

Reclassification of Styrene and the Influence on UP/VE resins (Date: 2011 09 12)

Since June 2007, the REACH legislation has been in force. The main aim of REACH is to ensure the safe use of chemicals for workers, consumers and the environment. The REACH legislation puts the responsibility on industry and imposes obligations on all parties in the supply chain. The styrene manufacturers/importers have registered styrene and have started to send out the new extended Safety Data Sheets (eSDS).

In parallel with the REACH legislation, the Globally Harmonized System (GHS) for Classification and Labelling of hazardous substances and mixtures is being introduced worldwide. GHS has been implemented in the EU by means of the new European Regulation on Classification, Labelling and Packaging (CLP) of chemical substances and mixtures (Regulation EC No. 1272/2008). CLP introduces revised criteria for hazard classification, new guidelines for safety data sheets, product labels and transport information.

As a result of REACH and CLP, industry has now entered the phase in which new information must be provided to downstream users.

The Cefic¹ UPR sector group would like to update you on the new classification of styrene and possible impact on the classification of Unsaturated Polyester, Vinyl Ester resins and formulated products (UP/VE Resins) before providing you with more detailed information through updated product SDS.

The Styrene producers organized in the REACH Styrene consortium recently proposed a re-classification for Styrene. That resulted in additional Hazard Statements viz. R48/20 (harmful: danger of serious damage to health by prolonged exposure through inhalation) and R65 (harmful: may cause lung damage if swallowed).

As most UP/VE resins are mixtures containing greater than 10% styrene, this new classification of styrene will be directly applied to the classification of UP/VE Resins and the manufacturers have started the process of updating their SDS.

¹ CEFIC is the European Chemical Industry Council

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The styrene consortium also proposed a Derived No Effect Level (DNEL) for worker inhalation exposure of 20 ppm as an 8-hour time-weighted average in their REACH dossier. Under REACH legislation, a DNEL is the new threshold for safe use of substances. It is expected that this DNEL may be used as a basis for harmonisation of Occupational Exposure Limits (OELs) across the EU. The timing for this process is not yet determined.

Currently, styrene OELs in Europe range from 20 ppm to 100 ppm depending on the country. Adapting installation to respect the recommended 20 ppm DNEL may require investment or update of procedures which could take time to implement. The Cefic UP/VE Resin Safe Handling Guides (see <http://www.upresins.org/safe-handling-guides>.) provide relevant information on best practices, operating conditions, and risk management measures to control exposure through the use of low styrene emission resins (LSE), low styrene content (LSC) resins, workplace ventilation, safe work practices, and personal protective equipment.

It has been demonstrated that workers can safely work with styrene when using recommended protective equipment and by limiting possible exposure to emissions.

In case of questions, please contact your supplier.

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