

Material Safety Data Sheet

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Issue date: March 2008

SUNCURE DG

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: Suncure

Synonym: None

Use: Polyurethane Curative

Era Polymers Pty Ltd

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Banksmeadow NSW 2019

Australia

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2. HAZARDS IDENTIFICATION

HAZARDOUS ACCORDING TO EU CRITERIA

Hazard Category: Toxic (T)

Hazard Classification: HAZARDOUS SUBSTANCE, DANGEROUS GOOD

RISK PHRASES

R22 Harmful if swallowed.

R45 May cause cancer.

R50 Very toxic to aquatic organisms.

R53 May cause long term adverse effects in the aquatic environment.

SAFETY PHRASES

S45 In case of accident or if you feel unwell, contact a doctor or Poisons Information Centre immediately and show this container or label.

S53 Avoid exposure - obtain special instructions before use.

S60 This material and/or its container must be disposed of as hazardous waste.

S61 Avoid release to the environment. Refer to special instructions/safety data sheet.

Poison Schedule: S7 [Aust]

This material is a Scheduled **S7** Poison and must be stored, handled and used according to the appropriate regulations..

Warning Statement:

Dangerous Poison. May cause cancer - avoid exposure. Do not swallow. Avoid release into the aquatic environment.

If you feel unwell, seek medical attention IMMEDIATELY.

3. COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE NAME

Proportion

CAS Number

MOCA [4,4'-METHYLENE BIS(2-CHLOROANILINE); 2,2'-DICHLORO-4,4'-METHYLENEDIANILINE]
Greater than 60% 101-14-4

All other ingredients not hazardous according to EU Criteria.

4. FIRST AID MEASURES

Swallowed:

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If swallowed, DO NOT induce vomiting. Seek medical attention immediately. Give nothing by mouth. Wash out mouth with water (do not swallow).

Eye:

Immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, then continue flushing for at least 15 minutes. Seek medical attention without delay, preferably from an ophthalmologist.

Skin:

Remove material from skin immediately by washing with soap and plenty of water. Remove contaminated clothing and shoes while washing. Seek medical attention if irritation persists. Wash clothing before reuse. An MDI skin decontamination study demonstrated that cleaning very soon after exposure is important, and that a polyglycol-based skin cleanser or corn oil may be more effective than soap and water. This may also apply to other isocyanates, including TDI.

Inhaled:

Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Seek medical attention.

First Aid Facilities:

Eye wash fountain, safety shower and normal washroom facilities.

Advice to Doctor:

Treat symptomatically.

In case of poisoning, contact Poisons Information Centre

In Australia call Tel: 131126

In New Zealand Tel: 034747000

5. FIRE-FIGHTING MEASURES

Fire/Explosion Hazard

EXTINGUISHING MEDIA: Use carbon dioxide, dry chemical, protein-based foam or alcohol-resistant foam. If water is to be used, it must be sprayed only in large quantities.

SPECIFIC METHODS: Down-wind personnel must be evacuated.

SPECIFIC HAZARDS: During a fire, smoke may contain the original material in addition to combustion products of varying composition, which may be toxic and/or irritating. Contamination of isocyanates with water could lead to dangerous pressure inside closed containers by generation of carbon dioxide. Containers may burst if overheated. Do not discharge extinguishing waters into streams, rivers and lakes.

HAZARDOUS COMBUSTION PRODUCTS: Combustion products may include and are not limited to: nitrogen oxides, carbon oxides, hydrogen cyanide.

PROTECTIVE EQUIPMENT: Wear positive-pressure self-contained breathing apparatus and protective fire-fighting clothing (including fire-fighting helmet, coat, trousers, boots and gloves).

HAZCHEM CODE: 2XE [Aust]

FLAMMABILITY

This product is not flammable.

6. ACCIDENTAL RELEASE MEASURES

PROTECT PEOPLE:

Evacuate non-emergency personnel from area. Only trained and properly protected personnel should be involved in clean-up operations. If available, use foam to suppress vapours. Respiratory protection should include positive-pressure, self-contained breathing apparatus. Wear adequate personal protective equipment (see Section 8 of this Material Safety Data Sheet).

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PROTECT THE ENVIRONMENT:

Prevent further leakage or spillage. Prevent from entering sewers or drains. Should the product enter sewers or drains, it should be pumped into a covered, vented container; the cover should be placed loosely on the container but not made pressure tight. Move to a well-ventilated area. Emergency services may need to be called to assist in the clean-up operation.

CLEAN UP:

Supplied of suitable decontaminant should always be kept available. Contain and cover the spillage with decontaminant, wet earth or wet sand and leave to react for at least 30 minutes. Shovel residues into open top drums and remove for further decontamination if necessary. Wash area well with water and inspect. Test atmosphere for vapours to ensure safe working conditions before other personnel are allowed in the area.

Suitable decontamination solutions:

Formulation 1: sodium carbonate 5-10%, liquid detergent 0.2-2%, water to make up to 100%.

Formulation 2: concentrated ammonia solution 3-8%, liquid detergent 0.2-2%, water to make up to 100%. If ammonia is used, use good ventilation to prevent vapour exposure.

7. HANDLING AND STORAGE

Avoid contact of this product with water at all times during handling and storage.

HANDLING:

Products based on diisocyanates like TDI should always be used in a well-ventilated area with appropriate local extraction in such a way that the Exposure Standards for these materials are not exceeded. It is recommended that the diisocyanate concentration in the air be checked at regular intervals. Keep equipment clean. Use disposable containers and tools where possible. Do not eat, drink or smoke in working area.

STORAGE:

Store in a dry place. Products based on diisocyanates like TDI react with water liberating carbon dioxide, which can lead to excessive pressure in closed containers, and form solid insoluble polymers, which can block pipes, valves, etc. Contact with copper or copper alloys and galvanised surfaces must be avoided and valves etc. made of these materials must not be used in equipment for storing and handling diisocyanates. It is recommended that stainless steel or mild steel with an appropriate lining be used. Do not store in open containers. Damaged or punctured drums should be emptied and properly disposed of. The recommended storage temperature is 18-24°C.

STORAGE REGULATIONS:

Classified as a dangerous good, Class 6 - Toxic Substances, for storage. Store in accordance with regulations for storage of dangerous goods.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Standards

No exposure standards are available for this product, however, the following exposure standards have been assigned by [NOHSC] to the following components of the product:

MOCA [4,4'-METHYLENE BIS(2-CHLOROANILINE); 2,2'-DICHLORO-4,4'-METHYLENEDIANILINE]

(Worksafe Australia)

[TWA]0.02 ppm 0.22 mg/m³

Carcinogen Category: 2

Notices: Sk

References: H;R

(ACGIH)

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[TWA]0.01 ppm 0.11 mg/m³

Carcinogen Category: A2

Notices: Sk

Engineering Controls

Engineering controls should be installed and regularly monitored to ensure exposure to vapour/aerosol is minimised. Exhaust systems should be designed in accordance with work place conditions; the air should always be moved away from the source of vapour generation and the person working at this point. The odour and irritancy of this material are inadequate to warn of excessive exposure.

Personal Protection Equipment

CLOTHING: Wear overalls, boots, apron and gloves to prevent skin contact with this product. Permeation test data indicate that the following are effective protective clothing materials: butyl rubber, neoprene, nitrile/butadiene rubber (nitrile or NBR), or laminated polyethylene.

GLOVES: Wear chemical resistant gloves to prevent skin contact with this product. Refer to AS/NZS2161.10. Examples of preferred glove barrier materials include: butyl rubber, chlorinated polyethylene, polyethylene, or ethyl vinyl alcohol laminate (EVAL). Examples of acceptable glove barrier materials include: natural rubber (latex), neoprene, nitrile/butadiene rubber (nitrile or NBR), polyvinyl chloride (PVC or vinyl), or viton.

EYES: Wear approved chemical goggles or faceshield to protect eyes. Refer to AS/NZS1336, AS/NZS1337.

RESPIRATORY PROTECTION: Atmospheric levels should be maintained below the exposure standard. When atmospheric levels may exceed the exposure standard, use an approved air-purifying respirator equipped with an organic vapour sorbent and a particulate filter. Exercise caution in use of an air-purifying respirator as the safe exposure level for TDI is well below the odour threshold. For situations where the atmospheric levels may exceed the level for which an air-purifying respirator is effective, use a positive pressure air-supplying respirator (airline or self-contained breathing apparatus). For emergency response or for situations where the atmospheric level is unknown, use an approved positive-pressure self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. Refer to AS/NZS1715.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Light yellow crystalline pellet, slight amine odour.
Boiling Point, Melting Point:	BP = 202-214°C @ 3mmHg, MP = 98-105°C
Vapour Pressure:	0.00001mmHg @ 25°C
Specific Gravity:	1.44
Flash Point:	> 230°C
Flammability Limits:	Not determined
Solubility in Water:	Insoluble

Other Properties

Soluble in acetone, toluene and ethyl alcohol.

10. STABILITY AND REACTIVITY

STABILITY:

Stable under normal conditions of use.

HAZARDOUS DECOMPOSITION PRODUCTS:

Emits acrid smoke and fumes when heated to decomposition.

HAZARDOUS POLYMERIZATION:

Will not occur.

INCOMPATIBILITIES:

Strong alkalis, acids, nitrates and oxidizing agents.

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CONDITIONS TO AVOID:

Heat, flames, ignition sources and incompatibles.

11. TOXICOLOGICAL INFORMATION

No adverse health effects are expected, if the product is handled in accordance with this Material Safety Data Sheet and the product label. Symptoms and effects that may arise if the product is mishandled and overexposure occurs are:

ACUTE HEALTH EFFECTS:

May cause effects on the blood, resulting in formation of methaemoglobin. This can cause headaches, dizziness, nausea and a bluish colour to the skin and lips. The effects may be delayed. Higher levels can cause trouble breathing, collapse and even death. Medical observation is indicated.

Swallowed:

Toxic if swallowed.

May cause irritation to mouth, throat and stomach with effects including mucous build up, irritation to the tongue and lips and pains in the stomach, which may lead to nausea, vomiting and diarrhoea.

Eye:

May cause irritation to the eyes, with effects including: tearing, pain, stinging and blurred vision.

Skin:

Toxic by skin contact.

May cause irritation to the skin, with effects including: Redness and itchiness.

Inhaled:

Toxic if inhaled.

May cause irritation to the nose, throat and respiratory system with effects including: Dizziness, headache and loss of co-ordination.

Chronic:

Prolonged or repeated skin contact may lead to dermatitis.

Prolonged or repeated exposure may lead to cancer.

Prolonged or repeated exposure may lead to irreversible damage to health.

Additional information for Chronic

MOCA [4,4'-METHYLENE BIS(2-CHLOROANILINE)]:

LD50 (oral, rat) = 1140 mg/kg

LD50 (oral, mouse) = 640 mg/kg

LD50 (oral, guinea-pig) = 400 mg/kg

LD50 (skin, rabbit) > 5 g/kg

LD50 (subcutaneous, rat) > 5 g/kg

LD50 (intraperitoneal, mouse) = 64 mg/kg

Toxicological Data:

There is no other toxicological information available for this product.

12. ECOLOGICAL INFORMATION

Ecotoxicity:

No data available for this product.

Mobility:

This product is insoluble in water.

Persistence / Degradability:

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Key Legend Information:

NOHSC - National Occupational Health & Safety Commission {Formerly Worksafe}[Aust]

SUSDP - Standard for the Uniform Scheduling of Drugs and Poisons [Aust]

TWA - Time Weighted Average [Int]

STEL - Short Term Exposure Limit [Int]

AICS - Australian Inventory of Chemical Substances

EPA - Environmental Protection Agency [Int]

NIOSH - National Institute for Occupational Safety and Health [US]

AS/NZS 1715 - Selection, use and maintenance of respiratory protective devices. [Aust/NZ]

AS/NZS 1716 - Respiratory protective devices. [Aust/NZ]

IATA - International Aviation Transport Authority [Int]

ICAO - International Civil Aviation Organization [Int]

IMO - International Maritime Organisation. [Int]

IMDG - International Maritime Dangerous Goods [Int]

United Nations Recommendations for the Transport of Dangerous Goods and Globally Harmonized System for the classification and labelling of Chemicals. [Int]

EU - European Union

[Aust/NZ] = Australian New Zealand

[Int] = International

[US] = United States of America

Removal of the heading of *Poison Schedule [Aust]*, in section 3 and 15 of this Material Safety Data Sheet (MSDS) makes this a valid health and safety document in other international jurisdictions/countries. For full compliance please contact your Federal, State or Local regulators for further information.

Disclaimer

This MSDS summarises our best knowledge of the health and safety hazard information available on the product and the measures to be used to handle and use the product safely. Each user should read this MSDS and consider the information in connection with the way the product is intended to be handled or used.

Principal References:

Information supplied by manufacturer, reference sources including the public domain.

END OF MSDS