

SAFETY DATA SHEET

EX-88 HARDENER PART B

According to Regulation (EC) No 1907/2006

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME EX-88 HARDENER PART B

APPLICATION Two component epoxy based coating compound

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2 HAZARDS IDENTIFICATION

Harmful if swallowed. Causes burns. May cause sensitisation by inhalation and skin contact. Possible risk of impaired fertility. Possible risk of harm to the unborn child. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

CLASSIFICATION Xn;R22. Rep 3;R62, R63. R42/43. C;R34. N;R50/53.

ENVIRONMENT

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

HUMAN HEALTH

See section 11 for additional information on health hazards.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content	Classification
4-NONYLPHENOL, Branched	284-325-5	84852-15-3	30-60%	Repr. Cat. 3;R62,R63 C;R34 Xn;R22 N;R50/53
AMINOETHYLPIPERAZINE	205-411-0	140-31-8	< 1%	C;R34 Xn;R21/22 R43 R52/53
BENZYL ALCOHOL	202-859-9	100-51-6	1-5%	Xn;R20/22
PIPERAZINE	203-808-3	110-85-0	1-5%	C;R34 R42/43 R52/53
POLYOXYPROPYLENEDIAMINE			30-60%	C;R34.
TERTIARY AMINE	202-013-9		1-5%	Xn;R22 Xi;R36/38
TRIETHANOLAMINE	203-049-8	102-71-6	1-5%	Xi;R36/37/38.

The Full Text for all R-Phrases are Displayed in Section 16

4 FIRST-AID MEASURES

GENERAL INFORMATION

Move the exposed person to fresh air at once. Get medical attention.

INHALATION

Move the exposed person to fresh air at once. Perform artificial respiration if breathing has stopped. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention.

EX-88 HARDENER PART B**INGESTION**

NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Remove victim immediately from source of exposure. Rinse mouth thoroughly. Get medical attention.

SKIN CONTACT

Remove affected person from source of contamination. Remove contaminated clothing. Wash the skin immediately with soap and water. Continue to rinse for at least 15 minutes and seek medical attention.

EYE CONTACT

Remove victim immediately from source of exposure. Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes and get medical attention.

5 FIRE-FIGHTING MEASURES**EXTINGUISHING MEDIA**

This product is not flammable. Use fire-extinguishing media appropriate for surrounding materials.

SPECIAL FIRE FIGHTING PROCEDURES

Cool containers exposed to flames with water until well after the fire is out. Keep run-off water out of sewers and water sources. Dike for water control.

SPECIFIC HAZARDS

Fire creates: Toxic gases/vapours/fumes of Carbon monoxide (CO). Carbon dioxide (CO₂).

PROTECTIVE MEASURES IN FIRE

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

6 ACCIDENTAL RELEASE MEASURES**PERSONAL PRECAUTIONS**

Wear protective clothing as described in Section 8 of this safety data sheet.

ENVIRONMENTAL PRECAUTIONS

Do not discharge into drains, water courses or onto the ground.

SPILL CLEAN UP METHODS

Stop leak if possible without risk. DO NOT touch spilled material! Absorb in vermiculite, dry sand or earth and place into containers. Flush with plenty of water to clean spillage area. Do not contaminate water sources or sewer. Wash thoroughly after dealing with a spillage. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

7 HANDLING AND STORAGE**USAGE PRECAUTIONS**

Read and follow manufacturer's recommendations. Provide good ventilation. Avoid spilling, skin and eye contact. Pregnant women should not work with the product, if there is the least risk of exposure.

STORAGE PRECAUTIONS

Store in tightly closed original container in a dry, cool and well-ventilated place. Keep in original container.

STORAGE CLASS

Corrosive storage.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Name	Std	TWA - 8 hrs	STEL - 15 min	Notes
PIPERAZINE	WEL	0,1 mg/m ³	0,3 mg/m ³	Sen

WEL = Workplace Exposure Limit.

Sen = Capable of causing occupational asthma.

PROTECTIVE EQUIPMENT

EX-88 HARDENER PART B**ENGINEERING MEASURES**

Provide adequate ventilation.

RESPIRATORY EQUIPMENT

No specific recommendation made, but respiratory protection may still be required under exceptional circumstances when excessive air contamination exists. If ventilation is insufficient, suitable respiratory protection must be provided.

HAND PROTECTION

Wear protective gloves. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

EYE PROTECTION

Wear splash-proof eye goggles to prevent any possibility of eye contact.

OTHER PROTECTION

Wear appropriate clothing to prevent any possibility of skin contact.

HYGIENE MEASURES

Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes wet or contaminated. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Light viscous liquid		
COLOUR	Colourless to pale yellow		
ODOUR	Amine.		
SOLUBILITY	Slightly soluble in water.		
BOILING POINT (°C)	204deg C	RELATIVE DENSITY	0.972
VAPOUR DENSITY (air=1)	>1	FLASH POINT (°C)	>93deg C PM Closed cup.

10 STABILITY AND REACTIVITY**STABILITY**

Stable under normal temperature conditions and recommended use.

CONDITIONS TO AVOID

Avoid excessive heat for prolonged periods of time.

MATERIALS TO AVOID

Strong oxidising substances.

HAZARDOUS DECOMPOSITION PRODUCTS

Fire creates: Carbon monoxide (CO). Carbon dioxide (CO₂).

11 TOXICOLOGICAL INFORMATION**INHALATION**

Vapours may irritate throat and respiratory system and cause coughing. May cause sensitisation by inhalation.

INGESTION

Corrosive. Even small amounts may cause serious damage. Harmful if swallowed.

SKIN CONTACT

Causes burns. May cause sensitisation by skin contact.

EYE CONTACT

Causes burns.

HEALTH WARNINGS

SKIN CONTACT. May cause sensitisation by skin contact. INHALATION. Risk of sensitisation by inhalation.

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OTHER HEALTH EFFECTS

Toxic to Reproductive Health Categ. 3.

12 ECOLOGICAL INFORMATION

ECOTOXICITY

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13 DISPOSAL CONSIDERATIONS

DISPOSAL METHODS

Recover and reclaim or recycle, if practical. Do not allow runoff to sewer, waterway or ground. Dispose of waste and residues in accordance with local authority requirements.

14 TRANSPORT INFORMATION

UK ROAD CLASS	8		
PROPER SHIPPING NAME	CORROSIVE LIQUID, N.O.S. (4-NONYLPHENOL, Branched, PIPERAZINE)		
UN NO. ROAD	1760	UK ROAD PACK GR.	III
ADR CLASS NO.	8	ADR CLASS	Class 8: Corrosive substances.
ADR PACK GROUP	III	TUNNEL RESTRICTION CODE	(E)
HAZARD No. (ADR)	80	ADR LABEL NO.	8
HAZCHEM CODE	2X	CEFIC TEC(R) NO.	80GC9-II+III
RID CLASS NO.	8	RID PACK GROUP	III
UN NO. SEA	1760	IMDG CLASS	8
IMDG PACK GR.	III	EMS	F-A, S-B
UN NO. AIR	1760	ICAO CLASS	8
AIR PACK GR.	III		

15 REGULATORY INFORMATION

LABELLING



Corrosive



Harmful



Dangerous for the environment

CONTAINS

4-NONYLPHENOL, Branched
PIPERAZINE
POLYOXYPROPYLENEDIAMINE

RISK PHRASES

R22	Harmful if swallowed.
R34	Causes burns.
R42/43	May cause sensitisation by inhalation and skin contact.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R62	Possible risk of impaired fertility.

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	R63	Possible risk of harm to the unborn child.
SAFETY PHRASES	S23	Do not breathe vapour/spray.
	S25	Avoid contact with eyes.
	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.
	S38	In case of insufficient ventilation, wear suitable respiratory equipment.
	S45	In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).
	S57	Use appropriate containment to avoid environmental contamination.
	S60	This material and its container must be disposed of as hazardous waste.
	S61	Avoid release to the environment. Refer to special instructions/safety data sheets.

EU DIRECTIVES

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

STATUTORY INSTRUMENTS

Chemicals (Hazard Information and Packaging) Regulations.

APPROVED CODE OF PRACTICE

Classification and Labelling of Substances and Preparations Dangerous for Supply.

GUIDANCE NOTES

Workplace Exposure Limits EH40.

16 OTHER INFORMATION

REVISION DATE 04-2009

REV. NO./REPL. SDS GENERATED 1

RISK PHRASES IN FULL

R34	Causes burns.
R20/22	Harmful by inhalation and if swallowed.
R22	Harmful if swallowed.
R21/22	Harmful in contact with skin and if swallowed.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R36/38	Irritating to eyes and skin.
R36/37/38	Irritating to eyes, respiratory system and skin.
R42/43	May cause sensitisation by inhalation and skin contact.
R43	May cause sensitisation by skin contact.
R63	Possible risk of harm to the unborn child.
R62	Possible risk of impaired fertility.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

DISCLAIMER

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in a process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.