1- Product and company identification
Trade name: SD 8824
Curing agent for epoxy resin

Manufacturer / Supplier:
SICOMIN Composites
RN 568 Quartier la Moutte BP 23
13 161 Châteauneuf-les-Martigues Cédex -France-
Tél: 33.04.42.42.30.20 Fax: 33.04.42.81.29.29 composites@sicomin.com

2- Composition / Information on ingredients
Chemical characterization: Polyamines blend

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Chemical Name</th>
<th>%</th>
<th>Symbol</th>
<th>Risk</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>15520-10-2</td>
<td>Methylpentane diamin</td>
<td>&lt; 70</td>
<td>C</td>
<td>20/22</td>
<td>34 52</td>
</tr>
<tr>
<td>1477-55-0</td>
<td>m-Xylene diamin</td>
<td>&lt; 50</td>
<td>C</td>
<td>22</td>
<td>34</td>
</tr>
</tbody>
</table>

3- Hazards Identification

C: Corrosive
R 20/22: Harmful by inhalation and by ingestion
R 34: Causes burns
R 52: Harmful to aquatic organism

Signs and symptoms of exposure (Possible longer term effects):
Repeated and/or prolonged exposures may result in: adverse respiratory effects (such as cough, tightness of chest or shortness of breath); adverse skin effects (such as defatting, rash, irritation or corrosion); adverse eye effects (such as conjunctivitis or corneal damage).

4- First aid measures

Signs and symptoms of exposure (acute effects)

Eye contact:
Rinse immediately with plenty of water for at least 15’. Get medical attention.

Skin contact:
Immediately remove contaminated clothing. Remove the excess and wash with water and soap. Get medical attention.

Ingestion:
Do not induce vomiting. Consult immediately a physician.

Inhalation:
Remove from the contaminated area and keep warm and at rest.

5- Fire fighting measures

Suitable extinguishing agents:
Powder CO₂ foam. Cool the containers with water spray

Products to avoid:
ND

Products of combustion will include:
Poison gas as nitrogen gas (NOx), carbon monoxide (CO)

Protective equipment:
Use breathing apparatus
6- Accidental release measures

**Individual precautions:**
- Use gloves, goggles, masks and protective clothing
- Use breathing equipment if the area is narrow, keep fire sources away

**Environmental precautions:**
- Keep the product away from superficial and underground water. In the event of product entering waters or drainage system or pollution soil or plants, informing fire service or police.

**Cleaning procedures:**
- Soak up inert material in accordance with law regulations. Wash with water & detergents.

7- Handling and storing

**Handling:**
- Use personal protection (see point 8). Provide adequate ventilation. Avoid inhalation vapours.

**Storring:**
- Store in well ventilated area, in close containers.
- The product is sensitive to CO$_2$ and humidity.

8- Exposure controls / personal protection

**Precautionary measures:**
- Provide adequate ventilation
- AEL (8h and 12 h TWA, vapors) = 0.4 ml/m$^3$

**Respiratory protection:**
- Necessary in case the area is not well ventilated: mask with adequate filters (A2 / EN 143 norm)

**Hand protection:**
- Use appropriate gloves

**Eyes protection:**
- Wear goggles or a face visor

**Skin protection:**
- Use protective clothing, exercising reasonable personal cleanliness

9- Chemical / Physical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Yellow</td>
</tr>
<tr>
<td>Odour</td>
<td>Amoniacal</td>
</tr>
<tr>
<td>Ph</td>
<td>&gt; 12 (50 g/l water)</td>
</tr>
<tr>
<td>Boiling point</td>
<td>&gt; 100 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 82 °C</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Partially soluble</td>
</tr>
<tr>
<td>Solubility in organic solvents</td>
<td>Alcohols and aromatic hydrocarbons</td>
</tr>
<tr>
<td>Specific gravity (Kg / l 20°C)</td>
<td>0.94 ± 0.02</td>
</tr>
<tr>
<td>Viscosity (mPa.s / 25°C)</td>
<td>6 ± 2</td>
</tr>
<tr>
<td>Pression de vapeur (mm Hg / 25°C)</td>
<td>ND</td>
</tr>
</tbody>
</table>

10- Stability and reactivity data

**Precautions:** ND

**Materials to avoid:**
- Acids, strong oxidizers, epoxidies, ketones

**Hazardous decomposition products:**
- In case of fire, the product may develop toxic gas as nitrous gas (NOx), carbon monoxide (CO), etc..
11- Toxicological information
Consider the concentration of each substance to evaluate toxicological effects caused by exposure

<table>
<thead>
<tr>
<th>Cas number</th>
<th>Inhalation</th>
<th>Ingestion</th>
<th>Skin contact</th>
<th>Long term effect</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LC 50 (rat)</td>
<td>LD 50 (rat)</td>
<td>LD 50 (rabbit)</td>
<td>Skin cobaye</td>
</tr>
<tr>
<td></td>
<td>mg / l / 4h</td>
<td>mg/kg</td>
<td>mg/kg</td>
<td></td>
</tr>
<tr>
<td>15520-10-2</td>
<td>1.22</td>
<td>1690</td>
<td>nd</td>
<td>nd</td>
</tr>
<tr>
<td>1477-55-0</td>
<td>2.4</td>
<td>1040</td>
<td>nd</td>
<td>nd</td>
</tr>
</tbody>
</table>

**Ingestion:**
Corrosive. May cause burns of mouth and severe gastrointestinal trouble.

**Skin absorption:**
Prolonged of widespread exposure may result in the absorption of potentially harmful amounts of material.
May cause chemical burns and develop skin allergy.

**Inhalation:**
Vapours are irritating and may develop allergy.

**Eye contact:**
May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness.

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12- Ecological Information

**General notes:**
Do not empty into drains. Easily biodegradable.
CAS 15520-10-2: CL 50 / 48 h / Ide (Leuciscus Idus) = 130 mgl
EC 10 / 18 h / Bacteries > 30 mg /l

13- Disposal considerations
Dispose of in accordance with local and national regulations

14- Transport Information

**Correct technical name:** Liquid polyamines, corrosives, nos
**Content:** m-Xylenediamin, Methylpentane diamine
**ONU N°:** 2735

**Air transport - OACI / IATA**
Class 8 Group: III FP : > 80 °C
49 CFR 171.11

**Sea transport - IMDG**
Class 8 Group: III IMDG page: 8109.2
N° EMS: 8-05 MFAG: 320

**Road transport - ADR / RID**
Class 8, 53(b) HI/Kemler n°: 80

15- Regulatory information

**Label EEC:**
Regulation 88 / 379

**Hazard symbol:**
C Corrosive

**Risk Phrases :**
R 20/22 Harmful by inhalation and by ingestion
R 34: Causes burns
R 52 Harmful to aquatic organism
Safety Phrases:
S 26: In case of contact with eye, rinse immediately with plenty of water and seek medical advice
S 36/37/39: Wear suitable protective clothing, gloves, and eye face protection
S 38: In case the area is not well ventilated: mask with adequate filters
S 46 In case of accident or if you feel unwell, seek medical advice
S 61 Avoid release to the environment. Refer to special instructions / safety data sheets

16-Other information
Note:
The information herein is given in good faith and to the best of our knowledge but no warranty, express or implied, is made. Since the use of this information and the conditions of use of the product are not within our control, it is the user's obligation to determine the condition of safe use of the products.

NA: Not applicable ND: Not determined

Department issuing data specification sheet / Contact:
Mr Jean-Pierre GROS (R&D) Tel: 33.04.42.42.30.20 Fax: 33.04.42.81.29.29