**Di-Isocyanate Regulations**

Commission Regulation 2020/1149 amending Annex XVII to Regulation (EC) 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as regards diisocyanates

Diisocyanates have been restricted under REACH.

On 3 August 2020, [Commission Regulation (EU) 2020/1149 amending Annex XVII to Regulation (EC) 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as regards diisocyanates](https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32020R1149&from=EN&_cldee=Y2Fyb2xpbmUucmFpbmVAZ21haWwuY29t&recipientid=lead-7bcefcd4c0e0e71180fa005056952b31-b0fc97863d584b29aead2c97d1db61de&esid=6ffce330-8adc-ea11-8121-005056952b31) was published.

The regulation means that diisocyanates have been restricted under REACH. Diisocyanates should not be used on their own or as a constituent in other substances or in mixtures for industrial and professional uses in concentrations above 0.1% by weight after 24 August 2023. Placing on the market will be restricted earlier — as of 24 February 2022.

According to the European Commission *“Diisocyanates have a harmonised classification as a respiratory sensitiser category 1 and as a skin sensitiser category 1 according to Regulation (EC) 1272/2008 of the European Parliament and of the Council. Diisocyanates are used as chemical building blocks in a wide range of sectors and applications, in particular in foams, sealants and coatings, inter alia, throughout the Union.*

*On 6 October 2016, Germany submitted to the European Chemicals Agency (‘the Agency’) a dossier pursuant to Article 69(4) of Regulation (EC) 1907/2006 (‘the Annex XV dossier’), in order to initiate the restriction procedure set out in Articles 69–73 of that Regulation. The Annex XV dossier indicated that respiratory sensitisation, due to both dermal and inhalation exposure to diisocyanates, leads to occupational asthma in workers, which has been identified as a significant occupational health problem in the Union. The annual number of new occupational diseases caused by diisocyanates (estimated to be more than 5000 cases) is considered unacceptably high. The Annex XV dossier demonstrated that action on a Union-wide basis is necessary and proposed to restrict the industrial and professional use, as well as the placing on the market, of diisocyanates on their own, and as constituent of other substances and in mixtures.*

*The restriction proposed in the Annex XV dossier aims to limit the use of diisocyanates in industrial and professional applications to those cases where a combination of technical and organisational measures are implemented, and a minimum standardised training course has been followed. Information on how to get access to the course should be communicated throughout the supply chain and it should be the responsibility of the operators placing these substances and mixtures on the market to ensure that training courses are available to the recipients of such substances or mixtures.”*

The regulation amends ANNEX XVII of the REACH regulation and restricts the use of diisocyanates as substances on their own, as a constituent in other substances or in mixtures for industrial and professional use after 24 August 2023 unless:

* the concentration of diisocyanates individually or in combination is less than 0.1% by weight
* the employer or self-employed ensures that industrial or professional user(s) have successfully completed training on the safe use of diisocyanates prior to the use of the substance(s) or mixture(s).

It also states that they shall not be placed on the market as substances on their own, as a constituent in other substances or in mixtures for industrial and professional use(s) after 24 February 2022, unless:

* the concentration of diisocyanates individually and in combination is less than 0.1% by weight
* the supplier ensures that the recipient of the substance(s) or mixture(s) is provided with information on the requirements referred to in point (b) of paragraph 1 and the following statement is placed on the packaging in a manner that is visibly distinct from the rest of the label information: “As from 24 August 2023, adequate training is required before industrial or professional use”.

The training is mandatory by 23 August 2023 and may be given online but must consist of:

* General training on:
  + chemistry of diisocyanates
  + exposure to diisocyanates
  + occupational exposure limit values
  + how sensitisation can develop
  + odour as indication of hazard
  + importance of volatility for risk
  + viscosity, temperature, and molecular weight of diisocyanates
  + personal hygiene
  + personal protective equipment needed including practical instructions for its correct use and its limitations
  + risk of dermal contact and inhalation exposure
  + risk in relation to application process used
  + skin and inhalation protection scheme
  + ventilation
  + cleaning, leakages, maintenance
  + discarding empty packaging
  + protection of bystanders
  + identification of critical handling stages
  + specific national code systems (if applicable)
  + behaviour-based safety
  + certification or documented proof that training has been successfully completed
* Intermediate level training on:
  + specific personal protective equipment needed and its limitations
  + behaviour-based aspects
  + maintenance
  + management of change
  + evaluation of existing safety instructions
  + risk in relation to application process used
  + certification or documented proof that training has been successfully completed
* Advanced training on:
  + any additional certification needed for the tasks that are covered
  + spraying outside a spraying booth
  + open handling of hot or warm formulations (>45°C)
  + certification or documented proof that training has been successfully completed.

The following uses must be covered:

* handling open mixtures at ambient temperature (including foam tunnels)
* spraying in a ventilated booth
* application by roller
* application by brush
* application by dipping and pouring
* mechanical post treatment (eg cutting) of not fully cured articles which are not warm anymore
* cleaning and waste
* any other uses with similar exposure through the dermal and/or inhalation route
* handling incompletely cured articles (eg freshly cured, still warm)
* foundry applications
* maintenance and repair that needs access to equipment
* open handling of warm or hot formulations (>45°C)
* spraying in open air, with limited or only natural ventilation (includes large industry working halls) and spraying with high energy (eg foams, elastomers)
* and any other uses with similar exposure through the dermal and/or inhalation route.

Training must be repeated every five years. Companies have until 23 August 2023; this is to allow industry to implement training plans, and many trade associations have now created training packages for companies