SAFETY DATA SHEET
FLEXANE 60L HARDENER

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
Product name          FLEXANE 60L HARDENER
Product number        X0022

1.2. Relevant identified uses of the substance or mixture and uses advised against
Identified uses       Hardener.

1.3. 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

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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Classification (EC 1272/2008)
Physical hazards      Not Classified
Health hazards        Eye Irrit. 2 - H319 STOT RE 2 - H373
Environmental hazards Aquatic Chronic 2 - H411

2.2. Label elements
Pictogram

Signal word          Warning
Hazard statements    H319 Causes serious eye irritation.
                      H373 May cause damage to organs through prolonged or repeated exposure.
                      H411 Toxic to aquatic life with long lasting effects.
FLEXANE 60L HARDENER

Precautionary statements
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314 Get medical advice/ attention if you feel unwell.
P501 Dispose of contents/ container in accordance with national regulations.

Contains
DIETHYLMETHYLBENZENEDIAMINE

Supplementary precautionary statements
P260 Do not breathe vapour/ spray.
P264 Wash contaminated skin thoroughly after handling.
P273 Avoid release to the environment.
P337+P313 If eye irritation persists: Get medical advice/ attention.
P391 Collect spillage.

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

SECTION 3: Composition/information on ingredients

3.2. Mixtures

<table>
<thead>
<tr>
<th>DIETHYLMETHYLBENZENEDIAMINE</th>
<th>10-30%</th>
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<tbody>
<tr>
<td>CAS number: 68479-98-1</td>
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</tr>
<tr>
<td>EC number: 270-877-4</td>
<td></td>
</tr>
<tr>
<td>M factor (Acute) = 1</td>
<td></td>
</tr>
<tr>
<td>M factor (Chronic) = 1</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>CARBON BLACK</th>
<th>&lt;1%</th>
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</thead>
<tbody>
<tr>
<td>CAS number: 1333-86-4</td>
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</tr>
</tbody>
</table>

Classification
Not Classified

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

SECTION 4: First aid measures

4.1. 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.

4.2. Most important symptoms and effects, both acute and delayed
FLEXANE 60L HARDENER

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

4.3. Indication of any immediate medical attention and special treatment needed
Notes for the doctor
No specific recommendations. If in doubt, get medical attention promptly.

SECTION 5: Firefighting measures

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

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

5.3. Advice for firefighters
Protective actions during firefighting
Avoid breathing fire gases or vapours. 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.

SECTION 6: Accidental release measures

6.1. 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.

6.2. Environmental precautions
Environmental precautions
Avoid or minimise 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.

6.3. 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 labelled with correct contents and hazard symbol.

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

SECTION 7: Handling and storage

7.1. 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.

7.2. 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).

7.3. Specific end use(s)
Specific end use(s)
The identified uses for this product are detailed in Section 1.2.
SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

CARBON BLACK

Long-term exposure limit (8-hour TWA): 3.5 mg/m³

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

8.2. Exposure controls

Protective equipment

Appropriate engineering controls
Provide adequate general and local exhaust ventilation.

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 European Standard EN166.

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 European Standard EN374. 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 vapour filter. Gas filter, type A2. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance
Liquid.

Colour
Black.

Odour
Slight.

pH
pH (concentrated solution): 8.5 @ 25 ºC

Initial boiling point and range
204°C @

Flash point
>177°C
FLEXANE 60L HARDENER

Vapour pressure <1 mmHg @ °C
Relative density 1.08 @ 20 °C
Solubility(ies) Insoluble in water.
Viscosity 140-200 mPa s @ 25°C

9.2. Other information
Other information Not available.

SECTION 10: Stability and reactivity

10.1. Reactivity
Reactivity Acids. Strong oxidising agents.

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

10.3. Possibility of hazardous reactions
Possibility of hazardous reactions Not available.

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

10.5. Incompatible materials
Materials to avoid Avoid contact with the following materials: Acids. Oxidising agents.

10.6. Hazardous decomposition products
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.

SECTION 11: Toxicological information

11.1. 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.

SECTION 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.

12.1. Toxicity
FLEXANE 60L HARDENER

Toxicity
Very toxic to aquatic organisms.

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

12.3. Bioaccumulative potential
Bioaccumulative potential
No data available on bioaccumulation.

12.4. Mobility in soil
Mobility
Not considered mobile.

12.5. Results of PBT and vPvB assessment
Results of PBT and vPvB assessment
This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects
Other adverse effects
Not available.

SECTION 13: Disposal considerations

13.1. 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

SECTION 14: Transport information

14.1. UN number
UN No. (ADR/RID) 3082
UN No. (IMDG) 3082
UN No. (ICAO) 3082

14.2. UN proper shipping name
Proper shipping name (ADR/RID) ENVIROMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DIETHYLMETHYLBENZENEDIAMINE, PROPYLENE GLYCOL DIBENZOATE)
Proper shipping name (IMDG) ENVIROMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DIETHYLMETHYLBENZENEDIAMINE, PROPYLENE GLYCOL DIBENZOATE)
Proper shipping name (ICAO) ENVIROMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DIETHYLMETHYLBENZENEDIAMINE, PROPYLENE GLYCOL DIBENZOATE)

14.3. Transport hazard class(es)
No information required.

ADR/RID class 9
ADR/RID label 9
IMDG class 9
FLEXANE 60L HARDENER

ICAO class/division  9

Transport labels

14.4. Packing group
ADR/RID packing group  III
IMDG packing group  III
ICAO packing group  III

14.5. Environmental hazards
Environmentally hazardous substance/marine pollutant

14.6. Special precautions for user
EmS  F-A, S-F
Emergency Action Code  •3Z
Hazard Identification Number  (ADR/RID)  90
Tunnel restriction code  (E)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.2. Chemical safety assessment
No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision date  03/04/2018
Revision  13
Supersedes date  28/04/2016

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.
FLEXANE 60L HARDENER

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.