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

Product information

<table>
<thead>
<tr>
<th>Trade name</th>
<th>ARALDITE 2011 HARDENER/HAERTER/DURCISSEUR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company</td>
<td>Vantico Ltd.</td>
</tr>
<tr>
<td></td>
<td>Ickleton Road</td>
</tr>
<tr>
<td></td>
<td>CB2 4QA Duxford</td>
</tr>
<tr>
<td>Telephone</td>
<td>+441223832121</td>
</tr>
<tr>
<td>Telefax</td>
<td>+441223493322</td>
</tr>
<tr>
<td>Emergency telephone number</td>
<td>+41 61 966 40 00</td>
</tr>
</tbody>
</table>

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature
Formulated polyaminoamide preparation

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Symbol(s):</th>
<th>R-phrase(s)</th>
<th>Concentration [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>N(3-dimethylaminopropyl)-1,3-propylenediamine</td>
<td>10563-29-8</td>
<td>C</td>
<td>R21/22 R34 R43</td>
<td>4.00 - 10.00</td>
</tr>
<tr>
<td>EC-No.: 234-148-4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION

Irritating to eyes and skin.
May cause sensitization by skin contact.

4. FIRST AID MEASURES

Inhalation : Move to fresh air.
Call a physician immediately.

Eye contact : Rinse immediately with plenty of water for at least 15 minutes.
If eye irritation persists, consult a specialist.

Skin contact : Wash off with soap and plenty of water.
If skin irritation persists, call a physician.

Ingestion : Immediately give plenty of water (if possible charcoal slurry).
Do not induce vomiting.
Obtain medical attention.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Water spray.
Carbon dioxide (CO2).
6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid breathing dust. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.

Environmental precautions: Do not allow material to contaminate ground water system. Prevent product from entering drains.

Methods for cleaning up: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Handling
Advice on safe handling: Provide sufficient air exchange and/or exhaust in work rooms. Ensure adequate ventilation. Handle and open container with care.

Storage
Further information on storage conditions: Keep away from food, drink and animal feeding stuffs. Keep container tightly closed. Keep at temperatures between 2 and 40°C.

Storage hazard class: Storage class 12, Liquids, not dangerous

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Update</th>
<th>Basis</th>
</tr>
</thead>
</table>

Engineering measures
Ensure adequate ventilation, especially in confined areas.
SAFETY DATA SHEET according to applicable EC directive

Ident-No: ARALDITE 2011 HARDENER/HAERTER/DURCISSEUR

Version 5
Print Date 13.03.2003
Revision Date 13.02.2003

Personal protective equipment
Eye protection : Tightly fitting safety goggles.
                Face-shield.
Hand protection : rubber or plastic gloves
Skin and body protection : Safety shoes.
                        long sleeved clothing
Hygiene measures : Keep away from food, drink and animal feeding stuffs.
                  Wash hands before breaks and immediately after handling the
                  product.
Protective measures : Avoid contact with skin, eyes and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form : liquid
Colour : light yellow
Odour : slight
pH : 12
      at (20 °C)
      1:1 in water
Boiling point : > 200 °C
Thermal decomposition : > 200 °C
Flash point : 110 °C
      Method: DIN 51758 (Pensky-Martens Closed Cup)
Vapour pressure : 4 Pa
      at 20 °C
Density : 0.95 g/cm³
      at 25 °C
Water solubility : at 20 °C
      Note: practically insoluble
Viscosity, dynamic : 20,000 - 35,000 mPa.s
      at 25 °C

10. STABILITY AND REACTIVITY

Conditions to avoid : Note: Take necessary action to avoid static electricity
                    discharge.
Materials to avoid : Strong acids and strong bases.
Strong oxidizing agents.

Hazardous decomposition products: Carbon oxides.
Nitrogen oxides. Burning produces obnoxious and toxic fumes.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity: LD50 rat
Dose: > 5,000 mg/kg

Eye irritation: irritating rabbit

Skin irritation: irritating rabbit dermal

Sensitization: Causes sensitization. guinea pig dermal

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

Biodegradability: Result: Not readily biodegradable.

Ecotoxicity effects

Further information on ecology

Additional ecological information: Avoid subsoil penetration.
Prevent product from entering drains.
Do not contaminate surface water.

13. DISPOSAL CONSIDERATIONS

Product: Waste Key Number: 070204
Must be incinerated, when in compliance with local regulations.

Container: Empty containers can be landfilled after cleaning, when in compliance with the Environmental Protection (Duty of Care) Regulations 1991.

14. TRANSPORT INFORMATION

Land transport
ADR:
Regulation: Not dangerous goods

RID:
Regulation: Not dangerous goods

Sea transport

IMDG:
Regulation: Not dangerous goods

Air transport

IATA-DGR:
Regulation: Not dangerous goods

15. REGULATORY INFORMATION
Labelling according to EEC Directive
Labelling required

<table>
<thead>
<tr>
<th>Symbol(s):</th>
<th>Xi</th>
<th>Irritant</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-phrase(s):</td>
<td>R36/38</td>
<td>Irritating to eyes and skin.</td>
</tr>
<tr>
<td></td>
<td>R43</td>
<td>May cause sensitization by skin contact.</td>
</tr>
<tr>
<td>S-phrase(s):</td>
<td>S26</td>
<td>In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.</td>
</tr>
<tr>
<td></td>
<td>S28</td>
<td>After contact with skin, wash immediately with plenty of soap and water.</td>
</tr>
<tr>
<td></td>
<td>S37/39</td>
<td>Wear suitable gloves and eye/face protection.</td>
</tr>
</tbody>
</table>

Hazardous components which must be listed on the label: N(3-dimethylaminopropyl)-1,3-propylenediamine

National legislation

Notification status

: EINECS yes

: TSCA yes
16. OTHER INFORMATION

List of R-phrases (Section 2)

R21/22 Harmful in contact with skin and if swallowed.
R34 Causes burns.
R43 May cause sensitization by skin contact.

The provision of Safety Data Sheets comes under Regulation 6 of CHIP (CHIP is the recognised abbreviation for the Chemicals Hazard Information and Packaging Regulations). This is an addition to the Health and Safety at Work Act 1974. Users of products supplied by Vantico Ltd should take appropriate measures to ensure working practices are in accordance with the Control of Substances Hazardous to Health Regulations (COSHH).

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