

# Understanding the safe handling of diisocyanates

A guide to help FeRFA  
Members remain REACH  
Compliant

## **Understanding the Safe Handling of Diisocyanates**

A useful guide for FeRFA Members

As part of our commitment to promoting safety and compliance within the commercial and industrial resin flooring industries, FeRFA seeks to provide valuable information on the safe handling of diisocyanates in accordance with **REACH**.

We have created this guide in order to help you, your business and your team to stay ahead and compliant in the face of evolving regulations.

### **Understanding the REACH Regulation:**

**REACH** is the European regulation on the Registration, Evaluation, Authorisation, and Restriction of Chemicals and is designed to safeguard human health and the environment from potential risks posed by chemicals.

On 4 February 2020, the REACH Committee (established under REACH, consisting of representatives of the Member States and the EU Commission) voted in favour of the European Commission's proposal for a REACH restriction on diisocyanates. The Restriction was published on 4 August 2020, and **will apply from 24 August 2023 after a transition period of 3 years**. This restriction has been adopted by UK authorities under GB REACH.

The Restriction on Diisocyanates is available in all official EU languages [here](#).

**As of August 24, 2023, training will be mandatory for professional and industrial users of products with a diisocyanate concentration of 0.1% by weight or above.** It does not apply to products with very small residual amounts (< 0.1%) of diisocyanates.

### **Understanding affected products:**

Polyurethane products, such as adhesives and coatings, are made through a chemical fusion of diisocyanates and polyols. **Diisocyanates possess a high level of reactivity, necessitating meticulous care during their handling to prevent any adverse reactions in humans.** However, when managed in accordance with robust risk management practices and stringent health and safety measures, diisocyanates are perfectly safe to use within resin flooring applications.

### **Cured Products:**

The REACH Regulation does not apply to cured products or products with very small residual amounts (<0.1%) of diisocyanate. It is essential to recognise that diisocyanates are reactive chemicals that play a pivotal role in the production process of polyurethane products. They undergo complete consumption during the reaction, resulting in cured materials that contain minimal traces of diisocyanates. Therefore, you can confidently assure your clients and workforce that the cured flooring systems exhibit negligible diisocyanate content, emphasising their safety.

### **Key Points to Know:**

**From August 24, 2023,** all commercial and industrial users must undergo training on the safe use of diisocyanates before using any products containing diisocyanates to ensure compliance.

**Diisocyanates shall not be used as substances on their own, as a constituent in other substances or in mixtures for industrial and professional use(s) after 24 August 2023, unless:**

- (a) the concentration of diisocyanates individually and in combination is less than 0,1 % by weight, or
- (b) 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).

### **Safety Data Sheets:**

It is vital to review the safety data sheets provided by manufacturers for products containing diisocyanates. These sheets outline essential precautions and protective measures to be followed during handling and processing.

### **Product Labelling:**

Affected products should feature labels indicating the requirement for adequate training prior to their industrial or professional use. It is crucial to ensure that your workforce is aware of these labels and understands their significance.

### **Documentation:**

Employers or self-employed individuals are responsible for ensuring that their industrial or professional users have successfully completed the required training. Maintaining documentation of training completion is crucial, and training renewal should occur at least every five years.

### **Training Requirements:**

Training focuses on application-specific knowledge rather than product-specific details. It covers the safe handling of diisocyanates and is categorised into three levels based on the workplace activity.

There is no requirement for an accreditation or certification scheme to be put in place for the training. Training will need to be adequate, appropriate to the use of the substance (which includes any specific circumstances as to where it is used i.e. in GB) and in line with the restriction.

**General training is a minimum requirement and intermediate or advanced training may be required depending on the activities undertaken. This [matrix](#) will help you to select the right training course.**

### **Training Options:**

The manufacturers of diisocyanates have developed a web-based e-learning module in cooperation with the associations of downstream users of such products. This may be used to successfully complete the training easily and cost-effectively. **Discover the training [by clicking here](#).**

The training can be completed through various methods, including web-based e-learning modules, classroom training, or virtual/face-to-face sessions conducted by external trainers.

The training elements are divided into general requirements, intermediate requirements and advanced requirements.

Training for general requirements is always required for any type of professional or industrial use. Depending on the use and exposure risk, intermediate level or advanced level training may be required.

If workers come into contact with the relevant products in two or more applications, it is advisable to choose the most comprehensive training course.

#### **Some suggested options include:**

**045 - General Training**

**005 - Application by brush or roller, open mixtures, cleaning and waste**

**050 Application of Polyurethane products in the construction sector -**

High pressure injection resins (for those users involved in resin injection operations)

For any additional questions or concerns regarding the safe handling of diisocyanates and compliance with REACH, please reach out to [FeRFA Support](#).

We are here to provide support and guidance to ensure the well-being of your workforce and adherence to regulatory requirements. By prioritising safety and compliance, we collectively maintain high standards within the resin flooring industry.

Let us continue working together to promote a safe and sustainable working environment.

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