

TECHNOMELT®

**Who wants
sustainable
solutions?**

That's ME!

Micro Emission Factsheet

**ALL YOU NEED TO KNOW ABOUT:
REACH RESTRICTIONS ON DIISOCYANATES**



24 August 2023

is when training requirements for the industrial use of diisocyanates come into force

< 0.1 %

BUT – adhesives with less than 0.1 % diisocyanate concentration are exempt

2 %

Adhesives account for 2 % of the European chemical industry's turnover

Furniture, construction and automotive

are the industries with the biggest demand for PUR Hotmelts

5 million tons

The furniture industry's annual use of adhesives and sealants (FEICA)

WHAT ARE DIISOCYANATES?

- Diisocyanates are a basic component of Polyurethane (PUR) Hotmelt adhesives
- These compounds react with moisture in the air during the curing process, cross-linking strongly and permanently. Without this, the adhesive would melt if subjected to high temperatures again
- This is why PUR Hotmelts are valued for their high temperature tolerance as well as strength, flexibility, moisture tolerance and wide substrate compatibility
- PUR Hotmelts are also low-VOC and do not contain solvents
- The furniture industry is one of their biggest users
- What dangers do diisocyanates present?
 - Diisocyanates are hazardous. They can cause sensitization through skin contact or inhalation, as well as skin and eye irritation
 - Sensitized workers are at risk of severe asthma attacks if exposed again
 - But – the risk can be minimized with proper and consistent safety measures, such as information provision, product labeling and safety training
 - Your responsibilities here are increasing. The 'REACH restriction on diisocyanates' – a new EU-wide regulation requiring labeling and training across all professional uses of diisocyanate-based products – comes into force soon.

MY COMPANY USES DIISOCYANATE PRODUCTS. WHAT DO I NEED TO DO?

- You can continue to use them only if you comply with the REACH restriction on diisocyanates
- By **24 February 2022**, adhesive suppliers need to ensure that any product containing more than 0.1 % diisocyanates must include the following phrase on its packaging:
 - *As of 24 August 2023, adequate training is required before industrial or professional use of this product*
- Then, **all industrial users** of these products must complete training on the safe use of diisocyanates
- Three levels of training are being implemented. Furniture manufacturers will need to provide the **most advanced level of training**
- There is now an online Training Platform where training materials can be downloaded. The training is modular, and you need to select the modules that apply to your use case
- This could include:
 - Chemistry and hazards of diisocyanates
 - Occupational exposure limit values
 - PPE requirements
 - Additional behavior-based training
 - Equipment maintenance
 - Evaluation of existing procedures
 - Handling of warm or hot formulations
 - Additional training for specific applications

IS THERE ANY ALTERNATIVE TO USING DIISOCYANATES?

- Diisocyanates are an essential component of polymers – but if they are only present at low concentrations, they do not present a risk
- Any PUR hotmelt with diisocyanate concentration below 0.1% is classed as non-hazardous – and therefore exempt from the labeling and training requirement
- These products are available in our range. They are what we call Micro Emission (ME) adhesives
- ME products cover many applications, and can be run on the same line as conventional PUR Hotmelts with comparable performance
- Check out some of our range below

OUR KEY MICRO EMISSION PRODUCTS

TECHNOMELT PUR 270/9 ME
– for edge banding, straight line, softforming

TECHNOMELT PUR 4655 ME
– for surface and assembly bonding

TECHNOMELT PUR 4688 ME
– for lamination

TECHNOMELT PUR 6350 ME
– for profile wrapping

WANT TO FIND OUT MORE?

Access the Training Platform: www.safeusediisocyanates.eu
Latest information from FEICA, the adhesives industry body: www.feica.eu

NEED ADVICE?

Contact us at:
www.henkel-adhesives.com/microemission.html