SAFETY DATA SHEET
HIGH BUILD PROTECTIVE COATING (HARDENER)

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
Product name: HIGH BUILD PROTECTIVE COATING (HARDENER)
Product number: TM41

1.2. Relevant identified uses of the substance or mixture and uses advised against
Identified uses: Epoxy Resin (Hardener Component)

1.3. Details of the supplier of the safety data sheet
Supplier: PAREX Ltd
Holly Lane Industrial Estate
Atherstone
Warwickshire
CV9 2QZ
Tel: +44 (0)1827 711755
(Mon-Fri 08:30-16:30)
Fax: +44 (0)1827 711330
sds@parex.co.uk

1.4. Emergency telephone number
Emergency telephone: +44 (0)1827 711755 (Mon-Fri 08:30 - 16:30)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Classification (EC 1272/2008)
Physical hazards: Not Classified
Health hazards: Acute Tox. 4 - H302 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317 Repr. 2 - H361 STOT RE 2 - H373
Environmental hazards: Aquatic Chronic 3 - H412

2.2. Label elements
Pictogram:

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

Signal word: Danger

Hazard statements:
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H361 Suspected of damaging fertility or the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.
H412 Harmful to aquatic life with long lasting effects.
HIGH BUILD PROTECTIVE COATING (HARDENER)

Precautionary statements

P260 Do not breathe vapour/spray.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or 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/doctor.
P405 Store locked up.
P501 Dispose of contents/container in accordance with national regulations.

Contains

TOFA-DimerFA-TETA PAA, AMINES, POLYETHYLENEPOLY-, TRIETHYLENETETRAMINE FRACTION, 2-PIPERAZIN-1-YLETHYLAMINE

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

<table>
<thead>
<tr>
<th>TOFA-DimerFA-TETA PAA</th>
<th>15 - 40%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 68082-29-1</td>
<td>EC number: 500-191-5</td>
</tr>
<tr>
<td>REACH registration number: 01-2119972320-44-0000</td>
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</tr>
</tbody>
</table>

Classification

Skin Irrit. 2 - H315
Eye Dam. 1 - H318
Skin Sens. 1 - H317
Aquatic Chronic 2 - H411

<table>
<thead>
<tr>
<th>AMINES, POLYETHYLENEPOLY-, TRIETHYLENETETRAMINE FRACTION</th>
<th>15 - 40%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 90640-67-8</td>
<td>EC number: 292-588-2</td>
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<tr>
<td>REACH registration number: 01-2119487919-13-0000</td>
<td></td>
</tr>
</tbody>
</table>

Classification

Acute Tox. 4 - H302
Acute Tox. 4 - H312
Skin Corr. 1B - H314
Eye Dam. 1 - H318
Skin Sens. 1 - H317
Aquatic Chronic 3 - H412
HIGH BUILD PROTECTIVE COATING (HARDENER)

2-PIPERAZIN-1-YLETHYLAMINE 3 - 10%
CAS number: 140-31-8  EC number: 205-411-0  REACH registration number: 01-2119471486-30-0000

Classification
Acute Tox. 4 - H302
Acute Tox. 3 - H311
Skin Corr. 1B - H314
Eye Dam. 1 - H318
Skin Sens. 1 - H317
Repr. 2 - H361
STOT RE 1 - H372
Aquatic Chronic 3 - H412

The full text for all hazard statements is displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures
General information
Rinse immediately with plenty of water. While rinsing, remove clothing not adhering to the affected area.

Inhalation
Remove person to fresh air and keep comfortable for breathing. Get medical attention if any discomfort continues.

Ingestion
Give plenty of water to drink. Get medical attention immediately. Remove person to fresh air and keep comfortable for breathing.

Skin contact
Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing.

Eye contact
Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyelids widely. If irritation persists: Seek medical attention and bring along these instructions.

4.2. Most important symptoms and effects, both acute and delayed
4.3. Indication of any immediate medical attention and special treatment needed

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media

Unsuitable extinguishing media
Do not use water with a full water jet.

5.2. Special hazards arising from the substance or mixture
Specific hazards
Formation of toxic gases is possible during heating or in case of fire.

Hazardous combustion products
Toxic gases or vapours.

5.3. Advice for firefighters
Protective actions during firefighting
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

Special protective equipment for firefighters
Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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

6.2. Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Absorb spillage with sand or other inert absorbent. Collect and place in suitable waste disposal containers and seal securely. Ensure adequate ventilation.

6.4. Reference to other sections

Reference to other sections Collect and dispose of spillage as indicated in Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Observe good chemical hygiene practices. Provide adequate ventilation.

Advice on general occupational hygiene Wash at the end of each work shift and before eating, smoking and using the toilet.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place. Store in a demarcated bunded area to prevent release to drains and/or watercourses. Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

8.2. Exposure controls

Protective equipment

Eye/face protection Wear tight-fitting, chemical splash goggles or face shield. Ensure that an eye wash station is close at hand.

Hand protection Wear protective gloves made of the following material: Nitrile rubber. Viton rubber (fluoro rubber). The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Thickness: At least 0.5 mm

Other skin and body protection Wear protective clothing.

Respiratory protection Combination filter A-P2

Environmental exposure controls Keep container tightly sealed when not in use.

SECTION 9: Physical and Chemical Properties
HIGH BUILD PROTECTIVE COATING (HARDENER)

9.1. Information on basic physical and chemical properties

Appearance
Clear, yellowish liquid.

Odour
Amine.

Upper/lower flammability or explosive limits
Lower flammable/explosive limit: 1.3 Vol % Upper flammable/explosive limit: 13.0 Vol %

Bulk density
1.0 g/cm³

Solubility(ies)
Immiscible with water.

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

10.2. Chemical stability
Stability
Stable under the prescribed storage conditions.

10.3. Possibility of hazardous reactions
Possibility of hazardous reactions
None known.

10.4. Conditions to avoid

10.5. Incompatible materials
Materials to avoid
Avoid contact with strong oxidising agents.

10.6. Hazardous decomposition products
Hazardous decomposition products
Thermal decomposition or combustion products may include the following substances: Toxic and/or corrosive gases and/or vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Toxicological effects
Harmful if swallowed or in contact with skin.

Acute toxicity - oral
ATE oral (mg/kg) 1,886.65

Acute toxicity - dermal
ATE dermal (mg/kg) 3,352.43

Acute toxicity - inhalation
ATE inhalation (gases ppm) 30,694.72
ATE inhalation (vapours mg/l) 75.03
ATE inhalation (dusts/mists mg/l) 10.23

Skin corrosion/irritation
Causes severe burns.

Serious eye damage/irritation
Causes serious eye damage.

Skin sensitisation
May cause an allergic skin reaction.
HIGH BUILD PROTECTIVE COATING (HARDENER)

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

Reproductive toxicity
Reproductive toxicity - fertility Suspected of damaging fertility or the unborn child.

Specific target organ toxicity - single exposure
STOT - single exposure Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure
STOT - repeated exposure Causes damage to organs through prolonged or repeated exposure.

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

SECTION 12: Ecological Information

Ecotoxicity Harmful to aquatic life.

12.1. Toxicity
Toxicity The product contains substances which are harmful to aquatic organisms. Do not discharge into drains, water courses or onto the ground.

12.2. Persistence and degradability
Persistence and degradability No data available.

12.3. Bioaccumulative potential
Bioaccumulative potential No information available.

12.4. Mobility in soil
Mobility No data available.

12.5. Results of PBT and vPvB assessment
12.6. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods
General information Dispose of waste product or used containers in accordance with local regulations
Disposal methods Dispose of waste via a licensed waste disposal contractor.
Waste class EWC 08 00 00 EWC 08 02 00 EWC 08 02 99

SECTION 14: Transport information

14.1. UN number
UN No. (ADR/RID) 2735
UN No. (IMDG) 2735
UN No. (ADN) 2735

14.2. UN proper shipping name
Proper shipping name (ADR/RID) AMINES, LIQUID, CORROSIVE, N.O.S., (TRIETHYLENETETRAMINE)
Proper shipping name (IMDG) AMINES, LIQUID, CORROSIVE, N.O.S., (TRIETHYLENETETRAMINE)
HIGH BUILD PROTECTIVE COATING (HARDENER)

Proper shipping name (ADN)  AMINES, LIQUID, CORROSIVE, N.O.S., (TRIETHYLENETETRAMINE)

14.3. Transport hazard class(es)
ADR/RID class  8
ADR/RID classification code  C7
ADR/RID label  8
IMDG class  8
ICAO class/division  8
ADN class  8
Transport labels

14.4. Packing group
ADR/RID packing group  II
IMDG packing group  II
ADN packing group  II

14.5. Environmental hazards
Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user
EmS  F-A, S-B
ADR transport category  2
Hazard Identification Number (ADR/RID)  80
Tunnel restriction code  (E)

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

SECTION 15: Regulatory information

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


15.2. Chemical safety assessment
No chemical safety assessment has been carried out.
SECTION 16: Other information

Issued by QSHE Manager

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Supersedes date 13/10/2017

SDS number 20961

Hazard statements in full

H302 Harmful if swallowed.

H311 Toxic in contact with skin.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H361 Suspected of damaging fertility or the unborn child.

H372 Causes damage to organs through prolonged or repeated exposure.

H373 May cause damage to organs through prolonged or repeated exposure.

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

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.