



SAFETY DATA SHEET UNFILLED EPOXY RESIN HARDENER

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

PRODUCT NAME UNFILLED EPOXY RESIN HARDENER
PRODUCT NO. ER1448B
EER1448BB200K
EER1448BB5K
EER1448K5K
EER1448RP250G
ZE
APPLICATION Resin
SUPPLIER ELECTROLUBE. A division of
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2 HAZARDS IDENTIFICATION

Harmful in contact with skin and if swallowed.

Causes burns.

May cause sensitisation by 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 (1999/45) Xn;R21/22. Repr. Cat. 3;R62, R63. C;R34. R43. N;R50/53.

ENVIRONMENT

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point. Avoid release to the environment.

Refer to special instructions/safety data sheets. Dispose of waste and residues in accordance with local authority requirements.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content %	Classification (67/548/EEC)
TOFA reaction product with TEPA	203-986-2	68953-36-6	30-60%	Xi;R41. N;R51/53.
2-PIPERAZIN-1-YLETHYLAMINE	205-411-0	140-31-8	10-30%	C;R34 Xn;R21/22 R43 R52/53
NONYLPHENOL	246-672-0	25154-52-3	10-30%	Repr. Cat. 3;R62,R63 C;R34 Xn;R22 N;R50/53
TETRAETHYLENEPENTAMINE	203-986-2	112-57-2	5-10%	C;R34 Xn;R21/22 R43 N;R51/53

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

COMPOSITION COMMENTS

Ingredients not listed are classified as non-hazardous or at a concentration below reportable levels

4 FIRST-AID MEASURES

UNFILLED EPOXY RESIN HARDENER

INHALATION

Move the exposed person to fresh air at once. Get medical attention. Provide rest, warmth and fresh air.

INGESTION

DO NOT INDUCE VOMITING! Rinse mouth thoroughly. Drink plenty of water. Get medical attention immediately!

SKIN CONTACT

Wash the skin immediately with soap and water. Get medical attention promptly if symptoms occur after washing.

EYE CONTACT

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Get medical attention immediately. Continue to rinse.

5 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Use fire-extinguishing media appropriate for surrounding materials. Fire can be extinguished using: Water spray. Foam. Alcohol resistant foam. Carbon dioxide (CO₂).

SPECIFIC HAZARDS

Fire creates: Toxic gases/vapours/fumes of: Carbon monoxide (CO). Carbon dioxide (CO₂). Ammonia or amines. Nitrous gases (NO_x).

6 ACCIDENTAL RELEASE MEASURES

SPILL CLEAN UP METHODS

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. Clean-up personnel should use respiratory and/or liquid contact protection.

7 HANDLING AND STORAGE

USAGE PRECAUTIONS

Avoid spilling, skin and eye contact. Avoid inhalation of vapours.

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

PROTECTIVE EQUIPMENT



ENGINEERING MEASURES

Provide adequate general and local exhaust ventilation.

RESPIRATORY EQUIPMENT

No specific recommendation made, but respiratory protection must be used if the general level exceeds the recommended occupational exposure limit.

HAND PROTECTION

Protective gloves should be used if there is a risk of direct contact or splash. 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 approved, tight fitting safety glasses where splashing is probable.

OTHER PROTECTION

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact.

HYGIENE MEASURES

DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Wash promptly with soap & water if skin becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.

9 PHYSICAL AND CHEMICAL PROPERTIES

UNFILLED EPOXY RESIN HARDENER

APPEARANCE	Liquid
COLOUR	Amber to Brown
ODOUR	Characteristic
SOLUBILITY	Soluble in water.
RELATIVE DENSITY	0.910 - 0.970 21-23 (69.8 - 73.4 F)
VISCOSITY	100 - 500 mPas 21-25 (69.8 - 77 F)
FLASH POINT (°C)	>112 (233.6 F) CC (Closed cup).
AUTO IGNITION TEMPERATURE (°C)	380 (716 F)

10 STABILITY AND REACTIVITY

STABILITY

Stable under normal temperature conditions.

HAZARDOUS DECOMPOSITION PRODUCTS

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

11 TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION

No information available.

INHALATION

Harmful by inhalation. Irritating to respiratory system.

INGESTION

Harmful if swallowed.

SKIN CONTACT

Causes burns. May cause sensitisation by skin contact. Product has a defatting effect on skin. Prolonged contact may cause dryness of the skin. May cause allergic contact eczema.

EYE CONTACT

Spray and vapour in the eyes may cause irritation and smarting. May cause chemical eye burns.

HEALTH WARNINGS

Prolonged inhalation of high concentrations may damage respiratory system.

12 ECOLOGICAL INFORMATION

ECOTOXICITY

Dangerous for the environment if discharged into watercourses.

LC 50, 96 Hrs, FISH mg/l n/a

EC 50, 48 Hrs, DAPHNIA, mg/l n/a

IC 50, 72 Hrs, ALGAE, mg/l n/a

13 DISPOSAL CONSIDERATIONS

DISPOSAL METHODS

Dispose of waste and residues in accordance with local authority requirements.

14 TRANSPORT INFORMATION



PROPER SHIPPING NAME	CORROSIVE LIQUID, N.O.S. (NONYLPHENOL, TOFA reaction product with TEPA)
UN NO. ROAD	1760

UNFILLED EPOXY RESIN HARDENER

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
UN NO. SEA	1760
IMDG CLASS	8
IMDG PACK GR.	III
EMS	F-A, S-B
UN NO. AIR	1760
AIR CLASS	8
AIR PACK GR.	III

15 REGULATORY INFORMATION

LABELLING



Corrosive



Harmful



Dangerous for the environment

CONTAINS

2-PIPERAZIN-1-YLETHYLAMINE
NONYLPHENOL
TETRAETHYLENEPENTAMINE

RISK PHRASES

R34	Causes burns.
R43	May cause sensitisation by skin contact.
R21/22	Harmful in contact with skin and if swallowed.
R62	Possible risk of impaired fertility.
R63	Possible risk of harm to the unborn child.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SAFETY PHRASES

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.
S45	In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).

UK REGULATORY REFERENCES

Chemicals (Hazard Information & Packaging) Regulations.

The Control of Substances Hazardous to Health Regulations 2002 (S.I 2002 No. 2677) with amendments.

ENVIRONMENTAL LISTING

Rivers (Prevention of Pollution) Act 1961. Control of Pollution Act 1974.

EU DIRECTIVES

Dangerous Substance Directive 67/548/EEC.

Dangerous Preparations Directive 1999/45/EC.

System of specific information relating to Dangerous Preparations. 2001/58/EC.

Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

UNFILLED EPOXY RESIN HARDENER

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.

GUIDANCE NOTES

Workplace Exposure Limits EH40.

16 OTHER INFORMATION

REVISION COMMENTS

Revised in accordance with CHIP3 and EU Directives 1999/45/EC and 2001/58/EC

ISSUED BY

Pawel Zmarzly

REVISION DATE NOVEMBER 2010

REV. NO./REPL. SDS 0

GENERATED

SDS NO. 10665

RISK PHRASES IN FULL

R34	Causes burns.
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.
R43	May cause sensitisation by skin contact.
R63	Possible risk of harm to the unborn child.
R62	Possible risk of impaired fertility.
R41	Risk of serious damage to eyes.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
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 any 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.