

SAFE GUARDS

SGS CONSUMER TESTING SERVICES

SOFTLINES & HARDLINES

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USAGE OF SHORT CHAIN CHLORINATED PARAFFINS (SCCPs)

SCCPs are a group of man-made chemicals used as plasticizers in flexible PVC, in metal working fluids and other industrial applications. They are yellow oily liquids. SCCPs are toxic to wildlife, long-lasting and build up in the tissues of living organisms. Its usage in the European Union (EU) is governed by REACH. It is a restricted substance on ANNEX XVII and is also classified as a substance of very high concern (SVHC).

Chlorinated paraffins are a complex mixture of polychlorinated n-alkanes and are subdivided according to their carbon chain length into short chain (SCCPs, C10-13), medium chain (MCCPs, C14-17) and long chain (LCCPs, C>17). They are virtually insoluble in water but dissolve fully in most non-polar organic solvents like paraffin oil. SCCPs have a faint odour. They are non-flammable and do not evaporate easily.

USES OF SCCPs

Short chain chlorinated paraffins (SCCPs) can be used as a plasticizer in rubber, paints, adhesives, flame retardants for plastics including vinyl flooring, carpet backing and wire and cable coating. SCCPs also may be used as fatting and softening agents in the leather industry an impregnations agent in the textile industry and as an additive for sealing compounds. They are widely used as an extreme pressure lubricant in metal working fluids.

ENVIRONMENTAL CONCERNS

SCCPs are classified as dangerous to the environment, due to their high toxicity to aquatic organisms, and they may cause long-term adverse effects in the aquatic environment. They are persistent agents which are not easily degraded by natural mechanisms. SCCPs are bioaccumulative substances which accumulate mainly in aquatic animal tissues, and enzymatic disrupters which alter the hormonal system of living beings. Excessive exposure to SCCPs may affect the kidney, liver and thyroid gland, and may cause cancer.

In the EU, the use of SCCPs is restricted in REACH. Regulation (EC) 552/2009, amending ANNEX XVII of REACH, prohibits SCCPs in certain processes and consumer products ¹. The substance is also listed on the 'Candidate List' and has been recommended by the European Chemical Agency (ECHA) for inclusion on ANNEX XIV of REACH (list of substances subject to authorization ²). Its inclusion on the Candidate List may have immediate obligations to communicate in the supply chain. Highlights on these are summarized in Table 1.

¹Commission Regulation (EC) 552/2009 of 22 June 2009 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as regards Annex XVII; [MORE](#)

²Candidate List of Substances of Very High Concern for Authorization and references therein, ECHA; [MORE](#)

The logo for SGS, consisting of the letters 'SGS' in a bold, sans-serif font, with a vertical line to the right of the letters and a horizontal line below the letters.

Table 1

Substance	Citation	Remark
Alkanes, C10-C13, chloro (short-chain chlorinated paraffins)	Regulation (EC) 552/2009 amending REACH as regards ANNEX XVII	Placing on the market, or use as substances, or as constituents of other substances or in where the substance or mixture with a SCCP contents of >1% and is intended for <ul style="list-style-type: none"> metalworking fat liquoring of leather
	SVHC Candidate List for Authorization	Communication in the supply chain in case >0.1% in substance, preparation, and article Notification with ECHA in case >0.1% in substance, preparation, and article and if imported >1 tonne/year in EU member states for legal entity
	Recommendation of the European Chemicals Agency (ECHA) of 1 June 2009 for the inclusion of substances in ANNEX XIV of REACH ³	Sunset date Date of inclusion in ANNEX XIV + 45 months Exemption Other usage as described by ANNEX XVII

³ Recommendation of the European Chemicals Agency (ECHA) of 1 June 2009 for the inclusion of substances in ANNEX XIV (the list of substances subject for authorization) of Regulation (EC) 1907/2006; [MORE](#)

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