

ISSUE DATE: 21 September, 2007



## MATERIAL SAFETY DATA SHEET

## FLEXANE 80 PUTTY RESIN

## 1 IDENTIFICATION OF MATERIAL AND SUPPLIER

PRODUCT NAME:	DEVCON FLEXANE 80 PUTTY RESIN	
PRODUCT NO.	D15820, D15830 (Resin component of a two part polyurethane system)	
SUPPLIER	ITW POLYMERS & FLUIDS 100 HASSALL ST WETHERILL PARK NEW SOUTH WALES <b>AUSTRALIA</b> T: 02 9757 8800 F: 02 9757 3855 EMERGENCY PHONE: T: 02 9757 8800	ITW POLYMERS & FLUIDS (NZ) UNIT 2 / 38 TRUEGOOD DRIVE, EAST TAMAKI, 2013 AUCKLAND <b>NEW ZELAND</b> T: 09 272 1945 F: 09 273 6489 T: 09 272 1945

## 2 HAZARDS IDENTIFICATION

**HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS**

(According to the criteria of the NOHSC and the ADG-6 code)

## SIGNAL WORD(S)

Xn; Harmful.

## RISK PHRASES

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

## 3 COMPOSITION / INFORMATION ON INGREDIENTS

Name	CAS-No.	Content	Classification
4,4'-METHYLENEDI(CYCLOHEXYL ISOCYANATE)	225-863-2	0 - < 10 %	T; R23 R42/43. Xi; R36/37/38

## 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.

## DEVCON FLEXANE 80 PUTTY RESIN MSDS

### INGESTION

Rinse mouth thoroughly. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit does not 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 clean water while lifting the eye lids. Continue to rinse for at least 15 minutes and get medical attention.

## 5 FIRE FIGHTING MEASURES

### SUITABLE EXTINGUISHING MEDIA

Extinguished using: Alcohol resistant foam. Carbon Dioxide (CO<sub>2</sub>). Dry Chemicals.

### SPECIAL FIRE FIGHTING PROCEDURES

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

### PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

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

### SPECIFIC HAZARDS

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

## 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, watercourses or on 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 with non-combustible, absorbent material. Transfer to a container for disposal. Containers with collected spillage must be properly labeled with correct contents and hazard symbol.

## 7 HANDLING AND STORAGE

### USAGE PRECAUTIONS

Handle 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 cool, dry well-ventilated place.

## 8 EXPOSURE CONTROL / PERSONAL PROTECTION

No exposure data available for product.

Exposure standards for ingredients:

Name	TWA (LT) mg/m <sup>3</sup>	TWA (LT) ppm	STEL (ST) mg/m <sup>3</sup>	STEL (ST) ppm	Source
4,4'-METHYLENEDI(CYCLOHEXYLISOCYANATE)	0.02		0.07		NOHSC

### PROTECTIVE EQUIPMENT



### PROCESS CONDITIONS

Provide eyewash, quick drench.

## DEVCON FLEXANE 80 PUTTY RESIN MSDS

### ENGINEERING MEASURES

Provide adequate general and local exhaust ventilation.

### RESPIRATORY EQUIPMENT

Not usually required in well ventilated areas.

Select and use respirators in accordance with AS/NZS 1715/1716.

In poorly ventilated areas use Type A organic vapour/gas filter with half face piece.

When sanding/grinding cured product the use of a P1 dust mask (disposable) or with replaceable filters is recommended.

Filter capacity and respirator type depends on exposure levels and type of contaminant. If entering spaces where the airborne concentration of a contaminant is unknown then the use of a Self-contained breathing apparatus (SCBA) with positive pressure air supply complying with AS/NZS 1715 / 1716, or any other acceptable International Standard is recommended.

### HAND PROTECTION

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

### EYE PROTECTION

Wear approved chemical safety goggles or tight fitting safety glasses where eye exposure is reasonably 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 should be worn.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Liquid		
COLOUR	Clear		
ODOUR	Slight Odour.		
BOILING POINT (°C)	> 149°C	VISCOSITY	3.2 – 8.5 Pa.s
RELATIVE DENSITY	1.04 @ 20 °C	EVAPORATION RATE	>1 (butyl acetate =1)
pH-VALUE, CONC. SOLUTION	7 @ 20 °C	FLASH POINT (°C)	> 234°C

## 10 STABILITY & 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 (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

### TOXICITY

Not available.

### 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.

## 12 ECOLOGICAL INFORMATION

### ECOTOXICITY

LC 50, 96 Hrs FISH mg/L                      1.2 mg/L

EC50, 48 Hrs, DAPHNIA, mg/L              >500mg/L

### MOBILITY

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

### DEGRADABILITY

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

## 13 DISPOSAL INFORMATION

### DISPOSAL METHODS

Mix resin and curing agent components completely to create a solid that can be disposed as general waste.

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

## 14 TRANSPORT INFORMATION

Not classified as Dangerous Goods by (ADG-6) (Australia)

Not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID)

## 15 REGULATORY INFORMATION

POISONS SCHEDULE:        S5 (SUSDP)

## 6 OTHER INFORMATION

ISSUE DATE            21 September, 2007

CONTACT POINT:            Technical Manager                      Phone: (02) 9757 8800            (Australia)

### DISCLAIMER

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**MATERIAL SAFETY DATA SHEET**  
**FLEXANE 80 PUTTY CURING AGENT**

**1 IDENTIFICATION OF MATERIAL AND SUPPLIER**

PRODUCT NAME:	DEVCON FLEXANE 80 PUTTY CURING AGENT	
PRODUCT NO:	D15820, D15830 (Curing Agent component of a two part polyurethane system)	
SUPPLIE:	ITW POLYMERS & FLUIDS	ITW POLYMERS & FLUIDS (NZ)
	100 HASSALL ST	UNIT 2 / 38 TRUEGOOD DRIVE,
	WETHERILL PARK	EAST TAMAKI, 2013
	NEW SOUTH WALES	AUCKLAND
	<b>AUSTRALIA</b>	<b>NEW ZELAND</b>
	T: 02 9757 8800	T: 09 272 1945
	F: 02 9757 3855	F: 09 273 6489
EMERGENCY PHONE:	T: 02 9757 8800	T: 09 272 1945

**2 HAZARDS IDENTIFICATION**

**HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS**

(According to the criteria of the NOHSC and the ADG-6 code)

SIGNAL WORD(S)

Xn; Harmful. Xi; Irritant; N; Harmful to the environment

RISK PHRASES

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

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.

**3 COMPOSITION / INFORMATION ON INGREDIENTS**

Name	CAS-No.	Content	Classification
DIETHYLMETHYLBENZINEDIAMINE	68479-98-1	30 - < 60 %	Xn; R21/22, R48/22 Xi;R36 N;R50/53
PROPYLENE GLYCOL DIBENZOATE	14228-73-0	0 - < 10 %	N; R51/53

**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 clean 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

#### SUITABLE EXTINGUISHING MEDIA

Extinguished using: Alcohol resistant foam. Carbon Dioxide (CO<sub>2</sub>). Dry Chemicals.

#### SPECIAL FIRE FIGHTING PROCEDURES

Avoid breathing fire vapours. Keep upwind 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.

#### PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

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

#### SPECIFIC HAZARDS

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

### 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, watercourses or on 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 with non-combustible, absorbent material. Transfer to a container for disposal. Containers with collected spillage must be properly labeled with correct contents and hazard symbol.

### 7 HANDLING AND STORAGE

#### USAGE PRECAUTIONS

Avoid contact with skin and eyes. Handle 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 cool, dry well-ventilated place. Keep away from heat, sparks and open flame.

### 8 EXPOSURE CONTROL / PERSONAL PROTECTION

No exposure data available for product or ingredients.

#### PROTECTIVE EQUIPMENT



#### PROCESS CONDITIONS

Provide eyewash, quick drench.

#### ENGINEERING MEASURES

Provide adequate general and local exhaust ventilation.

#### RESPIRATORY EQUIPMENT

Not usually required in well ventilated areas.

Select and use respirators in accordance with AS/NZS 1715/1716.

In poorly ventilated areas use Type A organic vapour/gas filter with half face piece.

## DEVCON FLEXANE 80 PUTTY CURING AGENT MSDS

When sanding/grinding cured product the use of a P1 dust mask (disposable) or with replaceable filters is recommended.

Filter capacity and respirator type depends on exposure levels and type of contaminant. If entering spaces where the airborne concentration of a contaminant is unknown then the use of a Self-contained breathing apparatus (SCBA) with positive pressure air supply complying with AS/NZS 1715 / 1716, or any other acceptable International Standard is recommended.

### HAND PROTECTION

Use protective gloves made of: Neoprene or Nitrile.

### EYE PROTECTION

Wear approved chemical safety goggles or tight fitting safety glasses where eye exposure is reasonably 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. Change work clothing daily before leaving work place.

### SKIN PROTECTION

Protection suit should be worn.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Liquid		
COLOUR	Black		
ODOUR	Slight Odour.		
BOILING POINT (°C)	> 232	VISCOSITY	160 – 320 mPas
RELATIVE DENSITY	1.08 @ 20 °C	EVAPORATION RATE	>1 (butyl acetate =1)
pH-VALUE, CONC. SOLUTION	8.5 @ 20 °C	FLASH POINT (°C)	> 177°C

## 10 STABILITY & 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: Strong acids.Strong oxidising agents.

### HAZARDOUS DECOMPOSITION PRODUCTS

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

## 11 TOXICOLOGICAL INFORMATION

Toxic Dose 1 - LD 50 >500 mg/kg (oral rat)

### INGREDIENT DATA

Unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances

#### DIETHYLTOLUENEDIAMINE:

#### TOXICITY

Oral (rat) LD50: 470-540 mg/kg

Dermal (rabbit) LD50: >700 mg/kg

Inhalation (rats) LD50: >2.45 mg/l

#### IRRITATION

Skin (rabbit): slight

Eye (rabbit): moderate-SEVERE

[Manufacturer]

### INHALATION

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

### INGESTION

Harmful if swallowed.

### SKIN CONTACT

DEVCON FLEXANE 80 PUTTY CURING AGENT MSDS

Irritating to skin. Harmful in contact with skin.

EYE CONTACT

Irritating to eyes.

**12 ECOLOGICAL INFORMATION**

ECOTOXICITY

Avoid release 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.

MOBILITY

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

DEGRADABILITY

This product is not readily biodegradable.

**13 DISPOSAL INFORMATION**

DISPOSAL METHODS

Mix resin and curing agent components completely to create a solid that can be disposed as general waste.

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

**14 TRANSPORT INFORMATION**

Not classified as Dangerous Goods by (ADG-6) (Australia)

Not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID)

**15 REGULATORY INFORMATION**

POISONS SCHEDULE: S5 (SUSDP)

**6 OTHER INFORMATION**

ISSUE DATE: 21 September, 2007

CONTACT POINT: Technical Manager Phone: (02) 9757 8800 (Australia)

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ISSUE DATE: 21 September, 2007



## MATERIAL SAFETY DATA SHEET

## FLEXANE 80 PUTTY RESIN

## 1 IDENTIFICATION OF MATERIAL AND SUPPLIER

PRODUCT NAME:	DEVCON FLEXANE 80 PUTTY RESIN	
PRODUCT NO.	D15820, D15830 (Resin component of a two part polyurethane system)	
SUPPLIER	ITW POLYMERS & FLUIDS 100 HASSALL ST WETHERILL PARK NEW SOUTH WALES <b>AUSTRALIA</b> T: 02 9757 8800 F: 02 9757 3855	ITW POLYMERS & FLUIDS (NZ) UNIT 2 / 38 TRUEGOOD DRIVE, EAST TAMAKI, 2013 AUCKLAND <b>NEW ZELAND</b> T: 09 272 1945 F: 09 273 6489
EMERGENCY PHONE:	T: 02 9757 8800	T: 09 272 1945

## 2 HAZARDS IDENTIFICATION

**HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS**

(According to the criteria of the NOHSC and the ADG-6 code)

## SIGNAL WORD(S)

Xn; Harmful.

## RISK PHRASES

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

## 3 COMPOSITION / INFORMATION ON INGREDIENTS

Name	CAS-No.	Content	Classification
4,4'-METHYLENEDI(CYCLOHEXYL ISOCYANATE)	225-863-2	0 - < 10 %	T; R23 R42/43. Xi; R36/37/38

## 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.

## DEVCON FLEXANE 80 PUTTY RESIN MSDS

### INGESTION

Rinse mouth thoroughly. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit does not 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 clean water while lifting the eye lids. Continue to rinse for at least 15 minutes and get medical attention.

## 5 FIRE FIGHTING MEASURES

### SUITABLE EXTINGUISHING MEDIA

Extinguished using: Alcohol resistant foam. Carbon Dioxide (CO<sub>2</sub>). Dry Chemicals.

### SPECIAL FIRE FIGHTING PROCEDURES

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

### PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

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

### SPECIFIC HAZARDS

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

## 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, watercourses or on 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 with non-combustible, absorbent material. Transfer to a container for disposal. Containers with collected spillage must be properly labeled with correct contents and hazard symbol.

## 7 HANDLING AND STORAGE

### USAGE PRECAUTIONS

Handle 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 cool, dry well-ventilated place.

## 8 EXPOSURE CONTROL / PERSONAL PROTECTION

No exposure data available for product.

Exposure standards for ingredients:

Name	TWA (LT) mg/m <sup>3</sup>	TWA (LT) ppm	STEL (ST) mg/m <sup>3</sup>	STEL (ST) ppm	Source
4,4'-METHYLENEDI(CYCLOHEXYLISOCYANATE)	0.02		0.07		NOHSC

### PROTECTIVE EQUIPMENT



### PROCESS CONDITIONS

Provide eyewash, quick drench.

## DEVCON FLEXANE 80 PUTTY RESIN MSDS

### ENGINEERING MEASURES

Provide adequate general and local exhaust ventilation.

### RESPIRATORY EQUIPMENT

Not usually required in well ventilated areas.

Select and use respirators in accordance with AS/NZS 1715/1716.

In poorly ventilated areas use Type A organic vapour/gas filter with half face piece.

When sanding/grinding cured product the use of a P1 dust mask (disposable) or with replaceable filters is recommended.

Filter capacity and respirator type depends on exposure levels and type of contaminant. If entering spaces where the airborne concentration of a contaminant is unknown then the use of a Self-contained breathing apparatus (SCBA) with positive pressure air supply complying with AS/NZS 1715 / 1716, or any other acceptable International Standard is recommended.

### HAND PROTECTION

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

### EYE PROTECTION

Wear approved chemical safety goggles or tight fitting safety glasses where eye exposure is reasonably 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 should be worn.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Liquid		
COLOUR	Clear		
ODOUR	Slight Odour.		
BOILING POINT (°C)	> 149°C	VISCOSITY	3.2 – 8.5 Pa.s
RELATIVE DENSITY	1.04 @ 20 °C	EVAPORATION RATE	>1 (butyl acetate =1)
pH-VALUE, CONC. SOLUTION	7 @ 20 °C	FLASH POINT (°C)	> 234°C

## 10 STABILITY & 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 (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

### TOXICITY

Not available.

### 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.

## 12 ECOLOGICAL INFORMATION

### ECOTOXICITY

LC 50, 96 Hrs FISH mg/L                    1.2 mg/L  
EC50, 48 Hrs, DAPHNIA, mg/L            >500mg/L

### MOBILITY

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

### DEGRADABILITY

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

## 13 DISPOSAL INFORMATION

### DISPOSAL METHODS

Mix resin and curing agent components completely to create a solid that can be disposed as general waste.

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

## 14 TRANSPORT INFORMATION

Not classified as Dangerous Goods by (ADG-6) (Australia)

Not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID)

## 15 REGULATORY INFORMATION

POISONS SCHEDULE:        S5 (SUSDP)

## 6 OTHER INFORMATION

ISSUE DATE            21 September, 2007

CONTACT POINT:            Technical Manager                    Phone: (02) 9757 8800            (Australia)

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## DEVCON FLEXANE 80 PUTTY CURING AGENT

Chemwatch Material Safety Data Sheet

Issue Date: 14-Feb-2008

XC9317SC

CHEMWATCH 21589

Version No:2.0

CD 2008/2 Page 1 of 5

### Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

#### PRODUCT NAME

DEVCON FLEXANE 80 PUTTY CURING AGENT

#### SYNONYMS

"PART: D15820, D15830"

#### PROPER SHIPPING NAME

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(diethyltoluenediamine)

#### PRODUCT USE

Curing agent component of two part polyurethane system. NOTE: The product is unregulated for Road and Rail transport when transported in (a) packagings; (b) IBCs; or (c) any other receptacle not exceeding 500 kg(L).

#### SUPPLIER

Company: ITW POLYMERS & FLUIDS

Address:

100 Hassall Street

Wetherill Park

NSW, 2164

AUS

Telephone: +61 2 9757 8800

Emergency Tel: +61 2 9757 8800

Fax: +61 2 9757 3855

### Section 2 - HAZARDS IDENTIFICATION

#### STATEMENT OF HAZARDOUS NATURE

HAZARDOUS SUBSTANCE. DANGEROUS GOODS. According to the Criteria of NOHSC, and the ADG Code.  
COMBUSTIBLE LIQUID, regulated under AS1940 for Bulk Storage purposes only.

#### POISONS SCHEDULE

S5

#### RISK

Risk Codes	Risk Phrases
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.

#### SAFETY

Safety Codes	Safety Phrases
S36	Wear suitable protective clothing.
S401	To clean the floor and all objects contaminated by this material use water and detergent.
S35	This material and its container must be disposed of in a safe way.
S13	Keep away from food drink and animal feeding stuffs.
S46	If swallowed IMMEDIATELY contact Doctor or Poisons Information Centre. (show this container or label).
S57	Use appropriate container to avoid environmental contamination.
S61	Avoid release to the environment. Refer to special instructions/Safety data sheets.
S60	This material and its container must be disposed of as hazardous waste.

continued...

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## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
diethyltoluenediamine	68479-98-1	30-50
carbon black	1333-86-4	1-5
ingredients nonhazardous		balance

## Section 4 - FIRST AID MEASURES

### SWALLOWED

- For advice, contact a Poisons Information Centre or a doctor at once.
- Urgent hospital treatment is likely to be needed.

### EYE

If this product comes in contact with the eyes:

- Wash out immediately with fresh running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.

### SKIN

If skin contact occurs:

- Immediately remove all contaminated clothing, including footwear.
- Flush skin and hair with running water (and soap if available).

### INHALED

- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.

### NOTES TO PHYSICIAN

Treat symptomatically.

## Section 5 - FIRE FIGHTING MEASURES

### EXTINGUISHING MEDIA

- Foam.
- Dry chemical powder.

### FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- Wear full body protective clothing with breathing apparatus.

### FIRE/EXPLOSION HAZARD

- Combustible.
- Slight fire hazard when exposed to heat or flame.

Combustion products include: carbon dioxide (CO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), other pyrolysis products typical of burning organic material.

### FIRE INCOMPATIBILITY

Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc.

### HAZCHEM: 2X

### Personal Protective Equipment

Gas tight chemical resistant suit.

## Section 6 - ACCIDENTAL RELEASE MEASURES

### EMERGENCY PROCEDURES

#### MINOR SPILLS

Environmental hazard - contain spillage.

- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.

#### MAJOR SPILLS

Environmental hazard - contain spillage.

Moderate hazard.

- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.

continued...

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Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

## Section 7 - HANDLING AND STORAGE

### PROCEDURE FOR HANDLING

DO NOT allow clothing wet with material to stay in contact with skin.

- DO NOT use aluminium, galvanised or tin-plated containers.
- DO NOT USE brass or copper containers / stirrers.
- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.

### SUITABLE CONTAINER

- Metal can or drum
- Packaging as recommended by manufacturer.

### STORAGE INCOMPATIBILITY

- Avoid reaction with oxidising agents.

### STORAGE REQUIREMENTS

- Store in original containers.
- Keep containers securely sealed.

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

### EXPOSURE CONTROLS

Source	Material	TWA mg/m <sup>3</sup>
Australia Exposure Standards	carbon black (Carbon black)	3

The following materials had no OELs on our records

- diethyltoluenediamine:

CAS:68479- 98- 1

### PERSONAL PROTECTION

#### RESPIRATOR

Type AK-P Filter of sufficient capacity

#### EYE

- Safety glasses with side shields.
- Chemical goggles.

#### HANDS/FEET

Wear chemical protective gloves, eg. PVC.

NOTE: The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.

#### OTHER

- Overalls.
- P.V.C. apron.

### ENGINEERING CONTROLS

General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in specific circumstances.

Refer also to protective measures for the other component used with the product. Read both MSDS before using; store and attach MSDS together.

## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

### APPEARANCE

Black liquid with mild ammonia-like odour; does not mix with water.

### PHYSICAL PROPERTIES

Liquid.

Does not mix with water.

Sinks in water.

continued...

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## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Molecular Weight: Not applicable  
Melting Range (°C): Not available  
Solubility in water (g/L): Immiscible  
pH (1% solution): 7- 8 (5%)  
Volatile Component (%vol): 0  
Relative Vapour Density (air=1): > 1  
Lower Explosive Limit (%): Not available  
Autoignition Temp (°C): Not available  
State: Liquid

Boiling Range (°C): >232  
Specific Gravity (water=1): 1.08  
pH (as supplied): Not available  
Vapour Pressure (kPa): < 0.13 @ 24 C  
Evaporation Rate: << 1 BuAC = 1  
Flash Point (°C): >135 (TCC)  
Upper Explosive Limit (%): Not available  
Decomposition Temp (°C): Not available  
Viscosity: Not Available

## Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

### CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
- Product is considered stable.

## Section 11 - TOXICOLOGICAL INFORMATION

### POTENTIAL HEALTH EFFECTS

#### ACUTE HEALTH EFFECTS

Irritating to eyes.  
Harmful in contact with skin and if swallowed.

#### CHRONIC HEALTH EFFECTS

Harmful: danger of serious damage to health by prolonged exposure if swallowed.

### TOXICITY AND IRRITATION

Not available. Refer to individual constituents.

#### MATERIAL

#### CARCINOGEN

#### REPROTOXIN

#### SENSITISER

#### SKIN

carbon black

IARC:2B

#### CARCINOGEN

IARC: International Agency for Research on Cancer (IARC) Carcinogens: carbon black Category: WARNING: This substance has been classified by the IARC as Group 2B: Possibly Carcinogenic to Humans.

## Section 12 - ECOLOGICAL INFORMATION

### Marine Pollutant:Not Determined

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

This material and its container must be disposed of as hazardous waste.

Avoid release to the environment.

Refer to special instructions/safety data sheets.

## Section 13 - DISPOSAL CONSIDERATIONS

- Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Management Authority for disposal.

## Section 14 - TRANSPORTATION INFORMATION

Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082

are not subject to this Code when transported by road or rail in;

(a) packagings;

(b) IBCs; or

(c) any other receptacle not exceeding 500 kg(L).

- Australian Special Provisions (SP AU01) - ADG Code 7th Ed.

Labels Required: MISCELLANEOUS

HAZCHEM: 2X

#### UNDG:

Dangerous Goods

9

Subrisk:

None

Class:

UN Number:

3082

Packing Group:

III

Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(diethyltoluenediamine)

continued...



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## Section 14 - TRANSPORTATION INFORMATION

### Air Transport IATA:

ICAO/IATA Class:	9	ICAO/IATA Subrisk:	None
UN/ID Number:	3082	Packing Group:	III
Special provisions:	A97		

Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,  
N.O.S. \*

### Maritime Transport IMDG:

IMDG Class:	9	IMDG Subrisk:	None
UN Number:	3082	Packing Group:	III
EMS Number:	F- A, S- F	Special provisions:	274 909 944
Limited Quantities:	5 L	Marine Pollutant:	Not Determined

Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,  
N.O.S.

## Section 15 - REGULATORY INFORMATION

### POISONS SCHEDULE: S5

### REGULATIONS

Devcon Flexane 80 Putty Curing Agent (CAS: None):

No regulations applicable

diethyltoluenediamine (CAS: 68479-98-1) is found on the following regulatory lists;

- Australia Hazardous Substances
- Australia Inventory of Chemical Substances (AICS)
- Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Appendix E (Part 2)
- OECD Representative List of High Production Volume (HPV) Chemicals

carbon black (CAS: 1333-86-4) is found on the following regulatory lists;

- Australia Dangerous Goods Code (ADG Code) - Goods Too Dangerous To Be Transported
- Australia Exposure Standards
- Australia Hazardous Substances
- Australia High Volume Industrial Chemical List (HVICL)
- Australia Inventory of Chemical Substances (AICS)
- International Agency for Research on Cancer (IARC) Carcinogens
- International Council of Chemical Associations (ICCA) - High Production Volume List
- OECD Representative List of High Production Volume (HPV) Chemicals

## Section 16 - OTHER INFORMATION

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:

[www.chemwatch.net/references](http://www.chemwatch.net/references).

The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

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# DEVCON FLEXANE 80 PUTTY RESIN

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## Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

### PRODUCT NAME

DEVCON FLEXANE 80 PUTTY RESIN

### SYNONYMS

"PART: D15820, D15830"

### PRODUCT USE

Base or Part A of a 2 pack. urethane system. Requires that the two parts be mixed by hand or mixer before use, in accordance with manufacturers directions. Mix only as much as is required. CONTAINS free organic isocyanate. Mixing and application requires special precautions and use of personal protective gear [APMF]. Persons with a history of asthma or other respiratory problems or are known to be sensitised, should not be engaged in any work involving the handling of isocyanates. [CCTRADE- Bayer, APMF]. The use of a quantity of material in an unventilated or confined space may result in increased exposure and an irritating atmosphere developing. Before starting consider control of exposure by mechanical ventilation.

### SUPPLIER

Company: ITW POLYMERS & FLUIDS

Address:

100 Hassall Street

Wetherill Park

NSW, 2164

AUS

Telephone: +61 2 9757 8800

Emergency Tel: +61 2 9757 8800

Fax: +61 2 9757 3855

## Section 2 - HAZARDS IDENTIFICATION

### STATEMENT OF HAZARDOUS NATURE

HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS. According to the Criteria of NOHSC, and the ADG Code.

### POISONS SCHEDULE

S6

### RISK

Risk Codes	Risk Phrases
R20	Harmful by inhalation.
R36/38	Irritating to eyes and skin.
R42	May cause SENSITISATION by inhalation.
R43	May cause SENSITISATION by skin contact.

### SAFETY

Safety Codes	Safety Phrases
S36	Wear suitable protective clothing.
S401	To clean the floor and all objects contaminated by this material use water and detergent.
S13	Keep away from food drink and animal feeding stuffs.
S46	If swallowed IMMEDIATELY contact Doctor or Poisons Information Centre. (show this container or label).

## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
DMDI/ polypropylene glycol trimethylol ether copolymer	53170-03-9	60-90
methylene bis(4- cyclohexylisocyanate)	5124-30-1	10-15
4, 4' - diphenylmethane diisocyanate (MDI)	101-68-8	1-10
MDI oligomer	9016-87-9	1-5

continued...

# DEVCON FLEXANE 80 PUTTY RESIN

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## Section 4 - FIRST AID MEASURES

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### SWALLOWED

- For advice, contact a Poisons Information Centre or a doctor at once.
- Urgent hospital treatment is likely to be needed.

### EYE

If this product comes in contact with the eyes:

- Wash out immediately with fresh running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.

### SKIN

If skin contact occurs:

- Immediately remove all contaminated clothing, including footwear.
- Flush skin and hair with running water (and soap if available).

### INHALED

- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.

### NOTES TO PHYSICIAN

For sub-chronic and chronic exposures to isocyanates:

· This material may be a potent pulmonary sensitiser which causes bronchospasm even in patients without prior airway hyperreactivity.

· Clinical symptoms of exposure involve mucosal irritation of respiratory and gastrointestinal tracts.

For poisons (where specific treatment regime is absent):

-----  
**BASIC TREATMENT**  
-----

- Establish a patent airway with suction where necessary.
- Watch for signs of respiratory insufficiency and assist ventilation as necessary.

---

## Section 5 - FIRE FIGHTING MEASURES

---

### EXTINGUISHING MEDIA

- Foam.
- Dry chemical powder.

### FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- Wear full body protective clothing with breathing apparatus.

### FIRE/EXPLOSION HAZARD

- Combustible.
- Moderate fire hazard when exposed to heat or flame.
- Small quantities of water in contact with hot liquid may react violently with generation of a large volume of rapidly expanding hot sticky semi-solid foam.
- Presents additional hazard when fire fighting in a confined space.

Combustion products include: carbon dioxide (CO<sub>2</sub>), isocyanates, and minor amounts of, hydrogen cyanide, nitrogen oxides (NO<sub>x</sub>), other pyrolysis products typical of burning organic material.

May emit poisonous fumes.

May emit corrosive fumes.

- Flooding quantities of water only.

### FIRE INCOMPATIBILITY

Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc.

### HAZCHEM: None

### Personal Protective Equipment

Gas tight chemical resistant suit.

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## Section 6 - ACCIDENTAL RELEASE MEASURES

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### EMERGENCY PROCEDURES

#### MINOR SPILLS

- Remove all ignition sources.
- Clean up all spills immediately.

continued...

# DEVCON FLEXANE 80 PUTTY RESIN

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## Section 6 - ACCIDENTAL RELEASE MEASURES

### MAJOR SPILLS

Moderate hazard.

- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

## Section 7 - HANDLING AND STORAGE

### PROCEDURE FOR HANDLING

DO NOT allow clothing wet with material to stay in contact with skin.

Contains low boiling substance:

Storage in sealed containers may result in pressure buildup causing violent rupture of containers not rated appropriately.

- Check for bulging containers.
- Vent periodically.
- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.

### SUITABLE CONTAINER

- Metal can or drum
- Packaging as recommended by manufacturer.

### STORAGE INCOMPATIBILITY

- Avoid reaction with water, alcohols and detergent solutions.
- Isocyanates and thioisocyanates are incompatible with many classes of compounds, reacting exothermically to release toxic gases. Reactions with amines, strong bases, aldehydes, alcohols, alkali metals, ketones, mercaptans, strong oxidisers, hydrides, phenols, and peroxides can cause vigorous releases of heat. Acids and bases initiate polymerisation reactions in these materials. Avoid cross contamination between the two liquid parts of product (kit). If two part products are mixed or allowed to mix in proportions other than manufacturer's recommendation, polymerisation with gelation and evolution of heat (exotherm) may occur.
- Avoid contamination with water, alkalies and detergent solutions.
- Material reacts with water and generates gas, pressurises containers with even drum rupture resulting.
- Avoid reaction with oxidising agents.

### STORAGE REQUIREMENTS

Rotate all stock to prevent ageing. Use on FIFO (First In-First Out) basis.

- Store in original containers.
- Keep containers securely sealed.

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

### EXPOSURE CONTROLS

Source	Material	TWA mg/m <sup>3</sup>	STEL mg/m <sup>3</sup>
Australia Exposure Standards	methylene bis(4-cyclohexylisocyanate)	0.02	0.07
Australia Exposure Standards	(Isocyanates, all (as- NCO)) 4, 4' - diphenylmethane diisocyanate (MDI) (Isocyanates, all (as- NCO))	0.02	0.07
Australia Exposure Standards	MDI oligomer (Isocyanates, all (as- NCO))	0.02	0.07

The following materials had no OELs on our records

- DMDI/ polypropylene glycol trimethylol ether copolymer:

CAS:53170- 03- 9

### PERSONAL PROTECTION

#### RESPIRATOR

Type A-P Filter of sufficient capacity

#### EYE

- Safety glasses with side shields.
- Chemical goggles.

#### HANDS/FEET

Wear chemical protective gloves, eg. PVC.

NOTE: The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.

continued...

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## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

### OTHER

- Overalls.
- P.V.C. apron.

### ENGINEERING CONTROLS

Spraying of material or material in admixture with other components must be carried out in conditions conforming to local state regulations. Local exhaust ventilation with full face air supplied breathing apparatus (hood or helmet type) is normally required. Refer also to protective measures for the other component used with the product. Read both MSDS before using; store and attach MSDS together.

## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

### APPEARANCE

Clear viscous liquid with a slightly musty odour; does not mix with water.

### PHYSICAL PROPERTIES

Liquid.

Does not mix with water.

Sinks in water.

Molecular Weight: Not applicable.  
Melting Range (°C): Not available.  
Solubility in water (g/L): Immiscible  
pH (1% solution): Not Available  
Volatile Component (%vol): 0  
Relative Vapour Density (air=1): 8.5 (MDI)  
Lower Explosive Limit (%): Not available.  
Autoignition Temp (°C): Not available.  
State: Liquid

Boiling Range (°C): >204  
Specific Gravity (water=1): 1.1  
pH (as supplied): Not Applicable  
Vapour Pressure (kPa): <1.333  
Evaporation Rate: <1 BuAc=1  
Flash Point (°C): 234 (PMCC)  
Upper Explosive Limit (%): Not available.  
Decomposition Temp (°C): Not Available  
Viscosity: Not Available

## Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

### CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
- Product is considered stable.

## Section 11 - TOXICOLOGICAL INFORMATION

### POTENTIAL HEALTH EFFECTS

#### ACUTE HEALTH EFFECTS

Harmful by inhalation.  
Irritating to eyes and skin.

#### CHRONIC HEALTH EFFECTS

May cause SENSITISATION by inhalation.  
May cause SENSITISATION by skin contact.

### TOXICITY AND IRRITATION

Not available. Refer to individual constituents.

MATERIAL	CARCINOGEN	REPROTOXIN	SENSITISER	SKIN
methylene bis(4-cyclohexylisocyanate)			AUOEL	
4, 4' - diphenylmethane diisocyanate (MDI)	IARC:3	ILOP	AUOEL	
MDI oligomer	IARC:3		AUOEL	

#### SENSITISER

AUOEL: Australia Exposure Standards - Sensitisers: methylene bis(4-cyclohexylisocyanate)

#### CARCINOGEN

IARC: International Agency for Research on Cancer (IARC) Carcinogens: 4,4'-diphenylmethane diisocyanate (MDI) Category: The substance is classified by IARC as Group 3: NOT classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or limited in animal testing.

#### REPROTOXIN

ILOP: France Threshold Limit Values for Occupational Exposure (VLE, VME) - Allergens: 4,4'-diphenylmethane diisocyanate (MDI)

#### SENSITISER

AUOEL: Australia Exposure Standards - Sensitisers: 4,4'-diphenylmethane diisocyanate (MDI)

#### CARCINOGEN

IARC: International Agency for Research on Cancer (IARC) Carcinogens: MDI oligomer Category: The substance is classified by

continued...

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## Section 11 - TOXICOLOGICAL INFORMATION

IARC as Group 3: NOT classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or limited in animal testing.

SENSITISER

AUOEL: Australia Exposure Standards - Sensitisers: MDI oligomer

## Section 12 - ECOLOGICAL INFORMATION

No data

## Section 13 - DISPOSAL CONSIDERATIONS

Treat isocyanate spills with sufficient amounts of isocyanate decontaminant preparation. Typically, such a preparation may consist of: sawdust: 20 parts by weight Kieselguhr 40 parts by weight plus a mixture of ammonia (s.g.

- Containers may still present a chemical hazard/ danger when empty.
- Return to supplier for reuse/ recycling if possible.

## Section 14 - TRANSPORTATION INFORMATION

HAZCHEM: None

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: UN, IATA, IMDG

## Section 15 - REGULATORY INFORMATION

POISONS SCHEDULE: S6

### REGULATIONS

Devcon Flexane 80 Putty Resin (CAS: None):

No regulations applicable

methylene bis(4-cyclohexylisocyanate) (CAS: 5124-30-1) is found on the following regulatory lists;

- Australia - New South Wales Hazardous Substances Requiring Health Surveillance
- Australia - Tasmania Hazardous Substances Requiring Health Surveillance
- Australia - Western Australia Hazardous Substances Requiring Health Surveillance
- Australia Exposure Standards
- Australia Hazardous Substances
- Australia Hazardous Substances Requiring Health Surveillance
- Australia Inventory of Chemical Substances (AICS)
- Australia Occupational Health and Safety (Commonwealth Employment) (National Standards) Regulations 1994 - Hazardous Substances Requiring Health Surveillance
- Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Appendix E (Part 2)
- Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Appendix F (Part 3)
- Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 6
- International Council of Chemical Associations (ICCA) - High Production Volume List
- OECD Representative List of High Production Volume (HPV) Chemicals

4,4'-diphenylmethane diisocyanate (MDI) (CAS: 101-68-8) is found on the following regulatory lists;

- Australia - New South Wales Hazardous Substances Requiring Health Surveillance
- Australia - Queensland Hazardous Materials and Prescribed Quantities for Major Hazard Facilities
- Australia - Tasmania Hazardous Substances Requiring Health Surveillance
- Australia - Western Australia Hazardous Substances Requiring Health Surveillance
- Australia Exposure Standards
- Australia Hazardous Substances
- Australia Hazardous Substances Requiring Health Surveillance
- Australia High Volume Industrial Chemical List (HVICL)
- Australia Inventory of Chemical Substances (AICS)
- Australia National Pollutant Inventory
- Australia Occupational Health and Safety (Commonwealth Employment) (National Standards) Regulations 1994 - Hazardous Substances Requiring Health Surveillance
- Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Appendix E (Part 2)
- Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Appendix F (Part 3)
- Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 6
- GESAMP/EHS Composite List of Hazard Profiles - Hazard evaluation of substances transported by ships
- IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk
- International Agency for Research on Cancer (IARC) Carcinogens
- International Air Transport Association (IATA) Dangerous Goods Regulations
- OECD Representative List of High Production Volume (HPV) Chemicals

4,4'-diphenylmethane diisocyanate (MDI) (CAS: 26447-40-5) is found on the following regulatory lists;

- Australia - New South Wales Hazardous Substances Requiring Health Surveillance
- Australia - Tasmania Hazardous Substances Requiring Health Surveillance
- Australia - Western Australia Hazardous Substances Requiring Health Surveillance
- Australia Exposure Standards

continued...

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Section 15 - REGULATORY INFORMATION

Australia Hazardous Substances  
Australia Hazardous Substances Requiring Health Surveillance  
Australia Inventory of Chemical Substances (AICS)  
Australia Occupational Health and Safety (Commonwealth Employment) (National Standards) Regulations 1994 - Hazardous Substances Requiring Health Surveillance  
Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Appendix E (Part 2)  
Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Appendix F (Part 3)  
Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 6  
OECD Representative List of High Production Volume (HPV) Chemicals

MDI oligomer (CAS: 9016-87-9) is found on the following regulatory lists;

Australia - New South Wales Hazardous Substances Requiring Health Surveillance  
Australia - Tasmania Hazardous Substances Requiring Health Surveillance  
Australia - Western Australia Hazardous Substances Requiring Health Surveillance  
Australia Exposure Standards  
Australia Hazardous Substances  
Australia Hazardous Substances Requiring Health Surveillance  
Australia High Volume Industrial Chemical List (HVICL)  
Australia Inventory of Chemical Substances (AICS)  
Australia Occupational Health and Safety (Commonwealth Employment) (National Standards) Regulations 1994 - Hazardous Substances Requiring Health Surveillance  
Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Appendix E (Part 2)  
Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Appendix F (Part 3)  
Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 6  
GESAMP/EHS Composite List of Hazard Profiles - Hazard evaluation of substances transported by ships  
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk  
IMO Provisional Categorization of Liquid Substances - List 1: Pure or technically pure products  
International Agency for Research on Cancer (IARC) Carcinogens  
OECD Representative List of High Production Volume (HPV) Chemicals

No data available for DMDI/ polypropylene glycol trimethyl ether copolymer as CAS: 53170-03-9.

## Section 16 - OTHER INFORMATION

Denmark Advisory list for selfclassification of dangerous substances

Substance	CAS	Suggested codes
4, 4' - diphenylmethane diisocyanate (MDI)	26447-40-5	R43

### INGREDIENTS WITH MULTIPLE CAS NUMBERS

Ingredient Name	CAS
4, 4' - diphenylmethane diisocyanate (MDI)	101-68-8, 26447-40-5

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:  
[www.chemwatch.net/references](http://www.chemwatch.net/references).

The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

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