



## SAFETY DATA SHEET FLEXANE 80/94L HARDENER

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

PRODUCT NAME FLEXANE 80/94L HARDENER  
 PRODUCT NO. X0023  
 SUPPLIER ITW DEVCON  
 BAY 150  
 SHANNON INDUSTRIAL ESTATE  
 SHANNON  
 CO CLARE  
 IRELAND  
 T: +353 (0)61471299  
 F: 353(0)61471285  
 EMERGENCY TELEPHONE +44 (0)208 762 8322

### 2 HAZARDS IDENTIFICATION

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

CLASSIFICATION Xn;R21/22, R48/20. Xi;R36. N;R50/53.

### 3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content	Classification
DIETHYLMETHYLBENZENEDIAMINE	270-877-4	68479-98-1	30-60%	Xn;R21/22,R48/22 Xi;R36 N;R50/53
PROPYLENE GLYCOL DIBENZOATE		19224-26-1	1-5%	N;R51/53.

The Full Text for all R-Phrases are Displayed in Section 16

### 4 FIRST-AID MEASURES

#### GENERAL INFORMATION

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

#### INHALATION

Move the exposed person to fresh air at once. Contact physician if discomfort continues.

#### INGESTION

Do not induce vomiting. Drink plenty of water. Get medical attention.

#### SKIN CONTACT

Promptly wash contaminated skin with soap or mild detergent and water. Promptly remove clothing if soaked through and wash as above.

#### EYE CONTACT

Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes and get medical attention. Contact physician if irritation persists.

### 5 FIRE-FIGHTING MEASURES

#### EXTINGUISHING MEDIA

Extinguish with foam, carbon dioxide or dry powder.

#### SPECIAL FIRE FIGHTING PROCEDURES

Avoid breathing fire vapours. Keep up-wind to avoid fumes. Avoid water in straight hose stream; will scatter and spread fire. Keep run-off water out of sewers and water sources. Dike for water control.

**FLEXANE 80/94L HARDENER****SPECIFIC HAZARDS**

By heating and fire, irritating vapours/gases may be formed.

**PROTECTIVE MEASURES IN FIRE**

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

**6 ACCIDENTAL RELEASE MEASURES****PERSONAL PRECAUTIONS**

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

**ENVIRONMENTAL PRECAUTIONS**

Do not allow ANY environmental contamination. Do not discharge into drains, water courses or onto the ground. Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environmental Agency or other appropriate regulatory body.

**SPILL CLEAN UP METHODS**

Absorb spillage with non-combustible, absorbent material. Transfer to a container for disposal. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

**7 HANDLING AND STORAGE****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. Observe good industrial hygiene practices.

**STORAGE PRECAUTIONS**

Store in tightly closed original container in a dry, cool and well-ventilated place. Keep away from heat, sparks and open flame.

**8 EXPOSURE CONTROLS/PERSONAL PROTECTION****PROTECTIVE EQUIPMENT****PROCESS CONDITIONS**

Provide eyewash, quick drench.

**ENGINEERING MEASURES**

Provide adequate general and local exhaust ventilation.

**RESPIRATORY EQUIPMENT**

If ventilation is insufficient, suitable respiratory protection must be provided.

**HAND PROTECTION**

Protective gloves are recommended. Neoprene gloves are recommended. Nitrile gloves are recommended.

**EYE PROTECTION**

Wear approved, tight fitting safety glasses where splashing is probable.

**HYGIENE MEASURES**

Keep away from food, drink and animal feeding stuffs. Good personal hygiene is necessary. Wash hands and contaminated areas with water and soap before leaving the work site. Do not eat, drink or smoke when using the product.

**SKIN PROTECTION**

Protection suit must be worn.

**9 PHYSICAL AND CHEMICAL PROPERTIES****APPEARANCE**

Liquid

**COLOUR**

Black

**ODOUR**

Slight odour

**BOILING POINT (°C)**

>232

**MELTING POINT (°C)**

n/d

## FLEXANE 80/94L HARDENER

RELATIVE DENSITY	1.08 20 °C	VAPOUR DENSITY (air=1)	<1
pH-VALUE, CONC. SOLUTION	8.5 @ 25 °C	VISCOSITY	160-320 mPas 25
FLASH POINT (°C)	>177		

### 10 STABILITY AND REACTIVITY

#### STABILITY

Stable under normal temperature conditions and recommended use.

#### CONDITIONS TO AVOID

Avoid heat, flames and other sources of ignition.

#### MATERIALS TO AVOID

Avoid contact with acids and oxidising substances.

#### HAZARDOUS DECOMPOSITION PRODUCTS

Fire or high temperatures create: Nitrous gases (NO<sub>x</sub>). Oxides of: Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Vapours/gases/fumes of: Ammonia or amines.

### 11 TOXICOLOGICAL INFORMATION

TOXIC DOSE 1 - LD 50 >500 mg/kg (oral rat)

#### INHALATION

Irritating to respiratory system. Harmful: danger of serious damage to health by prolonged exposure through inhalation.

#### 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 to the environment. The product contains a substance which is very toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

#### DEGRADABILITY

The product is not readily biodegradable.

### 13 DISPOSAL CONSIDERATIONS

#### DISPOSAL METHODS

Dispose of waste and residues in accordance with local authority requirements.

#### WASTE CLASS

08 04 99

### 14 TRANSPORT INFORMATION



UK ROAD CLASS

9

**FLEXANE 80/94L HARDENER**

PROPER SHIPPING NAME	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DIETHYLMETHYLBENZENEDIAMINE, PROPYLENE GLYCOL DIBENZOATE)		
UN NO. ROAD	3082	UK ROAD PACK GR.	III
ADR CLASS NO.	9	ADR CLASS	Class 9: Miscellaneous dangerous substances and articles.
ADR PACK GROUP	III	HAZARD No. (ADR)	90
ADR LABEL NO.	9	HAZCHEM CODE	3Z
CEFIC TEC(R) NO.	90GM6-III	RID CLASS NO.	9
RID PACK GROUP	III	UN NO. SEA	3082
IMDG CLASS	9	IMDG PACK GR.	III
EMS	F-A, S-F	MARINE POLLUTANT	No.
UN NO. AIR	3082	AIR CLASS	9
AIR PACK GR.	III		

**15 REGULATORY INFORMATION**

LABELLING



Harmful



Dangerous for the environment

CONTAINS

DIETHYLMETHYLBENZENEDIAMINE

RISK PHRASES

R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R36	Irritating to eyes.
R21/22	Harmful in contact with skin and if swallowed.
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.

SAFETY PHRASES

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.

**16 OTHER INFORMATION**

REVISION DATE	26/09/2008
REV. NO./REPL. SDS GENERATED	6
DATE	11.01.05

RISK PHRASES IN FULL

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.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

DISCLAIMER

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.



## SAFETY DATA SHEET FLEXANE 80L RESIN.

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

PRODUCT NAME	FLEXANE 80L RESIN.
PRODUCT NO.	X0020
SUPPLIER	ITW DEVCON BAY 150 SHANNON INDUSTRIAL ESTATE SHANNON CO CLARE IRELAND T: +353 (0)61471299 F: 353(0)61471285
EMERGENCY TELEPHONE	+44 (0)208 762 8322

### 2 HAZARDS IDENTIFICATION

Harmful by inhalation. May cause sensitisation by inhalation and skin contact.

CLASSIFICATION Xn;R20. R42/43.

### 3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content	Classification
4,4'-METHYLENEDI(CYCLOHEXYL ISOCYANATE)	225-863-2	5124-30-1	1-5%	T;R23 R42/43 Xi;R36/37/38

The Full Text for all R-Phrases are Displayed in Section 16

### 4 FIRST-AID MEASURES

#### GENERAL INFORMATION

Persons allergic to isocyanates, and particularly those suffering from asthma or other respiratory conditions, should not work with isocyanates. In case of accident or if you feel unwell, seek medical advice immediately (show label where possible). Persons with impaired lung functions should not handle this preparation. Persons susceptible for allergic reactions should not handle this product.

#### INHALATION

Move the exposed person to fresh air at once. Contact physician if discomfort continues.

#### INGESTION

Rinse mouth thoroughly. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Get medical attention.

#### SKIN CONTACT

Remove contaminated clothing immediately and wash skin with soap and water. Contact physician if irritation persists.

#### EYE CONTACT

Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes and get medical attention.

### 5 FIRE-FIGHTING MEASURES

#### EXTINGUISHING MEDIA

Extinguish with foam, carbon dioxide or dry powder.

#### SPECIAL FIRE FIGHTING PROCEDURES

Cool containers exposed to flames with water until well after the fire is out. Keep up-wind to avoid fumes. Keep run-off water out of sewers and water sources. Dike for water control.

**FLEXANE 80L RESIN.****SPECIFIC HAZARDS**

Avoid breathing fire vapours.

**PROTECTIVE MEASURES IN FIRE**

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

**6 ACCIDENTAL RELEASE MEASURES****PERSONAL PRECAUTIONS**

Provide adequate ventilation. Wear protective clothing as described in Section 8 of this safety data sheet.

**ENVIRONMENTAL PRECAUTIONS**

Do not discharge into drains, water courses or onto the ground. Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environmental Agency or other appropriate regulatory body.

**SPILL CLEAN UP METHODS**

Absorb spillage with non-combustible, absorbent material. Transfer to a container for disposal. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

**7 HANDLING AND STORAGE****USAGE PRECAUTIONS**

Handle and open container with care. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level. Do not eat, drink or smoke when using the product. Observe good industrial hygiene practices.

**STORAGE PRECAUTIONS**

Store in tightly closed original container in a dry, cool and well-ventilated place.

**8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

Name	Std	TWA - 8 hrs		STEL - 15 min		Notes
4,4'-METHYLENEDI(CYCLOHEXYL ISOCYANATE)	WEL		0.02 mg/m3(Sen)		0.07 mg/m3(Sen)	

WEL = Workplace Exposure Limit.

**PROTECTIVE EQUIPMENT****ENGINEERING MEASURES**

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined workplace exposure limit is not exceeded.

**RESPIRATORY EQUIPMENT**

In case of inadequate ventilation or when the product is heated, use suitable respiratory equipment with gas filter (type A2).

**HAND PROTECTION**

Use protective gloves made of: Rubber, neoprene or PVC.

**EYE PROTECTION**

Use approved safety goggles or face shield.

**HYGIENE MEASURES**

Keep away from food, drink and animal feeding stuffs. Good personal hygiene is necessary. Wash hands and contaminated areas with water and soap before leaving the work site. Do not eat, drink or smoke when using the product.

**SKIN PROTECTION**

Protection suit must be worn.

**9 PHYSICAL AND CHEMICAL PROPERTIES****APPEARANCE**

Liquid

**FLEXANE 80L RESIN.**

COLOUR	Clear		
BOILING POINT (°C)	>149.	MELTING POINT (°C)	n/d
RELATIVE DENSITY	1.04 25 °C	VAPOUR PRESSURE	<10 mmHg 25
pH-VALUE, CONC. SOLUTION	7 @ 25 °C	VISCOSITY	3.2-8.5 Pas
FLASH POINT (°C)	>234.		

**10 STABILITY AND REACTIVITY****STABILITY**

Stable under normal temperature conditions and recommended use.

**CONDITIONS TO AVOID**

Avoid heat, flames and other sources of ignition.

**MATERIALS TO AVOID**

Avoid contact with: Water, moisture. Alcohols, glycols. Amines. Alkalies.

**HAZARDOUS DECOMPOSITION PRODUCTS**

Fire or high temperatures create: Nitrous gases (NOx). Oxides of: Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Vapours/gases/fumes of: Ammonia or amines.

**11 TOXICOLOGICAL INFORMATION****INHALATION**

Irritating to respiratory system. May cause sensitisation by inhalation.

**SKIN CONTACT**

Irritating to skin. Risk of sensitisation or allergic reactions among sensitive individuals.

**HEALTH WARNINGS**

Persons allergic to isocyanates, and particularly those suffering from asthma or other respiratory conditions, should not work with isocyanates. Persons with impaired lung functions should not handle this preparation. Persons susceptible for allergic reactions should not handle this product. Preparation contains small volumes of isocyanate which may cause allergic reaction and irritation of respiratory system.

Name	4,4'-METHYLENEDI(CYCLOHEXYL ISOCYANATE)
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**12 ECOLOGICAL INFORMATION**

LC 50, 96 Hrs, FISH mg/l	1.2mg/l
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EC 50, 48 Hrs, DAPHNIA, mg/l	>500mg/l
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**MOBILITY**

Do not discharge into drains, water courses or onto the ground.

**DEGRADABILITY**

Assessment of biological degradability (Closed-Bottle Test) 60 %.

**13 DISPOSAL CONSIDERATIONS****DISPOSAL METHODS**

Dispose of waste and residues in accordance with local authority requirements.

**WASTE CLASS**

08 04 99

**14 TRANSPORT INFORMATION****GENERAL**

The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

**15 REGULATORY INFORMATION****LABELLING**

**FLEXANE 80L RESIN.**



Harmful

CONTAINS 4,4'-METHYLENEDI(CYCLOHEXYL ISOCYANATE)

RISK PHRASES

R20 Harmful by inhalation.  
 R42/43 May cause sensitisation by inhalation and skin contact.

SAFETY PHRASES

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.  
 S38 In case of insufficient ventilation, wear suitable respiratory equipment.  
 S45 In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).  
 P4 Contains isocyanates. See information supplied by the manufacturer.

EU DIRECTIVES

Dangerous Substance Directive 67/548/EEC.

**16 OTHER INFORMATION**

REVISION DATE 26/09/2008  
 REV. NO./REPL. SDS GENERATED 8  
 DATE 07.01.04

RISK PHRASES IN FULL

R23 Toxic by inhalation.  
 R36/37/38 Irritating to eyes, respiratory system and skin.  
 R42/43 May cause sensitisation by inhalation and skin contact.

DISCLAIMER

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