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1 Identification of the substance / preparation and of the company

Product: Buehler EpoMix Hardener
Article number: 20-8133-xxx
Registration number: not applicable
Use: Epoxy activator
Identified use: none
Method of operation: See product information.
Company: Buehler GmbH
 In der Steele 2
 D-40599 Düsseldorf (Germany/Allemagne)

Phone: 0800 707 6273
Fax: 0800 707 6274
Homepage: www.buehler-met.de/en/
E-mail: sales@buehler.co.uk
Emergency phone: 0800 707 6273 (Only valid if dialled within the UK)
Responsible: Simonavicius@chemiebuero.de

2 Hazards identification

Physico-chemical hazards: See chapter 10.
Human health dangers: See R-phrases.
Environmental hazards: See R-phrases.
Other hazards: none
Hazard symbols:



Corrosive



Dangerous for the environment

R-phrases: R 40: Limited evidence of a carcinogenic effect.
 R 68: Possible risk of irreversible effects.
 R 34: Causes burns.
 R 43: May cause sensitisation by skin contact.
 R 51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3 Composition / Information on ingredients

2,2'-Iminodiethylamine	10 - < 25%
C, R21/22-34-43 CAS: 111-40-0, EINECS/ELINCS: 203-865-4, EU-INDEX: 612-058-00-x, ECBnr:	
Triethylenetetramine	20 - 40%
C, R21-34-43-52/53 CAS: 112-24-3, EINECS/ELINCS: 203-950-6, EU-INDEX: 612-059-00-5, ECBnr:	
Reaction product: bisphenol-A-(epichlorhydrin) Epoxy resin (number average molecular weight \leq 700	80 - < 100%
Xi-N, R36/38-43-51/53 CAS: 25068-38-6, EINECS/ELINCS: 500-033-5, EU-INDEX: 603-074-00-8, ECBnr:	
Propylidynetrimethanol, propoxylated, reaction products with ammonia	25 - < 50%
C, R21/22-34 CAS: 39423-51-3, EINECS/ELINCS: 500-105-6, EU-INDEX: , ECBnr:	
Butyl 2,3-epoxypropyl ether	10 - < 20%
Xn, R10-20/22-37-40-43-52/53-68 CAS: 2426-08-6, EINECS/ELINCS: 219-376-4, EU-INDEX: 603-039-00-7, ECBnr:	
For the wording of the listed risk phrases refer to section 16.	



4 First aid measures

General information:	Remove contaminated soaked clothing immediately and dispose of safely.
Inhalation:	Ensure supply of fresh air. In the event of symptoms seek for medical treatment.
Skin contact:	In case of contact with skin wash off immediately with soap and water. Consult a doctor if skin irritation persists.
Eye contact:	In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.
Ingestion:	Consult a doctor immediately. Do not induce vomiting. Rinse out mouth and give plenty of water to drink.
Advice to doctor:	Treat symptomatically.

5 Fire-fighting measures

Suitable extinguishing media:	Carbon dioxide. Foam. Water spray jet. Dry powder.
Extinguishing media that must not be used:	Full water jet.
Special exposure hazards arising from the substance or preparation itself or combustion products:	Unknown risk of formation of toxic pyrolysis products.
Special protective equipment for firefighters:	Use self-contained breathing apparatus. Wear full protective suit.
Additional information:	Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.

6 Accidental release measures

Personal precautions:	Ensure adequate ventilation. High risk of slipping due to leakage/spillage of product.
Environmental precautions:	Prevent spread over a wide area (e.g. by containment or oil barriers). Do not discharge into the drains/surface waters/groundwater.
Methods for cleaning up:	Pick up with absorbent material (e.g. sand, sawdust, universal absorbent, diatomaceous earth). Dispose of absorbed material in accordance within the regulations.

7 Handling and storage

Advice on safe handling:	Use only in well-ventilated areas. No special measures necessary if used correctly.
Advice on protection against fire and explosion:	No special measures necessary.
Requirements for storage rooms and vessels:	Keep only in original container.
Advice on storage compatibility:	Do not store together with oxidizing agents.
Further information on storage conditions:	Keep container tightly closed. Keep container in a well-ventilated place.

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8 Exposure controls / personal protection

Additional advice on system design: Ensure adequate ventilation on workstation.

Ingredients with occupational exposure limits to be monitored: (GB)

2,2'-Iminodiethylamine	10 - < 25%
1ppm*, 4,3mg/m ³ *, General remarks: Sk	
* LTEL: Long-term exposure limit	

Respiratory protection: not applicable

Hand protection: Nitrile, >480 min (EN 374).

Eye protection: Safety glasses.

Skin protection: Light protective clothing of plastic material.

General protective measures: It is essential for pregnant women to avoid inhaling the product and not to let it come in contact with the skin.

Avoid contact with eyes and skin.

Do not inhale vapours.

Hygiene measures: Do not eat, drink, smoke or take drugs at work.

Remove soiled or soaked clothing immediately.

Use barrier skin cream.

After worktime and before work breaks the affected skin areas must be thoroughly cleaned.

Delimitation and monitoring of the environmental exposition: not determinated

9 Physical and chemical properties

Form:	liquid
Color:	yellow
Odor:	ammoniac-like
pH-value:	alkaline
pH-value [1%]:	not determinated
Boiling point [°C]:	83-207
Flash point [°C]:	118
Flammability [°C]:	not determinated
Lower explosion limit:	not applicable
Upper explosion limit:	not applicable
Oxidizing properties:	no
Vapour pressure [kPa]:	not determinated
Density [g/ml]:	1,0363
Density at [°C]:	20°C
Bulk density [kg/m³]:	not applicable
Solubility in water:	partially miscible
Partition coefficient [n-octanol/water]:	not determinated
Viscosity:	not applicable
Relative vapour density determined in air:	not determinated
Evaporation speed:	not determinated
Melting point [°C]:	not determinated
Autoignition temperature [°C]:	not applicable
Decomposition temperature [°C]:	not determinated

10 Stability and reactivity

Hazardous reactions: Reactions with acids and strong oxidizing agents.

Hazardous decomposition products: No hazardous decomposition products known.

11 Toxicological information

Acute oral toxicity:	not determined
Acute dermal toxicity:	not determined
Acute inhalational toxicity:	not determined
Irritant effect on eye:	not determined
Irritant effect on skin:	not determined
Sensitization:	not determined
Subacute toxicity:	not determined
Chronic toxicity:	not determined
Mutagenicity:	not determined
Reproduction toxicity:	not determined
Carcinogenicity:	not determined
Experiences made in practice:	none
General remarks:	Toxicological data are not available. The product was classified on the basis of the calculation procedure of the preparation directive.




12 Ecological information

Fish toxicity:	not determined
Daphnia toxicity:	not determined
Behaviour in environment compartments:	not determined
Behaviour in sewage plant:	not determined
Bacteria toxicity:	not determined
Biological degradability:	not determined
COD:	not determined
BOD 5:	not determined
AOX-advice:	The product contains organically bound halogen in accordance with the formulation.
2006/11/EC:	yes
General information:	The product was classified on the basis of the calculation procedure of the preparation directive.

13 Disposal considerations



Disposal / Product:	Disposal in an incineration plant in accordance with the regulations of the local authorities. Dispose of as hazardous waste.
Disposal / Contaminated packaging:	Packaging that cannot be cleaned should be disposed of as for product. Uncontaminated packaging may be taken for recycling.
Waste no. (recommended):	080409*

14 Transport information

Classification according to ADR:	UN 2735 Amines, liquid, corrosive, n.o.s. (Triethylenetetramine, 3-Azapentan-1,5-diamine) 8, III
- Classification Code:	C7
- ADR Limited Quantities:	LQ7: 5l
- Label:	
Classification according to IMDG:	UN 2735 Amines, liquid, corrosive, n.o.s. (Triethylenetetramine, 3-Azapentan-1,5-diamine- mixture) 8 III
- IMDG Limited Quantities:	LQ: 5 l
- EMS:	F-A, S-B
- Label:	
Classification according to IATA:	UN 2735 Amines, liquid, corrosive, n.o.s. (Triethylenetetramine, 3-Azapentan-1,5-diamine- mixture) 8 III
- Label:	



15 Regulatory information

Exposure scenario:	not applicable
Chemical safety report:	not applicable
Labelling:	The product is classified and labelled in accordance within EC-directives.
Hazard symbols:	 
	Corrosive Dangerous for the environment
Contains:	<ul style="list-style-type: none"> - Propylidynetrimethanol, propoxylated, reaction products with ammonia - Triethylenetetramine - Butyl 2,3-epoxypropyl ether - 2,2'-Iminodiethylamine - Reaction product: bisphenol-A-(epichlorhydrin) Epoxy resin (number average molecular weight ≤ 700)
R-phrases:	<p>R 40: Limited evidence of a carcinogenic effect.</p> <p>R 68: Possible risk of irreversible effects.</p> <p>R 34: Causes burns.</p> <p>R 43: May cause sensitisation by skin contact.</p> <p>R 51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.</p>
S-phrases:	<p>S 26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.</p> <p>S 36/37/39: Wear suitable protective clothing, gloves and eye/face protection.</p> <p>S 45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).</p> <p>S 61: Avoid release to the environment. Refer to special instructions, safety data sheets.</p>
Special labelling:	Contains epoxy-containing compounds. Observe manufacturer's instructions.
Authorisation, TITEL VII:	not applicable
Restrictions, TITEL VIII:	not applicable
EEC-REGULATIONS:	1967/548 (2004/73, 29. ATP); 1991/689 (2001/118); 1999/13; 2004/42; 648/2004; 1907/2006.
TRANSPORT-REGULATIONS:	ADR (2007); IMDG-Code (33. Amdt.); IATA-DGR (2008).
NATIONAL REGULATIONS (GB)	EH40/2005 Workplace exposure limits with amendments October 2007.

16 Other informations

R-phrases (Chapter 03):	<p>R 40: Limited evidence of a carcinogenic effect.</p> <p>R 68: Possible risk of irreversible effects.</p> <p>R 52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.</p> <p>R 51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.</p> <p>R 10: Flammable.</p> <p>R 43: May cause sensitisation by skin contact.</p> <p>R 36/38: Irritating to eyes and skin.</p> <p>R 20/22: Harmful by inhalation and if swallowed.</p> <p>R 21/22: Harmful in contact with skin and if swallowed.</p> <p>R 21: Harmful in contact with skin.</p> <p>R 34: Causes burns.</p> <p>R 37: Irritating to respiratory system.</p>
Modified position:	Minus: Chapter: 15 R-phrases:
Observe employment restrictions for people:	yes
VOC (1999/13/CE):	not determinated
Customs Tariff:	not determinated