation Plastic/rubber: monomer for polymer preparations Textile: auxiliaries

2-Methoxyaniline	90-04-0/ 201-963-1	Carc. 1B	Azo dyes/pigment: Intermediate Ink: tattoo ink Plastic/rubber: constituent of dyed and printed polymers Metal: component in painted and printed metal articles
Arsenic acid	7778-39-4/ 231-901-9	Carc. 1A	Glass: used in the manufacturing process Wood: preservative Textile: desiccant for cotton PCB: used in the production of PCB
Calcium arsenate	7778-44-1/ 231-904-5	Carc. 1A	Metal: used in metallurgical refinement processes to precipitate nickel from molten copper
Trilead diarsenate	3687-31-8/ 222-979-5	Carc. 1A; Repr. 1A	Metal: imported in complex byproducts from smelting and refining of nonferrous metals
1,2- Dichloroethane	107-06-2/ 203-458-1	Carc. 1B	Plastic: used in the production of vinyl chloride monomer Rubber/paint: solvent Adhesive: used in the production step Leather/metal: cleaning
Bis(2- methoxyethyl) ether	111-96-6/ 203-924-4	Repr. 1B	Battery: electrolytes solvent Adhesive/sealant/paint/water-based dyes: used in the formulation Plastic/synthetic rubber: dispersant
Bis(2- methoxyethyl) phthalate	117-82-8/ 204-212-6	Repr. 1B	Plastic: plasticizer for food contact polymers Adhesive: used in high strength adhesives Paint/lacquers/varnish: constituent Printing ink: additive
N,N- dimethylacetami de (DMAC)	127-19-5/ 204-826-4	Repr. 1B	Plastic/rubber/coating: solvent Adhesives: used in the formulation Textile: used in the polymerization reaction of man-made fibre
Formaldehyde, oligomeric reaction products with aniline (technical MDA)	25214-70-4/ 500-036-1	Carc. 1B	Plastic/rubber: as a hardener for epoxy resins and intermediate for high performance polymers
Lead diazide	13424-46-9/ 236-542-1	Repr. 1A	Explosives: used as initiator or booster in detonators for both civilian and military uses and as initiator in pyrotechnic Devices
Lead styphnate	15245-44-0/ 239-290-0	Repr. 1A	Explosives: used as a primer for small calibre and rifle ammunition and used in munitions pyrotechnics, powder actuated devices and detonators for civilian use
2,2'-dichloro-4,4'-methylenedianiline (MOCA)	101-14-4/ 202-918-9	Carc. 1B	Plastic/rubber: used as curing agent, cross-linker, chain extender, pre-polymer for polyurethane elastomers Wood: sealing
Dichromium tris(chromate)	24613-89-6/ 246-356-2	Carc. 1B	Textile: catalyst in the mordanting of yarns Metal: anti-corrosion paint
Potassium hydroxyoctaoxidizincatedi chromate	11103-86-9/ 234-329-8	Carc. 1A	Metal: anti-corrosion paint Sealant: use in the formulation
Pentazinc chromate octahydroxide	49663-84-5/ 256-418-0	Carc. 1A	Metal: anti-corrosive agent for primer paints, wash primers



Phenolphthalein	77-09-8/ 201-004-7	Carc. 1B	Ink/dye: used in disappearing or color-changing inks or dyes
Aluminosilicate Refractory NA Ceramic Fibres (RCF)		Carc. 1B	Ceramic/plastic: used as insulating fiber for industrial furnaces, pipes, ducts and cables Metal: reinforcement
Zirconia Aluminosilicate Refractory Ceramic Fibres (Zr-RCF)	NA	Carc. 1B	Ceramic/plastic: used as insulating fiber for industrial furnaces, pipes, ducts and cables Metal: reinforcement
Lead dipicrate	6477-64-1/ 229-335-2	Repr. 1A	Explosive: used in low amounts in detonator mixtures together with the lead diazide and lead styphnate

### Communication in the Supply Chain ( Article 33):

Producers, importers and other suppliers of articles containing SVHC included in the Candidate List in a concentration above 0.1% (w/w) have to provide information about the SVHC to the recipients of the articles.

According to Article 33, the information can be automatically provided, or it must be available upon request by consumers, free of charge and within 45 days.

This information shall ensure safe use of the article and as a minimum shall include the name of the substance. The information can be provided by different means to the customer, including in sales literature, on a website or in separate communications

### TABLE 1 : Some HIGH RISK SVHCs found in Leather

The below table contains some more commonly found substances of high concern in leather articles. However this is not meant as a comprehensive list only a guideline.

HIGH RISK SVHC FROM CANDIDATE LIST	EC NO.(CAS NO)	CLASSIFICATION	POSSIBLE APPLICATION(S) IN LEATHER
Benzyl butyl phthalate (BBP)	201-622-7 (85-68-7)	R, Cat. 2	Used as plasticizers in resin and plastics such as PVC
Bis (2-ethylhexyl) phthalate (DEHP)	204-211-0 (117-81-7)	R, Cat. 2	Used in adhesive, printing ink, paint and lacquers
Dibutyl phthalate (DBP)	201-557-4 (84-74-2)	R, Cat. 2	Used in film coating Used in synthetic leather production
Diisobutyl phthalate (DIBP)	201-553-2 (84-69-5)	R, Cat. 2	
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	287-476-5 (85535-84-8)	PBT vPvB	Substitute of major plasticizers Used as flame retardant in textile and rubber Used as fat liquoring agent in leather production Coating for textiles
Tris(2-chloroethyl)phosphate	204-118-5 (115-96-8)	R, Cat. 2	Used as flame retardant in polyurethane foam Used as a plasticizer
Lead chromate	231-846-0 (7758-97-6)	C, Cat. 2 R, Cat. 1	Manufacture of pigments and dyes Used as pigment in plastic colouring, printing and coating
Lead chromate molybdate sulfate red (C.I. Pigment Red 104)	235-759-9 (12656-85-8)	C, Cat. 2 R, Cat. 1	Used in textile printing and leather finishing
Lead sulfochromate yellow (C.I. Pigment Yellow 34)	215-693-7 (1344-37-2)	C, Cat. 2 R, Cat. 1	

Sodium chromate	231-889-5 (7775-11-3)	C, Cat. 2 M, Cat. 2 R, Cat. 2	Used as mordant for dyes and pigments Used in leather tanning Dyeing protein fibres Dye fixing agents in wool to improve colourfastness Used to manufacture colourants in rubber, paper and inks Used in chrome plating to improve corrosion resistance and reflectivity properties
Potassium chromate	232-140-5 (7789-00-6)	C, Cat. 2 M, Cat. 2	
Sodium dichromate	234-190-3 (7789-12-0, 10588-01-9)	C, Cat. 2 M, Cat. 2 R, Cat. 2	
Ammonium dichromate	232-143-1 (7789-09-5)	C, Cat. 2 M, Cat. 2 R, Cat. 2	
Potassium dichromate	231-906-6 (7778-50-9)	C, Cat. 2 M, Cat. 2 R, Cat. 2	

**Remark:**

C = carcinogenic; M = mutagenic; ,

R = toxic for reproduction;

PBT = persistent, bioaccumulative and toxic substances;

vPvB = very persistent and very bioaccumulative substances;

Cat. = Category

**Authorisation. (Annex XIV)**

From Candidate list certain chemicals are chosen for authorization list( Annex XIV). This applies to goods manufactured in Europe. To receive authorization, manufacturer would need to demonstrate that use of the substance can be justified for very specific uses.

This does not apply to imported goods.

Substance Name	EC Number (CAS Number)	Sunset date	Latest application date	Exempted (categories of) uses
Hexabromocyclododecane (HBCDD), alpha-hexabromocyclododecane, beta- hexabromocyclododecane, gamma- hexabromocyclododecane	221-695-9, 247- 148-4 (3194-55-6, 25637-99-4, 134237-50-6, 134237-51-7, 134237-52-8)	21/08/2015	21/02/2014	
Tris(2-chloroethyl)phosphate (TCEP)	204-118-5 (115-96-8)	21/08/2015	21/02/2014	
2,4 – Dinitrotoluene (2,4-DNT)	204-450-0 (121-14-2)	21/08/2015	21/02/2014	
Diarsenic pentaoxide	215-116-9 (1303-28-2)	21/05/2015	21/11/2013	
Lead sulfochromate yellow (C.I. Pigment Yellow 34)	215-693-7 (1344-37-2)	21/05/2015	21/11/2013	
Lead chromate	231-846-0 (7758-97-6)	21/05/2015	21/11/2013	
Diarsenic trioxide	215-481-4 (1327-53-3)	21/05/2015	21/11/2013	
Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	235-759-9 (12656-85-8)	21/05/2015	21/11/2013	
Diisobutyl phthalate (DIBP)	201-553-2 (84-69-5)	21/02/2015	21/08/2013	

Bis(2-ethylhexyl) phthalate (DEHP)	204-211-0 (117-81-7)	21/02/2015	21/08/2013	Uses in the immediate packaging of medicinal products covered under Regulation (EC) No 726/2004, Directive 2001/82/EC, and/or Directive 2001/83/EC.
Benzyl butyl phthalate (BBP)	201-622-7 (85-68-7)	21/02/2015	21/08/2013	Uses in the immediate packaging of medicinal products covered under Regulation (EC) No 726/2004, Directive 2001/82/EC, and/or Directive 2001/83/EC.
Dibutyl phthalate (DBP)	201-557-4 (84-74-2)	21/02/2015	21/08/2013	Uses in the immediate packaging of medicinal products covered under Regulation (EC) No 726/2004, Directive 2001/82/EC, and/or Directive 2001/83/EC.
5-tert-butyl-2,4,6-trinitro-m-xylene (Musk xylene)	201-329-4 (81-15-2)	21/08/2014	21/02/2013	
4,4'-Diaminodiphenylmethane (MDA)	202-974-4 (101-77-9)	21/08/2014	21/02/2013	

Notification: Notification of a substance will be required, by European customers, for Substance of Very High Concern (SVHC) that is included on the “Candidate List” and not already registered for the use.

As of 1 June 2011, producers and importers are required to notify the ECHA when a SVHC in the Candidate List is present in their articles above a concentration of 0.1% (w/w) and in an amount totaling over 1 tonne per year per producer or importer. Notification can lead to a requirement for registration.

### Restrictions on the use of certain substances

Restriction list under Annex XVII of the Reach Regulation replaces the former Directive on the ‘Marketing and Use of Dangerous Substances’. It continues to restrict the use of certain substances in specified uses with certain limits - for example certain azo dyes, Nickel, Lead and Cadmium, nonylphenol ethoxylates etc. This is also a dynamic list with frequent updates

TABLE 2: Annex XVII- Restricted substances						
Restricted Substance	Plastics	Natural Fabric	Synthetic Fabric	Coating Printing	Leather	Metal parts
Azo Dyes		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Total Cadmium	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
Organotin Compounds (TBT/ DBT/ TPhT/ DOT)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Nickel Release (direct and prolonged contact with skin)						<input type="checkbox"/>
Brominated Flame Retardants (PBB, TRIS, TEPA, PentaBDE, OctaBDE) (required if sample treated with Flame Retardants)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			

Chromium (VI)					<input type="checkbox"/>	
Allergenic Disperse dyes			<input type="checkbox"/>			
Formaldehyde		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Pentachlorophenol (PCP)		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
Polycyclic aromatic hydrocarbons (PAHs)	<input type="checkbox"/>			<input type="checkbox"/>		
Carcinogenic Dyes		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Nonylphenol (NPs) & Nonylphenol Ethoxylates (NPEOs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Dimethyl Fumarate (material with skin contact is required if the product is packaged with any form of anti-mold agent)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	
Extractable Heavy Metal Content		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Perfluorooctane sulfonates (PFOS)( if sample declared with stain and water repellent finishing)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	
Chlorinated Organic Carriers (COC)			<input type="checkbox"/>			
Volatile Organic Compounds (VOC)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

#### REACH Restrictions on DMFu

Dimethyl fumarate (DMF) is used to prevent mould growth that can cause deterioration of leather furniture or footwear during storage or transport, especially in a humid climate. DMF is often contained in pouches fixed inside furniture or added to footwear boxes, where it sublimates protecting product from mould. Often, the pouches look similar to those used to contain silica gel, a non-harmful desiccant frequently used in leather products.

The European Commission (EC) published Decision 2012/48/EU on January 26, 2012,

pertaining to the extension of the temporary ban on Dimethylfumarate (DMFu) (CAS 624-49-7). The limit is still set as 0.1 mg/kg for each component part of the article and no transition period is necessary since a ban on DMFu has been in place since 2009.

A pending Commission Decision would amend Regulation (EC) 1907/2006 (REACH)

Annex XVII regarding DMFu, making the current temporary prohibition permanent. The temporary Decision is in place until the final amendment of the REACH Regulation or until March 15, 2013.

## More stringent requirements

Article 67(3)

Until 2013, Member states can maintain its existing and more stringent requirements regarding restrictions.

### General restrictions under Annex XVII

Designation of the substance, of the groups of substances or of the preparation	Conditions of restriction
42. Alkanes, C <sub>10</sub> -C <sub>13</sub> , chloro (short-chain chlorinated paraffins) (SCCPs) EINECS No 287-476-5	Shall not be placed on the market for use as substances or as constituents of other substances or preparations in concentrations higher than 1 %:  — in metalworking. — for fat liquoring of leather.



### More stringent national restrictions (Netherlands)

Designation of the substance, of the group of substances or of the mixture in Annex XVII of REACH	More stringent national provisions	Authorised by the Commission
42. Alkanes, C <sub>10</sub> -C <sub>13</sub> , chloro (short-chain chlorinated paraffins) (SCCPs) EC No 287-476-5 CAS No 85535-84-8	Restriction on the use of short-chain chlorinated paraffins: — as flame retardants in rubber, plastic or textiles; — as plasticisers in paints, coatings or sealants <sup>(1)</sup> .	Commission Decision 2007/395/EC <sup>(2)</sup>

### French position

French authorities on 8th July 2011 published their position on SVHC as once an article, always an article. Other EU countries as Austria, Belgium, Denmark, Germany, Sweden also do not agree with ECHA verdict of SVHC communication per article weight basis, but prefer to monitor SVHCs per component basis. This may result in differences in method of application of Reach Law on the basis of countries into which goods are exported.

### Reach Compliance monitoring by governments and NGOs


Products manufactured in or imported into Europe need to be REACH compliant and different levels of penalties have been imposed by EU Member States for infringements of REACH laws. And strict monitoring is carried by government bodies and NGOs.

NGO	Action on REACH
Friends of the Earth Europe	Provide template letters for consumer to use to request safety information about consumer products from brands or retailers
Friends of the Earth Germany (BUND)	Educating the public through publications to explain the requirement of Article 33 under REACH regulation
Environmental Data Service (ENDS)	Randomly testing consumer products from the market to verify their REACH compliance
Swedish Society for Nature Conservation (SSNC)	Randomly testing consumer products from the market to verify their REACH compliance. The case of retailer failed to provide sufficient information within 45 days according to Article 33 has been formally reported to the Sweden Prosecution Authority
Chemical Watch	Conduct survey on the response of brands and retailers REACH Communication obligation (Article 33)
Oeko-Test	Testing the consumer product in the market and publishing the result in its magazine regularly

Danish Consumer Council	Reported a survey that only 40% of brands meet the requirement of Article 33 which replied within 45 days and 9% did not reply at all
European Environmental Bureau (EEB)	Reported that only 50% of brands and retailers answered requests according to Article 33 requirement from the survey, in which only 22% provided sufficient responses

## Examples – Chromium (VI)

### ■ RAPEX Report 14 -2011

Notifying country	Product	Danger	Measures adopted by notifying country
GERMANY	<p>Category: Clothing, textiles and fashion items</p> <p>Product: Leather wristbands</p> <p>Brand: <b>RICU Design</b></p> <p>Type/number of model: EAN-Code: 4050051671793, Item No 7090.60.30</p> <p>Description: Two leather wristbands in plain, dark brown leather with silver-coloured metal buckles. No packaging.</p> <p>Country of origin: China</p>	<p>Chemical</p> <p>The products pose a chemical risk because the leather part of the wristbands <b>contains chromium VI in a concentration of 11.9 mg/kg and 10.5 mg/kg</b> respectively and, when used as intended, are in contact with the human body for more than a temporary period.</p> <p>In addition to raised toxicity, and carcinogenic properties, chromium VI compounds also have a high allergenic potential (contact allergens).</p> <p>The product does not comply with national legislation.</p>	<p>Voluntary withdrawal from the market and recall from consumers by the manufacturer.</p> 

## Highlighted Member States in REACH Penalty

Member State	Penalties		
	Registration and Notification	Communication	Restriction
France	€75,000 and 2 years of imprisonment	Up to €15,000 and daily periodic penalty payments of €1,500 for failure to comply with all identified requirement of REACH to supply chain	€75,000 and 2 years of imprisonment
Italy	€15,000 – 90,000	€5,000 – €30,000	€40,000 to 150,000 or up to 3 months of prison
The Netherlands	Up to €18,500 and/or 2 years of prison	Up to €740,000 and/or 6 years of prison	Up to €740,000 and/or 6 years of prison
Portugal	€200,000 – 2,500,000	€200,000 – 2,500,000	€30,000 – 48,000
Spain	€85,001 – 1,200,000	€85,001 – 1,200,000	€85,001 – 1,200,000
United Kingdom	Not specified	€5,606 to unlimited and/or 3 months to 2 years of prison	Not specified

Report on penalties applicable for infringement of the provisions of the REACH regulation in the Member States  
<http://ec.europa.eu/environment/chemicals/reach/pdf/report%20REACH%20penalties.pdf>



## New SVHC consultation list

On future updates of Candidate list , 13 new svchs are currently under consultation for addition to candidate list till 12 April 2012.

Substance name	EC number ( CAS number)	Proposed SVHC property	Potential uses *
1,2-bis(2-methoxyethoxy) ethane (TEGDME; triglyme)	203-977-3 (112-49-2)	Toxic for reproduction (Article 57 c)	Mainly used as a solvent or as a processing aid in the manufacture and formulation of industrial chemicals. Minor use in brake fluids and repair of motor vehicles.
1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	203-794-9 (110-71-4)	Toxic for reproduction (Article 57 c)	Mainly used as a solvent or as a processing aid in the manufacture and formulation of industrial chemicals, including use as an electrolyte solvent in lithium batteries.
Diboron trioxide	215-125-8 (1303-86-2)	Toxic for reproduction (Article 57 c)	Used in a multitude of applications, e.g., in glass and glass fibres, frits, ceramics, flame retardants, catalysts, industrial fluids, metallurgy, adhesives, inks/paints, film developers solutions, detergents and cleaners, biocides and insecticides.
Formamide	200-842-0 (75-12-7)	Toxic for reproduction (Article 57 c)	Mainly used as an intermediate. Minor uses as solvent, as reagent chemical (in the pharmaceutical industry) and as laboratory chemical. The substance seems further to be used in the agrochemical industry and as a plasticiser.
Lead(II) bis(methanesulfonate)	401-750-5 (17570-76-2)	Toxic for reproduction (Article 57 c)	Mainly used in plating (both electrolytic and electroless) processes for electronic components (such as printed circuit boards).
TGIC (1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione)	219-514-3 (2451-62-9)	Mutagenic (Article 57b)	Mainly used as a hardener in resins and coatings; also used in inks for the printed circuit board industry, electrical insulation material, resin moulding systems, laminated sheeting, silk screen printing coatings, tools, adhesives, lining materials and stabilisers for plastics.
β-TGIC (1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione)	423-400-0 (59653-74-6)	Mutagenic (Article 57b)	Mainly used as a hardener in resins and coatings; also used in inks for the printed circuit board industry, electrical insulation material, resin moulding systems, laminated sheeting, silk screen printing coatings, tools, adhesives, lining materials and stabilisers for plastics.
4,4'-bis(dimethylamino) benzophenone (Michler's ketone)	202-027-5 (90-94-8)	Carcinogenic (Article 57a)	Intermediate in the manufacture of triphenylmethane dyes and other substances. Further potential uses include as additive (photosensitiser) in dyes and pigments, in dry film products, as a process chemical in the production of electronic circuit boards, in research and development applications.
N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	202-959-2 (101-61-1) (	Carcinogenic (Article 57a)	Intermediate in the manufacture of dyes and other substances. Used also as chemical reagent in research and development.
[4-[4,4'-bis(dimethylamino) benzhydrylidene] cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Violet 3)	208-953-6 (548-62-9)	Carcinogenic** (Article 57a)	Used mainly for paper colouring and inks supplied in printer cartridges and ball pens. Further uses include staining of dried plants, marker for increasing the visibility of liquids, staining in microbial and clinical laboratories.

[4-[[4-anilino-1-naphthyl] [4-(dimethylamino) phenyl]methylene] cyclohexa-2,5- dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26)	219-943-6 (2580-56-5)	Carcinogenic** (Article 57a)	Used in the production of inks, cleaners, and coatings, as well as for dyeing of paper, packaging, textiles, plastic products, and other types of articles. It is also used in diagnostic and analytical applications.
$\alpha,\alpha$ -Bis[4- (dimethylamino) phenyl]-4 (phenylamino) naphthalene-1-methanol (C.I. Solvent Blue 4)	229-851-8 (6786-83-0)	Carcinogenic** (Article 57a)	Mainly used in the production of printing and writing inks, for dyeing of paper and in mixtures such as windscreen washing agents.
4,4'-bis(dimethylamino)- 4''-(methylamino)trityl alcohol	209-218-2 (561-41-1)	Carcinogenic** (Article 57a)	Used in the production of writing inks and potentially in the production of other inks, as well as for dyeing of a variety of materials.

### Summary of obligations

Reach obligations for leather exporters have been condensed for ready reference in below table

TABLE 3 : Summary Obligations of Indian Leather Products Exporter .				
REACH provisions	Limits	Provision	Obligation	Concerns
Information in the supply chain (Article 33)	SVHC in Candidate List $\geq$ 0.1% w/w	SVHC	Provide the recipient of the article with sufficient information to allow safe use of the article.	EU Suppliers
Notification [Article 7(2)]			Notification to ECHA  (Effective from 1 June 2011)	EU importers
Restriction (Annex XVII)	Varies for different chemicals	Restricted Substances	Comply with the conditions outlined in Annex XVII	EU Suppliers

**The Council for Leather Exports has engaged two agencies namely** TUV SUD South Asia and SGS India Pvt. Ltd., for providing REACH related testing to members of the Council on concessional rates. The contact details are given below for reference of members.

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