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

- **Product identifier**
  - **Trade name:** T-PASTE 70-2 Hardener
- **Relevant identified uses of the substance or mixture and uses advised against**
  - **Application of the substance / the preparation** Epoxy curing agent

- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:** GURIT (UK) LTD
  - **ST. CROSS BUSINESS PARK**
  - **NEWPORT I.O.W.**
  - **PO30 5WU**
  - **UNITED KINGDOM**
  - **For SDS information contact simon.rhodes@gurit.com**
  - **TEL.: +44 (0) 1983 828000**
  - **FAX : +44 (0) 1983 828100**
  - **OUT OF HOURS EMERGENCY.: +44 (0) 2392 241208**

- **Informing department:** Product safety department.
- **Emergency telephone number:** Contact as above

2. Hazards identification

- **Classification of the substance or mixture**
  - **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
    - **C; Corrosive**
      - **R34:** Causes burns.
      - **Xn; Harmful**
      - **R22:** Harmful if swallowed.
      - **Xi; Sensitising**
      - **R43:** May cause sensitisation by skin contact.
      - **R52/53:** Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- **Information concerning particular hazards for human and environment:**
  - The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

- **Classification system:**
  - The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

- **Label elements**
  - **Labelling according to EU guidelines:**
    - Observe the normal safety regulations when handling chemicals
    - The product has been classified and labelled in accordance with EC Directives and relevant National Regulations

- **Code letter and hazard designation of product:**
  - C Corrosive

- **Hazard-determining components of labelling:**
  - 3-aminomethyl-3,5,5-trimethylcyclohexylamine
  - Benzyl alcohol
  - Diglycidylether of Bisphenol F
  - bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight $\leq 700$)
  - trimethylhexane-1,6-diamine

- **Risk phrases:**
  - 22 Harmful if swallowed.
  - 34 Causes burns.
Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 14.02.2011  Revision: 14.02.2011
Version number 3

Trade name: T-PASTE 70-2 Hardener

(Contd. of page 1)

43 May cause sensitisation by skin contact.
52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- Safety phrases:
  20 When using do not eat or drink.
  26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
  27/28 After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap.
  36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
  45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
  61 Avoid release to the environment. Refer to special instructions/safety data sheets.

- Special labelling of certain preparations:
  Contains epoxy constituents. See information supplied by the manufacturer.

- Other hazards

- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.

3 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description: Mixture of the substances listed below with harmless additions.

- Dangerous components:

<table>
<thead>
<tr>
<th>CAS</th>
<th>Ingredient Name</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>25322-89-4</td>
<td>Polypropylene glycol</td>
<td>25-50%</td>
</tr>
<tr>
<td>CAS: 2855-13-2</td>
<td>3-aminomethyl-3,5,5-trimethylcyclohexylamine</td>
<td>10-25%</td>
</tr>
<tr>
<td>EINECS: 220-666-8</td>
<td>C R34; Xn R21/22; Xi R43</td>
<td></td>
</tr>
<tr>
<td>CAS: 9046-10-0</td>
<td>Polyoxylalkeneamine</td>
<td>2.5-10%</td>
</tr>
<tr>
<td>CAS: 100-51-6</td>
<td>Benzyl alcohol</td>
<td>2.5-10%</td>
</tr>
<tr>
<td>EINECS: 202-859-9</td>
<td>Xi R43</td>
<td></td>
</tr>
<tr>
<td>CAS: 25620-58-0</td>
<td>trimethylhexane-1,6-diamine</td>
<td>0.5-2.5%</td>
</tr>
<tr>
<td>EINECS: 247-134-8</td>
<td>Xi R43</td>
<td></td>
</tr>
</tbody>
</table>

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

4 First aid measures

- Description of first aid measures
- General information Instantly remove any clothing soiled by the product.
- After inhalation
  Supply fresh air and call for doctor for safety reasons.
  In case of unconsciousness bring patient into stable side position for transport.
- After skin contact
  Instantly wash with water and soap and rinse thoroughly.
- After eye contact
  Rinse opened eye for several minutes under running water. Then consult doctor.
- After swallowing
  Drink copious amounts of water and provide fresh air. Instantly call for doctor.

(Contd. on page 3)
5 Firefighting measures

- **Extinguishing media**
  - Suitable extinguishing agents
    - Water haze
    - Foam
    - Fire-extinguishing powder
    - Carbon dioxide
- **For safety reasons unsuitable extinguishing agents** Water with a full water jet.
- **Advice for firefighters**
  - **Protective equipment:** No special measures required.
  - **Additional information** Collect contaminated fire fighting water separately. It must not enter drains.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
  - Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
  - Inform respective authorities in case product reaches water or sewage system.
  - Do not allow to enter drainage system, surface or ground water.
- **Methods and material for containment and cleaning up:**
  - 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.**
- **Reference to other sections**
  - See Section 8 for information on personal protection equipment.

7 Handling and storage

- **Handling**
  - **Precautions for safe handling**
    - Ensure good ventilation/exhaustion at the workplace.
    - Prevent formation of aerosols.
  - **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
  - **Requirements to be met by storerooms and containers:** Store in cool location.
  - **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
  - Keep container tightly sealed.
  - Protect from heat and direct sunlight.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
  - **Components with limit values that require monitoring at the workplace:**
    - 57-55-6 propane-1,2-diol (25-50%) WEL
    - Long-term value: $474 \times 10^{17}$ mg/m³, 150 ppm
    - *total vapour and particulates **particulates
  - **Additional information:** The lists that were valid during the compilation were used as basis.
Trade name: T-PASTE 70-2 Hardener

- **Exposure controls**
- **Personal protective equipment**
  - **General protective and hygienic measures**
    Keep away from foodstuffs, beverages and food. Take off immediately all contaminated clothing. Wash hands during breaks and at the end of the work. Avoid contact with the eyes and skin.
  - **Breathing equipment:** Use breathing protection in case of insufficient ventilation.
  - **Protection of hands:**
    Protective gloves. The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
  - **Material of gloves**
    The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
  - **Penetration time of glove material**
    The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
  - **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**
    Nitrile rubber, NBR
  - **As protection from splashes gloves made of the following materials are suitable:**
    Nitrile rubber, NBR
  - **Eye protection:**
    Tightly sealed safety glasses.
  - **Body protection:** Protective work clothing.

### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
  - **Appearance:**
    - **Form:** Fluid
    - **Colour:** Violet
  - **Odour:** Amine-like

- **Change in condition**
  - **Melting point/Melting range:** Not determined
  - **Boiling point/Boiling range:** 247°C

- **Flash point:** 201°C
- **Ignition temperature:** 371°C
- **Self-inflammability:** Product is not selfigniting.
- **Danger of explosion:** Product is not explosive.
- **Vapour pressure at 20°C:** 0.1 hPa
10 Stability and reactivity

- Reactivity
  - Chemical stability
    - Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
    - Possibility of hazardous reactions: No dangerous reactions known
  - Hazardous decomposition products: Danger of toxic pyrolysis products

11 Toxicological information

- Information on toxicological effects
- Acute toxicity:
  - LD/LC50 values that are relevant for classification:
    25068-38-6 bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)
    | Route         | LD50 / LC50   |
    |---------------|--------------|
    | Oral          | 10000 mg/kg (rat) |
    | Dermal        | 2000 mg/kg (rat)  |
  - Primary irritant effect:
    - on the skin: Caustic effect on skin and mucous membranes.
    - on the eye: Strong caustic effect.
    - 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:
    - 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

- Toxicity
  - Aquatic toxicity: No further relevant information available.
- Additional ecological information:
- General notes: Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water. Do not allow product to reach ground water, water bodies or sewage system.
- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.
13 Disposal considerations

· Waste treatment methods
  · Recommendation
    Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· European waste catalogue

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>08 00 00</td>
<td>WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS</td>
</tr>
<tr>
<td>08 04 00</td>
<td>wastes from MFSU of adhesives and sealants (including waterproofing products)</td>
</tr>
<tr>
<td>08 04 09*</td>
<td>waste adhesives and sealants containing organic solvents or other dangerous substances</td>
</tr>
</tbody>
</table>

· Uncleaned packagings:
  · Recommendation:
    Packagings that cannot be cleaned are to be disposed of in the same manner as the product.

14 Transport information

· Land transport ADR/RID (cross-border)

  · ADR/RID Class: 8 Corrosive substances.
  · Kemler Number: 80
  · UN-Number: 3259
  · Packaging group: III
  · Label: 8
  · UN proper shipping name: POLYAMINES, SOLID, CORROSIVE, N.O.S. (ISOPHORONEDIAMINE, TRIMETHYLHEXAMETHYLENEDIAMINES)

· Maritime transport IMDG:

  · IMDG Class: 8
  · UN Number: 3259
  · Label: 8
  · Packaging group: III
  · Marine pollutant: No
  · Correct technical name: POLYAMINES, SOLID, CORROSIVE, N.O.S. (ISOPHORONEDIAMINE, TRIMETHYLHEXAMETHYLENEDIAMINES)

· Air transport ICAO-TI and IATA-DGR:

  · ICAO/IATA Class: 8
  · UN/ID Number: 3259
  · Label: 8
  · Packaging group: III
  · Correct technical name: POLYAMINES, SOLID, CORROSIVE, N.O.S. (ISOPHORONEDIAMINE, TRIMETHYLHEXAMETHYLENEDIAMINES)
Safety data sheet  
according to 1907/2006/EC, Article 31

Printing date 14.02.2011  
Revision: 14.02.2011

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**15 Regulatory information**

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- National regulations
- Technical instructions (air):

<table>
<thead>
<tr>
<th>Class</th>
<th>Share in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>NK</td>
<td>33.9</td>
</tr>
</tbody>
</table>

- Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

**16 Other information**

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant phrases
  - R20/22 Harmful by inhalation and if swallowed.
  - R21/22 Harmful in contact with skin and if swallowed.
  - R22  Harmful if swallowed.
  - R34  Causes burns.
  - R36/38 Irritating to eyes and skin.
  - R43  May cause sensitisation by skin contact.
  - R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
  - R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- Training hints
  Training in the safe use of this product should be given and reference made to COSHH Regulations

- Department issuing data specification sheet: Health, Safety & Environmental department.
- Contact: SIMON RHODES

* Data compared to the previous version altered.