

Safety  
first

Regulations

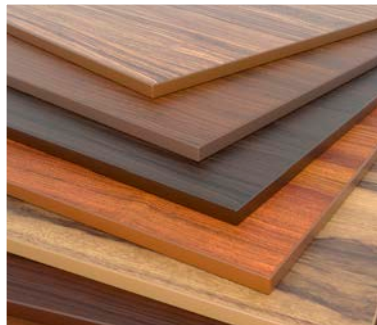
**WORK  
SAFETY**

Protection

Health

# Diisocyanates

## Things to consider in future



Information regarding the future handling of adhesives containing diisocyanate

How reactive hot melt adhesives can still be used

Alternatives available

# Health



# How PUR hot melt adhesives can be used in future

**Risk reduction to a minimum plays a central part in the handling of chemicals. When reactive hot melt adhesives based on polyurethane (PUR) are processed, the ambient humidity triggers a chemical reaction with the isocyanate groups, so-called diisocyanates, in the adhesive. The manufacture, use and application of monomeric diisocyanates is regulated by the Risk Assessment of the TRGS (Technical Rules for Hazardous Substances).**

For many years, Jowat has been developing and manufacturing reactive hot melt adhesives for the most different fields of application.

Reactive hot melt adhesives from the Jowatherm-Reaktant® product group have been at the cutting edge of permanent and superior bonding. An important building block of those reactive hot melt adhesives is monomeric diisocyanate. The processing of adhesives containing isocyanate has always been coupled with precautionary measures for the protection of the processor and the user.


Since 2012 and on the initiative of the German Federal Institute for Occupational Safety and Health (BAuA), REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) has been developing ideas on how quality standards and occupational safety can be best combined in

future to ensure an appropriate level of safety in the workplace.

Based on the latest decision, the commercial processing of products containing diisocyanate will still be possible in the future. The condition for this is a regular training and qualification of the processor and user on the safe handling of products containing diisocyanates.



# Diisocyanates

	PUR	PUR MR
Isocyanate content [%]	> 0.1	< 0.1
Labelling	 <p> <b>H332</b> Harmful if inhaled.  <b>H334</b> May cause allergy or asthma symptoms or breathing difficulties if inhaled.  <b>H317*</b> May cause an allergic skin reaction.  <b>H351*</b> Suspected of causing cancer.         </p>	<p> <b>EUH204</b> Contains isocyanates.            May produce an allergic reaction.         </p>
Training	Yes	No
Additional costs	Yes**	No

\* Only if isocyanate content > 1 %

\*\* Personnel costs; external trainer if necessary.

## Jowatherm-Reaktant® MR - Top performance & hazard-free labelling

For all those who want to avoid the need for additional training and save the associated costs and personnel expenses in future, Jowat has been developing the Jowatherm-Reaktant® MR product group.

The adhesives with a reduced monomer content from the Jowatherm-Reaktant® MR series contain less than 0.1 % monomeric diisocyanate by weight. Therefore, they are not subject to hazard labelling (H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled) according to the latest EU Regulation (EC 1272/2008 and the related amending regulation EC 790/2009) (see table above). Hence, the training is no longer necessary and possible health risks during processing are eliminated.

Jowat has developed monomer-reduced versions of many conventional PUR hot melt adhesives that have so far been used in different applications. Don't hesitate to contact us. We will support you address these questions.



**Jowat | Ihr Partner in Sachen Kleben**  
**Jowat | Your Partner in bonding**



The information given in this leaflet is based on test results from our laboratories as well as on experience gained in the field, and does in no way constitute any guarantee of properties. Due to the wide range of different applications, substrates, and processing methods beyond our control, no liability may be derived from these indications nor from the information provided by our free technical advisory service. Before processing, please request the corresponding data sheet and observe the information in it! Customer trials under everyday conditions, testing for suitability at normal processing conditions, and appropriate fit-for-purpose testing are absolutely necessary. For the specifications as well as further information, please refer to the latest technical data sheets.

**Jowat – Kleben erster Klasse**  
**Jowat – first class bonding**

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