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

Trade name : LONZACURE DETDA 80
Use : Intermediate
Company : Lonza Ltd
Muenchensteinerstrasse 38
CH-4002 Basel, Switzerland
Telephone: +41 61 316 81 11
Emergency telephone : Lonza Ltd, CH-4002 Basel, Switzerland
Telephone: +41 61 313 94 94 (24h)
Contact person : prodinfo@lonza.com

2. Hazards identification

Classification
Harmful in contact with skin and if swallowed.
Irritating to eyes.
Harmful: danger of serious damage to health by prolonged exposure if swallowed.
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Components / EC Label</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethylmethylbenzenediamine (CAS-No.: 68479-98-1) (EEC-No.: 270-877-4) Xn, N; R21/22, R36, R48/22, R50/53</td>
<td>&gt; 97,5 %</td>
</tr>
</tbody>
</table>

R-phrase(s) See chapter 16

4. First aid measures

Inhalation : Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration.
Skin contact : After contact with skin, wash immediately with plenty of soap and water. Consult a physician.
Eye contact: In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Call a physician immediately.

Ingestion: Call a physician immediately. Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

5. Fire-fighting measures

Suitable extinguishing media: Water spray, Dry powder, Foam

Specific hazards during fire fighting: Heating or fire can release toxic gas.

Special protective equipment for fire-fighters: In the event of fire, wear self-contained breathing apparatus.

Additional advice: Use water spray to cool unopened containers.

6. Accidental release measures

Personal precautions: Use respirator when performing operations involving potential exposure to vapour of the product.

Environmental precautions: Do not flush into surface water or sanitary sewer system.

Methods for cleaning up: Sweep up or vacuum up spillage and collect in suitable container for disposal.
7. Handling and storage

Handling
Safe handling advice: Avoid contact with skin and eyes. Provide sufficient air exchange and/or exhaust in work rooms.

Advice on protection against fire and explosion: Take precautionary measures against static discharges.

Storage
Requirements for storage areas and containers: Keep container tightly closed. To maintain product quality, do not store in heat or direct sunlight. Keep in a dry, cool and well-ventilated place.

8. Exposure controls/personal protection

Personal protective equipment

Hygiene measures: Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes and clothing.

Respiratory protection: In the case of vapour formation use a respirator with an approved filter. Respirator with a vapour filter (EN 141) Respirator with ABEK filter.

Hand protection: Suitable material: Nitrile rubber
Break through time: > 480 min

Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

Eye protection: Tightly fitting safety goggles

Skin and body protection: Choose body protection according to the amount and concentration of the dangerous substance at the work place. No special protective equipment required.
9. Physical and chemical properties

**Appearance**
- Physical state: liquid
- Colour: pale, darkens with time
- Odour: amine-like

**Safety data**
- **pH**: ca. 8 (1 g/l)
- **Pour point**: -15 °C
  - Method: OECD Test Guideline 102
- **Boiling point/boiling range**: 132 °C (4 hPa)
  - Method: OECD Test Guideline 102
- **Flash point**: closed cup: > 140 °C
  - Method: Pensky-Martens c.c.(DIN 51758)
- **Ignition temperature**: 420 °C
- **Vapour pressure**: 10 - 11 hPa (166 °C)
- **Density**: 1,022 g/cm³ (20 °C)
  - 1,000 g/cm³ (23,6 °C)
  - 0,968 g/cm³ (55 °C)
- **Water solubility**: ca. 10 g/l (20 °C)
- **Solubility**: Organic solvents: completely miscible
- **Viscosity, dynamic**: 185 mPa.s (25 °C)

**Other data**
- **Hygroscopy**: hygroscopic
10. Stability and reactivity

Conditions to avoid : no data available

Materials to avoid : Oxidizing agents

Hazardous decomposition products : nitrogen oxides (NOx), Carbon oxides

Hazardous reactions : Stable under normal conditions.

11. Toxicological information

Acute oral toxicity (LD50) : 738 mg/kg
Species: rat
Method: OECD Test Guideline 401

Acute dermal toxicity (LD50) : > 2 000 mg/kg
Species: rat
Method: OECD Test Guideline 402

Skin irritation : non irritant
Species: rabbit
Exposure time: 4 h
Method: OECD Test Guideline 404

Eye irritation : irritating
Species: rabbit

Sensitisation : not sensitizing
Species: guinea pig
Draize test

Additional advice : see section 16.
12. Ecological information

Ecotoxicity effects

Toxicity to fish (LC50) : 194 mg/l
Species: Leuciscus idus (Golden orfe)
Acute toxicity
Exposure time: 48 h
Method: DIN 38412 Part 15

Toxicity to daphnia (EC50) : < 1 mg/l
Species: Daphnia magna (Water flea)
Immobilization
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to bacteria (EC10) : 170 mg/l
Species: Pseudomonas putida
Cell multiplication inhibition test
Exposure time: 16 h
Method: DIN 38412 Part 8

Persistence and degradability

Biodegradability : Closed Bottle test: < 1 %
Not readily biodegradable.
Testing period: 28 d
Method: OECD 301 D

13. Disposal considerations

Waste from residues : Dispose of in accordance with local regulations.
Contact waste disposal services.

Contaminated packaging : Where possible recycling is preferred to disposal or incineration.
14. Transport information

ADR
Class: 9
Packaging group: III
Classification Code: M6
Labels: Miscellaneous dangerous substances and articles No. 9
Hazard identification No.: 90
UN/ID No.: UN 3082
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diethyltoluenediamine)

RID
Class: 9
Packaging group: III
Classification Code: M6
Labels: Miscellaneous dangerous substances and articles No. 9
Hazard identification No.: 90
UN/ID No.: UN 3082
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diethyltoluenediamine)

IATA Cargo
Class: 9
Packaging group: III
Labels: Miscellaneous dangerous substances and articles No. 9
Packing instruction (cargo aircraft): 914
UN/ID No.: UN 3082
Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (Diethyltoluenediamine)

IATA Passenger
Class: 9
Packaging group: III
Labels: Miscellaneous dangerous substances and articles No. 9
Packing instruction (passenger aircraft): 914
UN/ID No.: UN 3082
Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (Diethyltoluenediamine)
| IMDG-Code | : Class: 9  
|           | Packaging group: III  
|           | Labels: Miscellaneous dangerous substances and articles No. 9  
|           | EmS: F-A , S-F  
| UN/ID No. | : UN 3082  
| Proper shipping name | : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diethyltoluenediamine)  
| 49 CFR | : Class: 9  
|           | Packaging group: III  
|           | Labels: Miscellaneous dangerous substances and articles No. 9  
| UN/ID No. | : UN 3082  
| Proper shipping name | : Environmentally hazardous substances, liquid, n.o.s. (Diethyltoluenediamine)  
| TDG | : Class: 9  
|           | Packaging group: III  
|           | Labels: Miscellaneous dangerous substances and articles No. 9  
| UN/ID No. | : UN 3082  
| Proper shipping name | : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diethyltoluenediamine)  

15. Regulatory information

Additional advice : Classification and labelling according to Directive 67/548/EEC, Annex I:

Index-No. : 612-130-00-0

Symbol(s) : 

: Harmful
 : Dangerous for the environment

R-phrase(s) R21/22: Harmful in contact with skin and if swallowed.
R36: Irritating to eyes.
R48/22: Harmful: danger of serious damage to health by prolonged exposure if swallowed.
R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrase(s) S 2: Keep out of the reach of children.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28: After contact with skin, wash immediately with plenty of water.
S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.
S60: This material and its container must be disposed of as hazardous waste.
S61: Avoid release to the environment. Refer to special instructions/ Safety data sheets.

General advice : Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In Annex I, a general designation of the following type is sometimes used: “xylanol”. In this case the manufacturer or any other person who markets such a substance must state on the label whether the substance is a specific isomer (a) or a mixture of isomers (b). Example: (a) 2,4-dimethylphenol (b) xylanol (mixture of isomers).

National legislation

Water contaminating class (Germany) : WGK 2: water endangering

Poison class (Switzerland) : GK 3

16. Other information
SAFETY DATA SHEET

LONZACURE DETDA 80

Version: 11.11.2008 / EN

Other regulations : A summary of toxicological data may be obtained on request (Department: Product Safety and Toxicology). Long-term toxicological studies showed serious health damage to laboratory animals.

R-phrase(s)

R21/22 : Harmful in contact with skin and if swallowed.
R36 : Irritating to eyes.
R48/22 : Harmful: danger of serious damage to health by prolonged exposure if swallowed.
R50/53 : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.