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PRINT DATE: 06/03/2000

## SAFETY DATA SHEET

REF: X0024

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

**Product name:** **FLEXANE 94L RESIN**

**Supplier:** ITW Devcon  
Shannon Industrial Estate  
Co. Clare, Ireland.

Brunel Close, Park Farm Ind. Est.,  
Wellingborough, Northants  
NN8 6QX

**Emergency telephone number:** 353(61)471299 01933 675299

**Fax No:** 353(61)471285 01933 675765

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Identification of the preparation	formulated product.			
Chemical Name	CAS-No	EEC-No	Class	Weight %
4,4'-METHYLENEDI(CYCLOHEXYLISOCYANATE)	5124-30-1	615-009-00-0	T; R23 Xi; R36/37/38 R42/43	<5

## 3. HAZARDS IDENTIFICATION

**Most important hazards:** Xn - Harmful.

**Specific hazards:** severe irritation.

## 4. FIRST AID MEASURES

**General advice:** Persons allergic to isocyanates, and particularly those suffering from asthma or other respiratory conditions, should not work with isocyanates.

**Inhalation:** Move to fresh air Consult a physician if necessary.

**Skin contact:** Wash off immediately with soap and plenty of water.

**Eye contact:** Rinse immediately with plenty of water for at least 15 minutes Consult a physician if necessary

**Ingestion:** Rinse mouth. Do not induce vomiting without medical advice.

## 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media:** foam Carbon Dioxide (CO<sub>2</sub>), dry chemical,

**Extinguishing media which must not be used for safety reasons:** high volume water jet.

**Specific hazards:** Burning produces irritant fumes.

**Special protective equipment for firefighters:** In case of fire, wear a self contained breathing apparatus, protective suit. Cool containers / tanks with water spray.

**Specific methods:** Standard procedure for chemical fires

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:** Ensure adequate ventilation. Wear self-contained breathing apparatus and protective suit

**Environmental precautions:** Do not let product enter drains.

**Methods for cleaning up:** Soak up with inert absorbent material, Shovel into a dry metal container. Dilute with water. Keep the container open

## 7. HANDLING AND STORAGE

**Handling:** Open drum carefully as content may be under pressure. In case of insufficient ventilation, wear suitable respiratory equipment.

**Storage:** Keep container tightly closed in a dry and well-ventilated place

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Chemical Name:** National occupational exposure limits (Ref: British COSHH - EH40):

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**4,4'-METHYLENEDI(CYCLOHEXYLISOCYANATE)****Engineering measures to reduce exposure**

Ensure adequate ventilation, especially in confined areas

**- Respiratory protection:**

In case of insufficient ventilation wear suitable respiratory equipment

**- Hand protection:**

impervious butyl rubber gloves. Neoprene gloves

**- Eye protection:**

Wear face-shield and protective suit for abnormal processing problems

**- Skin and body protection:**

boots. protective suit

**Hygiene measures:**

Keep away from food, drink and animal feeding stuffs. Wash hands before breaks and at the end of workday. Do not smoke.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Form:** liquid.**Colour:** clear.**Odour:** slight.**pH:** ( 50 g/l H<sub>2</sub>O)

7

**Flash point:**

&gt;233 °C

**Flammability (solid, gas):**

Not applicable

**Vapour pressure:**

&lt; 10 mm Hg ( 25 °C)

**Relative density:**

- lower 1.04 ( 25 °C)

**Water solubility**

insoluble. ( 25 °C)

**Viscosity:**

( 25 °C) 3500

**10. STABILITY AND REACTIVITY****Stability:**

Stable.

**Conditions to avoid:**

Keep away from heat and sources of ignition.

**Materials to avoid:**

water, alcohols, amines, strong bases.

**Hazardous decomposition products:**carbon oxides, nitrogen oxides (NO<sub>x</sub>).**11. TOXICOLOGICAL INFORMATION****Acute toxicity:**

LD50/oral/rat = &gt;15.9 g/kg.

LD50/dermal/rabbit = &gt;7900mg/kg.

**Sensitization:**

Persons allergic to isocyanates, and particularly those suffering from asthma or other respiratory conditions, should not work with isocyanates.

**Long term toxicity:**

Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

**12. ECOLOGICAL INFORMATION****Mobility:**

Do not let product enter drains.

**Persistence / degradability:**

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

**Bioaccumulation:**

LC50/24h/daphnia = &gt; 500 mg/l

**Other information:**

Acute fish toxicity = 1.20mg/l.

**13. DISPOSAL CONSIDERATIONS****Waste from residues / unused products:**

In accordance with local and national regulations. Solidify unexposed surplus and dispose of together with processed material as cured plastic waste.

**Contaminated packaging:**

In accordance with local and national regulations

**European waste Catalogue No:**

08 04 99

**14. TRANSPORT INFORMATION****Proper shipping name:**

Not classified as dangerous in the meaning of transport regulations: UN, ADR/RID, IMO &amp; IATA/CAO.

**15. REGULATORY INFORMATION****Classification according to European directive on classification of hazardous preparations 93/21/EEC**

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- **Contains:** Contains isocyanates. See information supplied by the manufacturer
  - **Symbol(s):**



Xn - Harmful.

Xi - Irritant

**R -phrase(s):** R42/43 - May cause sensitization by inhalation and skin contact. Irritating to eyes, respiratory system and skin

**S -phrase(s):** 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 .. soapy 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 the label where possible). S 1/2 - Keep locked-up and out of reach of children..

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**16. OTHER INFORMATION**

**Recommended use:** Adhesives.

**Recommended restrictions:**

When used in a mixture, read the labels and safety data sheets of all components.

**Revision date:** 01/03/2000.

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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

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**SAFETY DATA SHEET****1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING**

**Product name:** **FLEXANE 80/94L HARDENER**

**Supplier:** ITW Devcon  
Shannon Industrial Estate  
Co. Clare, Ireland.

Brunel Close, Park Farm Ind.  
Est.,  
Wellingborough, Northants  
NN8 6QX

**Emergency telephone number:** 353(61)471299 01933 675299

**Fax No:** 353(61)471285 01933 675765

**2. COMPOSITION/INFORMATION ON INGREDIENTS****Identification of the preparation**

Chemical Name	CAS-No	EEC-No	Class	Weight %
4,4'-DIAMINODIPHENYLMETHANE	101-77-9	612-051-00-1	Carc. Cat.2; R45 Xn; R20/21/22-48/20/21 R43	10-40

**3. HAZARDS IDENTIFICATION**

**Most important hazards:** May cause cancer

**Specific hazards:** May cause sensitization by inhalation and skin contact

**4. FIRST AID MEASURES**

**General advice:** Show this safety data sheet to the doctor in attendance

**Inhalation:** Move to fresh air, Consult a physician if necessary

**Skin contact:** Wash off immediately with soap and plenty of water

**Eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**Ingestion:** Do not induce vomiting without medical advice

**5. FIRE-FIGHTING MEASURES**

**Suitable extinguishing media:** foam, dry powder, Carbon Dioxide (CO<sub>2</sub>)

**Specific hazards:** Burning produces irritant fumes

**Special protective equipment for firefighters:** In case of fire, wear a self contained breathing apparatus, protective suit

**Specific methods:** Standard procedure for chemical fires

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions:** Avoid contact with skin and eyes, Inhalation

**Environmental precautions:** Do not let product enter drains

**Methods for cleaning up:** Soak up with inert absorbent material, Shovel into a dry metal container

**7. HANDLING AND STORAGE**

**Handling:** Open drum carefully as content may be under pressure. Use only in well-ventilated areas.

**Storage:** Keep containers tightly closed in a cool, well-ventilated place

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Chemical Name:** **4,4'-DIAMINODIPHENYLMETHANE**

**National occupational exposure limits** (Ref: British COSHH - EH40): 0.08 mg/m<sup>-3</sup>

**Engineering measures to reduce exposure:** Ensure adequate ventilation, especially in confined areas

- **Respiratory protection:** In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit
- **Hand protection:** impervious butyl rubber gloves
- **Eye protection:** face-shield,

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HARDENER**

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- Skin and body protection: protective suit , Rubber or plastic boots  
Hygiene measures: Keep away from food, drink and animal feeding stuffs. Do not smoke.  
General industrial hygiene practice

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Form: liquid. Colour: black. Odour: slight.  
pH: ( 50 g/l H<sub>2</sub>O) 8.5  
Boiling point/range: >200 °C  
Flash point: >177 °C  
Melting point/range: n/d °C  
Flammability (solid, gas): Not applicable  
Explosive properties: Not applicable.  
Vapour pressure: <1  
Relative density: - lower 1.08 ( 20 °C)  
( 25 °C)  
Viscosity: ( 25 °C) 1000

**10. STABILITY AND REACTIVITY**

Stability: No decomposition if stored and applied as directed.  
Conditions to avoid: Keep away from heat and sources of ignition.  
Materials to avoid: oxidizing agents, acids.  
Hazardous decomposition products: nitrogen oxides (NO<sub>x</sub>), Carbon monoxide.

**11. TOXICOLOGICAL INFORMATION**

Acute toxicity: irritating.  
Local effects: The product causes irritation of eyes, skin and mucous membranes.  
Repeated or prolonged exposure: Prolonged exposure may cause chronic effects

**12. ECOLOGICAL INFORMATION**

Mobility: Do not contaminate water.  
Other information: formulated product - not applicable

**13. DISPOSAL CONSIDERATIONS**

Waste from residues / unused products: Solidify unexposed surplus and dispose of together with processed material as cured plastic waste - In accordance with local and national regulations  
Contaminated packaging: In accordance with local and national regulations  
European waste Catalogue No: 09 04 99

**14. TRANSPORT INFORMATION**

Proper shipping name: Toxic Liquid n.o.s (4,4'-Diaminodiphenylmethane).  
UN-No: 2810 Marine pollutant: Marine pollutant  
ADR/RID Class: 6.1 Item: 25 (c)  
IMO Class: 6.1 H/UN No: 2810  
EmS: 6 1-00 IMDG Page: 6270-1  
MFAQ: 4.2  
Proper shipping name: Toxic Liquid n.o.s (4,4'-Diaminodiphenylmethane).  
ICAO Class: 6.1 UN/ID No: 2810  
Proper shipping name: Toxic Liquid n.o.s (4,4'-Diaminodiphenylmethane).

**15. REGULATORY INFORMATION**

Classification according to European directive on classification of hazardous preparations 93/21/EEC

- Contains: 3-4% 4,4'-DIAMINODIPHENYLMETHANE

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- Symbol(s):



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R -phrase(s): R45 - May cause cancer.. R42/43 - May cause sensitization by inhalation and skin contact

S -phrase(s): S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S53 - Avoid exposure - obtain special instructions before use.

**16. OTHER INFORMATION**

Recommended use: Adhesives.

**Recommended restrictions:**

When used in a mixture, read the labels and safety data sheets of all components.

Revision date: 01/03/2000.

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