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REACH Candidate List now 73 SVHCs long

The European Chemicals Agency (ECHA) announced on 19 December 2011 that all 20 Substances of Very High Concern (SVHCs) have been added to the REACH Candidate List.

As previously reported (see [Retail E-ssentials Vol. 35, September 2011](#)), 19 of these substances have carcinogenic, mutagenic and/or toxic to reproduction (CMR) properties, while 4-(1,1,3,3-tetramethylbutyl)phenol, or 4-tert-octylphenol, is the first SVHC that has been included in the Candidate List due to its endocrine disrupting properties causing probable serious effects to the environment. The two refractory ceramic fibres that are included in the Candidate List are the same substances as those included previously in 2008, but this time the substance definitions have been widened to include all types of refractory ceramic fibres used in the European Union (see Table A).

Readers are reminded that certain obligations related to SVHCs on the Candidate List apply. Article suppliers are to take special note that

besides the communication obligation for products containing an SVHC at a concentration > 0.1% (w/w), article manufacturers and importers in the European Union now must also submit a notification to the ECHA if the following two conditions are met:

- Presence of SVHC in articles at a concentration > 0.1% (w/w); and
- Total quantity of the SVHC present in those articles is > 1 tonne/year.

The notification deadline for these 20 SVHCs is 19 June 2012.

A notification is exempted if it can be demonstrated that either the SVHC has been already registered for the same use or its exposure to the environment or human can be excluded. Manufacturers and importers are advised to speak to a TÜV SÜD expert to find out how REACH obligations may impact their businesses in the European Union. ■

Table A: 20 Substances of Very High Concern (SVHCs) Published on 19 December 2011

Substance Name	CAS Number	Potential Uses (as provided by the ECHA)
1,2-Dichloroethane	(CAS 107-06-2)	Mainly used for the manufacture of other substances. Minor uses as solvent in the chemical and pharmaceutical industry, as well as in laboratories.
2,2'-Dichloro-4,4'-methylenedianiline	(CAS 101-14-4)	Mainly used as the curing agent in resins and in the production of polymer articles and also for manufacture of other substances. The substance may further be used in construction and arts.
2-Methoxyaniline; o-Anisidine	(CAS 90-04-0)	Mainly used in the manufacture of dyes for tattooing and coloration of paper, polymers and aluminium foil.
4-(1,1,3,3-Tetramethylbutyl)phenol	(CAS 140-66-9)	Mainly used in the manufacture of polymer preparations and of ethoxylate surfactants. Further used as a component in adhesives, coatings, inks and rubber articles.
Aluminosilicate Refractory Ceramic Fibres	(CAS ---)	Used for high-temperature insulation, almost exclusively in industrial applications (insulation of industrial furnaces and equipment, equipment for the automotive and aircraft/aerospace industry) and in fire protection (buildings and industrial process equipment).
Such fibres are covered by index number 650-017-00-8 in Annex VI, part 3, table 3.1 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, and fulfil the three following conditions:		
a) Oxides of aluminium and silicon are the main components present (in the fibres) within variable concentration ranges		
b) Fibres have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometres (µm)		
c) Alkaline oxide and alkali earth oxide (Na ₂ O+K ₂ O+CaO+MgO+BaO) content less or equal to 18% by weight		

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Substance Name	CAS Number	Potential Uses (as provided by the ECHA)
Arsenic acid	(CAS 7778-39-4)	Mainly used to remove gas bubbles from ceramic glass melt (fining agent) and in the production of laminated printed circuit boards. To lesser extent the substance is also used in the manufacture of semiconductors and as laboratory agent.
Bis(2-methoxyethyl) ether	(CAS 111-96-6)	Used primarily as a reaction solvent or process chemical in a wide variety of applications. Also used as solvent for battery electrolytes, and possibly in other products such as sealants, adhesives, fuels and automotive care products.
Bis(2-methoxyethyl) phthalate	(CAS 117-82-8)	Main uses in the past were as plasticiser in polymeric materials and paints, lacquers and varnishes, including printing inks.
Calcium arsenate	(CAS 7778-44-1)	Present in complex raw materials (which themselves are by-products from metallurgical processes) that are used mainly for copper and lead refining. The substance is used to precipitate nickel from the molten metal and to manufacture diarsenic trioxide. However, most of the substance seems to be disposed of as waste.
Dichromium tris(chromate)	(CAS 24613-89-6)	Mainly used in mixtures for metal surface treatment in the aeronautic/aerospace, steel and aluminium coating sectors.
Formaldehyde, oligomeric reaction products with aniline	(CAS 25214-70-4)	Mainly used for the manufacture of other substances. Minor uses are as ion exchange resins in nuclear power plants, as hardeners for epoxy resins, e.g. for the production of rolls, pipes and moulds, and as well for adhesives.
Lead azide, Lead diazide	(CAS 13424-46-9)	Mainly used as initiator or booster in detonators for both civilian and military uses and as initiator in pyrotechnic devices.
Lead dipicrate	(CAS 6477-64-1)	Lead dipicrate is an explosive like lead diazide and lead styphnate. It may be used in low amounts in detonator mixtures together with the two other mentioned lead compounds.
Lead styphnate	(CAS 15245-44-0)	Mainly used as a primer for small calibre and rifle ammunition. Other common uses are in munition pyrotechnics, powder actuated devices and detonators for civilian use.
N,N-dimethylacetamide	(CAS 127-19-5)	Used as solvent, mainly in the manufacture of various substances and in the production of fibres for clothing and other applications. Also used as reagent, and in products such as industrial coatings, polyimide films, paint strippers and ink removers.
Pentazinc chromate octahydroxide	(CAS 49663-84-5)	Mainly used in coatings in the vehicle coating and aeronautic / aerospace sectors.
Phenolphthalein	(CAS 77-09-8)	Mainly used as laboratory agent (pH indicator solutions). Minor uses are in pharmaceutical preparations and in some special applications (e.g. pH-indicator paper, disappearing inks).
Potassium hydroxyoctaoxidizincatedichromate	(CAS 11103-86-9)	Mainly used in coatings in the aeronautic/ aerospace, steel and aluminium coil coating and vehicle coating sectors.
Trilead diarsenate	(CAS 3687-31-8)	Present in complex raw materials imported for manufacture of copper, lead and a range of precious metals. Trilead diarsenate contained in the raw materials is in the metallurgical refinement process transformed to calcium arsenate and diarsenic trioxide; whereas most of the calcium arsenate appears to be disposed of as waste, the diarsenic trioxide is used further.
Zirconia Aluminosilicate Refractory Ceramic Fibres	(CAS ---)	Used for high-temperature insulation, almost exclusively in industrial applications (insulation of industrial furnaces and equipment, equipment for the automotive and aircraft/aerospace industry) and in fire protection (buildings and industrial process equipment).
Such fibres are covered by index number 650-017-00-8 in Annex VI, part 3, table 3.1 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, and fulfil the three following conditions:		
a) Oxides of aluminium, silicon and zirconium are the main components present (in the fibres) within variable concentration ranges		
b) Fibres have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometres (µm)		
c) Alkaline oxide and alkali earth oxide (Na ₂ O+K ₂ O+CaO+MgO+BaO) content less or equal to 18% by weight		

Additional references:

1. Read the ECHA Press Release including potential uses at http://echa.europa.eu/web/guest/view-article/-/journal_content/a5533137-4976-4054-b8e8-da4a5b3dd623
2. See the official Candidate List at <http://echa.europa.eu/web/guest/candidate-list-table>
3. Read about the Candidate List obligations at <http://echa.europa.eu/candidate-list-obligations>

Hardlines, Electricals & Electronics and Toys & Children's Products

New PAH requirements for GS Mark

Those who are familiar with the voluntary German GS Mark certification may recall that the current requirements on the 16 polycyclic aromatic hydrocarbons (PAHs) were introduced in April 2008. These PAHs are based on the list published by the United States Environmental Protection Agency (US EPA) and all 16 substances are classified as carcinogenic.

On 29 November 2011, the German authority ZLS (Zentralstelle der Länder für Sicherheitstechnik) published the new testing method ZEK 01.4-08¹, which added two new PAHs to the requirements and thus extended the list of PAHs to 18. The new PAHs are:

1. Benzo[e]pyrene (CAS No. 192-97-2)
2. Benzo[j]fluoranthene (CAS No. 205-82-3)

The new requirements on these 18 PAHs will be effective from 1 July 2012 and they are mandatory for all new GS Mark certificates. The scope and concentration limits of the new PAH requirements remain the same. Table B summarises the corresponding actions for GS Mark certificate holders.

In order to ensure a smooth transition to the new requirements, current holders of the TÜV SÜD GS Mark are advised to take note of this effective date and update their test plans without delay.

As a trusted symbol of confidence in safety, the TÜV SÜD Mark now includes these two new PAH requirements in order to reflect the latest state-of-the-art in consumer product safety. Current holders of the TÜV SÜD Mark are similarly advised to take note of this new requirement and to update their test plans accordingly. ■

¹ Download the ZEK 01.4-08 testing method document (in German) from http://www.zls-muenchen.de/de/left/erfahrungsaustausch/doku_pdf/01_4-08_pak.pdf



TABLE B: Actions for GS Mark Certificate Holders

GS Mark Certificate	Compliance with 18 PAHs Requirements
For existing GS Mark certificate	
That will expire before 1 July 2012	No. Only the current 16 PAHs need to be evaluated.
That will expire on or after 1 July 2012	Yes. The 18 PAHs need to be evaluated as part of the factory inspection.
For new issuance of existing GS Mark certificate	
Applicable to any of the following cases: <ul style="list-style-type: none"> ■ Only the trade name is changed ■ Only the relocation of GS Mark certificate owner ■ Secondary certificate (OEM certificate) 	Immediate compliance of the 18 PAHs is not necessary, but compliance must be achieved at the next factory inspection, which must take place by 30 June 2013 at the latest.
For issuance of GS Mark certificate on or after 1 July 2012	
All certificates	Yes.

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