

Pagel Spezial- Beton GmbH & Co. KG

EH 136 - Hardener

1. Identification of substance/preparation and of the company/undertaking

Trade name : EH 136 - Hardener
Application of the substance / the preparation : Epoxy-coating, Hardener Dispersion
Company : Pagel Spezial Beton GmbH & Co. KG
Wolfsbankring 9
D-45355 Essen
Phone number : ++49 (0)201 / 68504 0
Emergency phone : Toxic information headquarter Berlin
++49 (0)30 / 19 240

2. Composition/Information on ingredients

Chemical characterization : Formulated polyamine preparation
Description : Mixture of the substances listed below with harmless additions.
Dangerous components :

Chemical Name	CAS-No.	Symbol(s)	R-phrase(s)	Concentration
benzyl alcohol EC-No.: 202-859-9	100-51-6	,Xn,	R20/22	<10%
isophorone diamine EC-No. : 220-666-8	2855-13-2	,C,	R21/22-34-43-52/53	<10%
polyoxypropylene diamine (R21/22)	9046-10-0	,C,	R21/22-34	<10%
nonyl-phenol EC-No.: 246-672-0	25154-52-3	,C, ,N,	R 22-34-62-50/53-63	<=2.5%

Additional information

For the wording of the listed risk phrases refer to section 16.

3. Hazards identification

Hazard designation:

C Corrosive

Information pertaining to particular dangers for man and environment

Harmful in contact with skin and if swallowed.
Causes burns.
May cause sensitization by skin contact.
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Classification system:

The classification is in line with current EC lists. It is expanded, however, by information from technical

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literature and by information furnished supplier companies.

4. First aid measures

- General information : Seek immediate medical advice.
Instantly remove any clothing soiled by the product.
Take affected persons into the open air.
- After eye contact : Rinse opened eye for several minutes under running water.
Call a doctor immediately.
- After skin contact : Instantly wash with water and soap and rinse thoroughly.
- After inhalation : Supply fresh air and call for doctor for safety reasons.
- After swallowing : Immediately give plenty of water (if possible charcoal slurry). If a person vomits when lying on his back, place him in the recovery position.
Oxygen or artificial respiration if needed. Do not induce vomiting.
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5. Fire fighting measures

- Suitable extinguishing agents : Use fire fighting measures that suit the environment.
- Special hazards caused by the material, its products of combustions or flue gases : Can be released in case of fire
Carbon monoxide (CO)
Nitrogen oxides (NOx)
- Protective equipment : Put on breathing apparatus.
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6. Accidental release measures

- Personal-related safety precautions : Wear protective equipment. Keep unprotected persons away.
- Measures for environmental protection : Prevent material from reaching sewage system, holes and cellars.
- Measures for cleaning/collecting : Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of contaminated material as waste according to item 13.
Ensure adequate ventilation.
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7. Handling and storage

Handling:

- Information for safe handling : Open and handle container with care.
Ensure good ventilation/exhaustion at the workplace.
- Information about protection against explosions and fires : Keep ignition sources away - Do not smoke.

Storage:

- Requirements to be met by storerooms and containers : No special requirements.
- Information about : Not required.

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storage in one common storage facility
 Further information about storage conditions : Keep away from food, drink and animal feeding stuffs.
 Keep container tightly closed.
 Keep at temperatures between 2 and 40 °C.
 Storage hazard class : Storage class 8, Corrosive substances

8. Exposure controls/personal protection

Components with workplace control parameters

Components	CAS-No.	Control parameters	Update	Basis

Additional information about design of technical systems : No further data; see item 7.

Engineering measures

No special precautions required.

Personal protective equipment:

General protective and hygienic measures : Keep away from foodstuffs, beverages and food. Instantly remove any soiled and impregnated garments.
 Wash hands during breaks and at the end of the work.
 Avoid contact with the eyes and skin.

Breathing equipment : Not necessary if room is well-ventilated. Only during spraying without adequate removal by suction.
 Self-contained breathing apparatus.

Eye protection : Tightly fitting safety glasses. Gauze goggles.

Body protection : Protective work clothing.
 Apron.
 Boots.

Protection of hands : Material of gloves for long term application (BTT>480 min):
 Butyl rubber
 Ethyl Vinyl Alcohol Laminate (EVAL)
 Material of gloves for short term/splash application (10min<BTT<480min):
 Nitrile rubber
 Use gloves approved to relevant standards e.g. EN 374 (Europe), F739 (US).
 Suitability and durability of a gloves is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material and dexterity. Always seek advice from glove suppliers.
 Additional information can be found for instance at www.gisbau.de

Penetration time of glove material : The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

9. Physical and chemical properties

Physical state : liquid
 Colour : white
 Odour : amine-like
 Boiling point : > 100 °C
 Self-inflammability : Product is not selfigniting.

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Danger of explosion : Product is not explosive.
 Flash point : >170°C method: DIN 51758
 Density : approx. 1,00 g/cm³ at (20 °C) method: DIN 51757
 Solubility in / Miscibility with water : soluble in/with water
 Viscosity kinematic : approx. 20s at 23°C (4mm)

10. Stability and reactivity

Thermal decomposition / conditions to be avoided : No decomposition if used according to specifications.
 Dangerous reactions : No dangerous reactions known
 Dangerous products of composition : No dangerous decomposition products known.

11. Toxicological information

Acute toxicity	LD/LC50 values that are relevant for classification:		
	2855-13-2 isophorone diamine		
	Oral	LD50	250 mg/kg (rat)
			Oral Dermal
	1477-55-0 m-Xylylendiamin		
Oral Dermal Inhalativ	LD50 LD50 LC50/4 h	1040 mg/kg (rat) 2000 mg/kg (rab) 2,4 mg/l (rat)	Oral Dermal
100-51-6 benzyl alcohol			
Oral Dermal	LD50 LD50	1230 mg/kg (rat) 2000 mg/kg (rbt)	
Primary irritant effect:	on the eye: Strong caustic effect. on the skin: Caustic effect on skin and mucous membranes. Sensitization Sensitization possible by skin contact.		
Additional toxicological information	The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version: Harmful Corrosive Irritant Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.		

12. Ecological information

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Ecotoxicity effects

Further information on ecology

Additional ecological information : Avoid subsoil penetration
Prevent product from entering drains.
Do not contaminate surface water.

13. Disposal considerations

Product:

Recommendation

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

European waste catalogue

08 00 00: WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS

08 01 00: wastes from MFSU and removal of paint and varnish

08 01 11: waste paint and varnish containing organic solvents or other dangerous substances

Uncleaned packagings:

Recommendation:

Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.

14. Transport information

Road transport :

ADR/RID

UN-No: : 2735

Class : 8 Corrosive substances

Classification code : C7

Packaging group : III

Risk No. : 80

ADR/RID- Labels : 8

Proper shipping name : AMINES , LIQUID, CORROSIVE, N.O.S.
(isophorone diamine)

Sea transport :

IMDG :

UN-No: : 2735

Class : 8

Packaging group : III

ADR/RID- Labels : 8

MFAG :

EmS : F-A-S-B

Proper shipping name : AMINES , LIQUID, CORROSIVE, N.O.S.
(isophorone diamine)

Air transport

IATA-DGR:

UN/ID No. : UN 2735
 Class : 8
 Packaging group : III
 Packing instruktion (cargo aircraft) : 820
 Max. Qty/Pack. (999.00=No limit) : 60.00L
 Packing instruction (passenger aircraft) : 818
 ADR/RID- Labels : 8
 Proper shipping name : AMINES , LIQUID, CORROSIVE, N.O.S. (isophorone diamine)

15. Regulatory information

Designation according to EC guidelines:

The product has been labelled in accordance with EC Directives / relevant national laws.

Code letter and hazard designation of product :



C Corrosive

R-Phrases : R21/22: Harmful in contact with skin and if swallowed.
 R34: Causes burns
 R43: May cause sensitization by skin contact.
 R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-Phrases : S24: Avoid contact with skin.
 S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.
 S45: In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).

Hazardous – determining components of labelling : isophorone diamine
 polyoxypropylene diamine

16. Other information

List of R-phrases (section 2)

22 Harmful if swallowed
 20/22 Harmful by inhalation and if swallowed
 21/22 Harmful in contact with skin and if swallowed
 34 Causes burns

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43	May cause sensitization by skin contact
50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment
62	Possible risk of impaired fertility
63	Possible risk of harm to the unborn child

Department issuing data specification sheet: Technic

Contact: laboratory

All information is based on results gained from experience and tests and is believed to be accurate but is given without acceptance of liability for loss or damage attributable to reliance thereon as conditions of use lie outside our control. Users should always carry out sufficient tests to establish the suitability of any products for their intended applications.