SAFETY DATA SHEET
FLEXANE 60L HARDENER

1. Identification

Product identifier
Product name       FLEXANE 60L HARDENER
Product number     X0022

Recommended use of the chemical and restrictions on use
Application        Hardener.

Details of the supplier of the safety data sheet
Supplier
ITW Performance Polymers
Bay 150
Shannon Industrial Estate
Co. Clare
Ireland
V14 DF82
353(61)771500
353(61)471285
mail@itwpp.com

Emergency telephone number
Emergency telephone     +44 (0) 1235 239670

2. Hazard(s) identification

Classification of the substance or mixture
Physical hazards        Not Classified
Health hazards          STOT RE 2 - H373
Environmental hazards   Aquatic Chronic 2 - H411

Label elements
Pictogram
Signal word            Warning
Hazard statements       H373 May cause damage to organs through prolonged or repeated exposure.
                        H411 Toxic to aquatic life with long lasting effects.
Precautionary statements P260 Do not breathe vapor/spray.
                        P273 Avoid release to the environment.
                        P314 Get medical advice/attention if you feel unwell.
                        P391 Collect spillage.
                        P501 Dispose of contents/container in accordance with national regulations.
FLEXANE 60L HARDENER

Contains
DIETHYLMETHYLBENZENEDIAMINE

Other hazards
This product does not contain any substances classified as PBT or vPvB.

3. Composition/Information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Substance</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIETHYLMETHYLBENZENEDIAMINE</td>
<td>10-30%</td>
</tr>
</tbody>
</table>

CAS number: 68479-98-1
M factor (Acute) = 1
M factor (Chronic) = 1

Classification
Acute Tox. 4 - H302
Acute Tox. 4 - H312
Eye Irrit. 2 - H319
STOT RE 2 - H373
Aquatic Acute 1 - H400
Aquatic Chronic 1 - H410

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

4. First-aid measures

Description of first aid measures

General information
Avoid contact with eyes. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Inhalation
Move affected person to fresh air at once. Get medical attention if any discomfort continues.

Ingestion
Give plenty of water to drink. Try to induce vomiting. Get medical attention immediately.

Skin Contact
Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if irritation persists after washing.

Eye contact
Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes and get medical attention. Get medical attention if irritation persists after washing.

Most important symptoms and effects, both acute and delayed

General information
The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Indication of immediate medical attention and special treatment needed

Notes for the doctor
No specific recommendations. If in doubt, get medical attention promptly.

5. Fire-fighting measures

Extinguishing media
Suitable extinguishing media
Extinguish with foam, carbon dioxide or dry powder.

Special hazards arising from the substance or mixture
Specific hazards
Irritating gases or vapors.

Advice for firefighters
FLEXANE 60L HARDENER

**Protective actions during firefighting**
Avoid breathing fire gases or vapors. Keep up-wind to avoid fumes. Do not use water jet as an extinguisher, as this will spread the fire. Control run-off water by containing and keeping it out of sewers and watercourses.

**Special protective equipment for firefighters**
Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

**6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions**
Wear protective clothing as described in Section 8 of this safety data sheet. Avoid contact with skin and eyes. Do not breathe vapour.

**Environmental precautions**
Avoid or minimize the creation of any environmental contamination. Do not discharge into drains or watercourses or onto the ground. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

**Methods and material for containment and cleaning up**

**Methods for cleaning up**
Absorb spillage with non-combustible, absorbent material. Collect and place in suitable waste disposal containers and seal securely. Containers with collected spillage must be properly labeled with correct contents and hazard symbol.

**Reference to other sections**
Wear protective clothing as described in Section 8 of this safety data sheet.

**7. Handling and storage**

**Precautions for safe handling**

**Usage precautions**
Avoid contact with skin and eyes. Handle and open container with care. Use only in well-ventilated areas. Do not eat, drink or smoke when using the product. Good personal hygiene procedures should be implemented.

**Conditions for safe storage, including any incompatibilities**

**Storage precautions**
Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep away from heat, sparks and open flame. Store away from incompatible materials (see Section 10).

**Specific end use(s)**
The identified uses for this product are detailed in Section 1.

**8. Exposure Controls/personal protection**

**Ingredient comments**
No exposure limits known for ingredient(s).

**Exposure controls**

**Protective equipment**

**Appropriate engineering controls**
Provide adequate general and local exhaust ventilation.
FLEXANE 60L HARDENER

Eye/face protection
Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses. Personal protective equipment for eye and face protection should comply with OSHA 1910.133.

Hand protection
Use protective gloves. It is recommended that gloves are made of the following material: Neoprene. It is recommended that gloves are made of the following material: Nitrile rubber. To protect hands from chemicals, gloves should comply with OSHA 1910.138 and be demonstrated to be impervious to the chemical and resist degradation. The selected gloves should have a breakthrough time of at least 8 hours.

Other skin and body protection
Wear chemical protective suit.

Hygiene measures
Provide eyewash station and safety shower. Keep away from food, drink and animal feeding stuffs. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. Do not eat, drink or smoke when using the product. Promptly remove any clothing that becomes wet or contaminated.

Respiratory protection
If ventilation is inadequate, suitable respiratory protection must be worn. Respirator selection must be based on exposure levels, the hazards of the product and the safe working limits of the selected respirator. Check that the respirator fits tightly and the filter is changed regularly. Wear a respirator fitted with the following cartridge: Organic vapor filter. Gas filter, type A2. Half mask and quarter mask respirators with replaceable filter cartridges should comply with OSHA 1910.134.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Liquid.</td>
</tr>
<tr>
<td>Color</td>
<td>Black.</td>
</tr>
<tr>
<td>Odor</td>
<td>Slight.</td>
</tr>
<tr>
<td>pH (concentrated solution)</td>
<td>8.5 @ 25 ºC</td>
</tr>
<tr>
<td>Initial boiling point and range</td>
<td>204°C @</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt;177°C</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>&lt;1 mmHg @ °C</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.08 @ 20 ºC</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Insoluble in water.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>140-200 mPa s @ 25°C</td>
</tr>
<tr>
<td>Other information</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

10. Stability and reactivity

Reactivity
Acids. Strong oxidizing agents.

Stability
Stable at normal ambient temperatures and when used as recommended.

Possibility of hazardous reactions
Not available.
FLEXANE 60L HARDENER

Conditions to avoid
Avoid heat, flames and other sources of ignition.

Materials to avoid
Avoid contact with the following materials: Acids. Oxidizing agents.

Hazardous decomposition products
Fire or high temperatures create: Nitrous gases (NOx). Oxides of the following substances: Carbon monoxide (CO). Carbon dioxide (CO2). Vapours/gases/fumes of: Ammonia or amines.

11. Toxicological information

Information on toxicological effects

Acute toxicity - oral
ATE oral (mg/kg) 2,936.51

Acute toxicity - dermal
ATE dermal (mg/kg) 6,460.33

Inhalation
Irritating to respiratory system.

Ingestion
Harmful if swallowed.

Skin Contact
Irritating to skin. Harmful in contact with skin.

Eye contact
Irritating to eyes.

12. Ecological Information

Ecotoxicity
Avoid releasing into the environment. The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

Toxicity
Very toxic to aquatic organisms.

Persistence and degradability
Persistence and degradability
The product is not readily biodegradable.

Bioaccumulative potential
Bio-Accumulative Potential
No data available on bioaccumulation.

Mobility in soil
Mobility
Not considered mobile.

Other adverse effects
Other adverse effects
Not available.

13. Disposal considerations

Waste treatment methods
General information
When handling waste, the safety precautions applying to handling of the product should be considered.

Disposal methods
Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Waste class
08 04 99

14. Transport information
FLEXANE 60L HARDENER

UN Number
UN No. (TDG) 3082
UN No. (IMDG) 3082
UN No. (ICAO) 3082
UN No. (DOT) 3082

UN proper shipping name
Proper shipping name (TDG) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DIETHYLMETHYLBENZENEDIAMINE, PROPYLENE GLYCOL DIBENZOATE)
Proper shipping name (IMDG) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DIETHYLMETHYLBENZENEDIAMINE, PROPYLENE GLYCOL DIBENZOATE)
Proper shipping name (ICAO) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DIETHYLMETHYLBENZENEDIAMINE, PROPYLENE GLYCOL DIBENZOATE)
Proper shipping name (DOT) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DIETHYLMETHYLBENZENEDIAMINE, PROPYLENE GLYCOL DIBENZOATE)

Transport hazard class(es)
No information required.

TDG class 9
TDG label(s) 9
IMDG Class 9
ICAO class/division 9

Transport labels

Packing group
TDG Packing Group III
IMDG packing group III
ICAO packing group III
DOT packing group III

Environmental hazards
Environmentally Hazardous Substance

Special precautions for user
EmS F-A, S-F

15. Regulatory information

16. Other information
FLEXANE 60L HARDENER

Revision date 4/3/2018
Revision 13
Supersedes date 4/28/2016

Hazard statements in full
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H319 Causes serious eye irritation.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic 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.