SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

**Product identifier**

**Product name:** EPOFIX HARDENER

Cat. No. 40200029, 40200031, 40200087

CAS-No.: 90640-67-8

EC No.: 292-588-2

REACH Reg. No: 01-2119487919-13-xxxx

Container size: 130 ml, 500 ml

**Relevant identified uses of the substance or mixture and uses advised against**

**Application:** For embedding and impregnation of materialographic specimens

**Uses advised against:** No specific uses advised against are identified.

**Details of the supplier of the safety data sheet**

**Supplier:** Struers Australia

27 Mayneview Street

Milton QLD 4064, Australia

**Supplier in NZ:** Malcolm Total Logistics

39 Richard Pearse Drive

Airport Oaks, Auckland

New Zealand

Tel:+64 9 2573564

**Responsible for safety data sheet authoring:** Responsible for safety data sheet authoring: DHI

Any questions to the contents of this safety data sheet should be sent to:

struers@struers.dk

**Emergency telephone number**

New Zealand Poisons Centre: 0800 764 766 (24 hours a day, 7 days a week).
SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

HSNO:
6.1D
8.2B
8.3A
6.5B
9.1C

Label elements

Danger

Contains:
Amines, polyethylenepoly-, triethylenetetramine fraction (100%)
H302 + H312 Harmful if swallowed or in contact with skin.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER or doctor/physician.
P501 Dispose of contents/container in accordance with local regulations.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P304 + P340 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P405 Store locked up.

Other hazards
Vapours are corrosive. After 24-36 hours, injured persons may develop serious shortness of breath and lung oedema.
PBT/vPvB: No information available.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS
SAFETY DATA SHEET

SECTION 4: FIRST AID MEASURES

Description of first aid measures

Inhalation: Move injured person into fresh air immediately. Call an ambulance. Be aware that symptoms of lung oedema (shortness of breath) may develop up to 24 hours after exposure. Bring these instructions.

Skin contact: Flush immediately with plenty of water and remove contaminated clothing. Call an ambulance, continue to rinse during transportation to hospital and bring these instructions.

Eye contact: Immediately flush with plenty of water. Remove any contact lenses and open eyes wide apart. Call an ambulance and continue flushing during transportation to hospital. Bring these instructions.

Ingestion: Immediately call a Poison Center/doctor. Rinse mouth. Do not induce vomiting. Do not drink anything without first consulting a doctor. Have these instructions at hand.

Most important symptoms and effects, both acute and delayed

Symptoms/effects: See section 11 for more detailed information on health effects and symptoms.

Indication of any immediate medical attention and special treatment needed

Medical attention/treatments: Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.
Unsuitable extinguishing media: None known.

Specific hazards: When heated and in case of fire, very toxic nitrogen oxides may be formed.

Advice for firefighters

Protective measures for fire-fighters: Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.
SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:
Avoid inhalation of vapours and contact with skin and eyes. For personal protection, see section 8.

For emergency responders:
No specific recommendations. For personal protection, see section 8.

Environmental precautions

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

Methods and material for containment and cleaning up

Methods for cleaning up:
Absorb spillage with non-combustible, absorbent material.

Reference to other sections

Reference:
For personal protection, see section 8. For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Safe handling advice:
Avoid inhalation of vapours and contact with skin and eyes. Observe good chemical hygiene practices.

Technical measures:
Work practice should minimise contact.

Technical precautions:
Local exhaust is recommended. Provide easy access to water supply and eye wash facilities.

Conditions for safe storage, including any incompatibilities

Storage conditions:
Store in a cool and well-ventilated place.

Specific end use(s)

Specific use(s):
No information available.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Form: Liquid.
Colour: Yellow.
Odour: Amine.
$pH$: 10,7 (ISO 8975)
Melting point: -35°C
Boiling point: 270-300°C
Flash point: 129°C
Explosion limits: Not available.
Vapour pressure: < 0,1 hPa (20 °C)
Relative density: 0,94-0,98
Solubility: soluble in water
Partition coefficient (n-octanol/water): Not available.
Viscosity: Dynamic viscosity: 20 - 30 mPa.s (25 °C)

Other information
Other data: Volatile Organic Compound (VOC): 0 g/l
SECTION 10: STABILITY AND REACTIVITY

Reactivity

Reactivity: None under normal conditions.

Chemical stability

Stability: Stable under normal temperature conditions.

Possibility of hazardous reactions

Hazardous Reactions: None under normal conditions.

Conditions to avoid

Conditions/materials to avoid: Heating. Direct sunlight.

Incompatible materials

Incompatible materials: No information available.

Hazardous decomposition products

Hazardous decomposition products: When heated and in case of fire, very toxic nitrogen oxides are formed.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute Toxicity (Oral): Harmful if swallowed.
LD50 (oral, rat): 1716.2 mg/kg

Acute Toxicity (Dermal): Harmful in contact with skin.
Acute Toxicity (Dermal LD50): 1720 mg/kg (Rat)

Acute Toxicity (Inhalation): Based on available data, the classification criteria are not met.

Skin Corrosion/Irritation: Causes severe skin burns and eye damage.

Serious eye damage/irritation: Causes serious eye damage.

Respiratory or skin sensitisation: May cause an allergic skin reaction.

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive Toxicity: Based on available data, the classification criteria are not met.

STOT - Single exposure: Based on available data, the classification criteria are not met.

STOT - Repeated exposure: Based on available data, the classification criteria are not met.

Aspiration hazard: Based on available data, the classification criteria are not met.

Inhalation: Vapours are corrosive. After 24-36 hours, injured persons may develop serious shortness of breath and lung oedema.

Ingestion: Strongly corrosive. Even small amounts may be fatal. Symptoms are severe burning pains in mouth, throat and stomach.
SECTION 12: ECOLOGICAL INFORMATION

Toxicity
Ecotoxicity: Harmful to aquatic life with long lasting effects.

Persistence and degradability
Degradability: The degradability of the product has not been stated.

Bioaccumulative potential
Bioaccumulative potential: log Pow: -2.65

Mobility in soil
Mobility: No data available.

Results of PBT and vPvB assessment
PBT/vPvB: No information available.

Other adverse effects
Other adverse effects: No information available.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods
Waste from residues: Dispose of waste and residues in accordance with local authority requirements.
Waste is classified as hazardous waste. Note that fully cured material is not considered as hazardous waste.
L-Code: 16 05 08

Contaminated packaging: Dispose of waste and residues in accordance with local authority requirements.
SECTION 14: TRANSPORT INFORMATION

The product is covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

**UN number**

UN-No: 2735

**UN proper shipping name**

Proper Shipping Name: AMINES, LIQUID, CORROSIVE, N.O.S. (Amines, polyethylenepoly-, triethylenetetramine fraction)

Additional IMDG information:
EmS: F-A,S-B
MFAG: 1
Segregation Group: Alkaline

**Transport hazard class(es)**

Class: 8

**Packing group**

PG: II

**Environmental hazards**

Marine pollutant: No.
Environmentally Hazardous substance: No.

**Special precautions for user**

Special precautions: None known.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Transport in bulk: Not relevant.

SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

**Special provisions:**
As a general rule, persons under 15 years of age are not allowed to work with this product. Users must be carefully instructed in the proper work procedure, the dangerous properties of the product and the necessary safety instructions.
New Zealand Inventory of Chemical Substances (NZIoC): Not determined.

**National regulation:**
Hazardous Substances (Classification) Notice 2017.
Hazardous Substances (Safety Data Sheets) Notice 2017.
Health and Safety at Work (General Risk and Workplace Management) Regulations 2016 (the GRWM Regulations).
New Zealand Waste List.
SECTION 16: OTHER INFORMATION

The user must be instructed in the proper work procedure and be familiar with the contents of these instructions.

The following sections contain revisions or new statements:

The (*) indicates the changes made with respect to the previous version.

Approved by DHI.

[Signature]

Allan Vorup

Additional information:
Classification according to HSNO:
Calculation method.

Wording of H-statements:

H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H412 Harmful to aquatic life with long lasting effects.

The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.

Made by DHI - Environment and Toxicology, Agern Allé 5, DK-2970 Hørsholm, Denmark.