

Safety data sheet

LUPRANATE® 17 ISOCYANATE

Revision date : 2007/08/28
Version: 2.2

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(30231950/MDS_GEN_CA/EN)

1. Substance/preparation and company identification

Company
BASF CANADA
100 Milverton Drive
Mississauga, ON L5R 4H1

24 Hour Emergency Response Information
CANUTEC (reverse charges): (613) 996-6666
BASF HOTLINE (800) 454-COPE (2673)

Molecular weight:	360 g/mol
Chemical family:	aromatic isocyanates
Synonyms:	POLYMETHYLENE POLYPHENYLISOCYANATE

2. Hazardous ingredients

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Hazardous ingredients</u>
101-68-8	>= 30.0 - <= 60.0 %	Diphenylmethane-4,4'-diisocyanate (MDI)
26447-40-5	>= 5.0 - <= 10.0 %	Methylenediphenyl diisocyanate
9016-87-9	>= 30.0 - <= 60.0 %	P-MDI

3. Hazard identification

Emergency overview

Irritating to eyes, respiratory system and skin.
May cause sensitization by inhalation.

Potential health effects

Acute toxicity:
May cause sensitization by inhalation.

Irritation:
Irritating to eyes, respiratory system and skin.

Medical conditions aggravated by overexposure:

The isocyanate component is a respiratory sensitizer. It may cause allergic reaction leading to asthma-like spasms of the bronchial tubes and difficulty in breathing. Persons with asthmatic conditions, chronic bronchitis, other chronic respiratory diseases, recurrent eczema or pulmonary sensitization should be excluded from working with isocyanates. Once a person is diagnosed as having pulmonary sensitization (allergic asthma) to isocyanates, further exposure is not recommended. An animal study indicated that MDI may induce respiratory hypersensitivity following dermal exposure.

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4. First-aid measures

If inhaled:

Remove the affected individual into fresh air and keep the person calm. Assist in breathing if necessary. Immediate medical attention required.

If on skin:

Wash affected areas thoroughly with soap and water. If irritation develops, seek medical attention.

If in eyes:

In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Immediate medical attention required.

If swallowed:

Rinse mouth and then drink plenty of water. Do not induce vomiting. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Immediate medical attention required.

Note to physician

Hazards:

Symptoms can appear later.

Treatment:

Treat according to symptoms (decontamination, vital functions), no known specific antidote, administer corticosteroid dose aerosol to prevent pulmonary edema.

5. Fire-fighting measures

Flash point:

220 °C

(open cup)

Autoignition:

No data available.

Suitable extinguishing media:

water, dry extinguishing media, carbon dioxide, foam

Hazards during fire-fighting:

nitrous gases, fumes/smoke, isocyanate, vapour

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

Keep containers cool by spraying with water if exposed to fire. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental release measures

Personal precautions:

Clear area. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

Environmental precautions:

Do not discharge into drains/surface waters/groundwater.

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Cleanup:

Dike spillage.

For small amounts: Pick up with suitable absorbent material. Shovel into open container. Do not make container pressure tight. Move container to a well-ventilated area (outside). Spill area can be decontaminated with the following recommended decontamination solution: Mixture of 90 % water, 8 % concentrated ammonia, 2 % detergent. Add at a 10 to 1 ratio. Allow to stand for at least 48 hours to allow escape of evolved carbon dioxide.

For large amounts: If temporary control of isocyanate vapor is required, a blanket of protein foam or other suitable foam (available from most fire departments) may be placed over the spill. Transfer as much liquid as possible via pump or vacuum device into closed but not sealed containers for disposal.

For residues: The following measures should be taken for final cleanup: Wash down spill area with decontamination solution. Allow solution to stand for at least 10 minutes.

7. Handling and storage

Handling

General advice:

Mix thoroughly before use. If bulging of drum occurs, transfer to well ventilated area, puncture to relieve pressure, open vent and let stand for 48 hours before resealing.

Protection against fire and explosion:

No explosion proofing necessary.

Storage

General advice:

Formation of CO₂ and build up of pressure possible. Keep container tightly closed and in a well-ventilated place. Outage of containers should be filled with dry inert gas at atmospheric pressure to avoid reaction with moisture.

Storage incompatibility:

General: Segregate from bases.

Storage stability:

Protect against moisture.

8. Exposure controls and personal protection

Components with workplace control parameters

Diphenylmethane-4,4'-diisocyanate (MDI)	OSHA ACGIH	CLV 0.02 ppm TWA value 0.005 ppm ;	0.2 mg/m ³ ;
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Advice on system design:

Provide local exhaust ventilation to maintain recommended P.E.L.

Personal protective equipment

Respiratory protection:

Wear the following respiratory protection if exposure limits may be exceeded: Wear a NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

Hand protection:

Chemical resistant protective gloves, Suitable materials, Rubber gloves, Plastic gloves

Eye protection:

Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

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General safety and hygiene measures:

Wear protective clothing as necessary to prevent contact. No eating, drinking, smoking or tobacco use at the place of work. Take off immediately all contaminated clothing. Hands and/or face should be washed before breaks and at the end of the shift. At the end of the shift the skin should be cleaned and skin-care agents applied.

9. Physical and chemical properties

Form:	liquid	
Odour:	faint odour, aromatic	
Odour threshold:	No data available.	
Colour:	dark brown	
pH value:		No data available.
Freezing point:	3 °C	(1 ATM)
Boiling point:	200 °C	(5 mmHg)
Vapour pressure:	< 0.00001 mmHg	(20 °C)
Density:	1.22 g/cm ³	(20 °C)
Relative density:	1.22	(25 °C)
Bulk density:	10.16 lb/USg	
Viscosity, dynamic:	200 mPa.s	(20 °C)
Miscibility with water:		Reacts with water.

10. Stability and reactivity

Conditions to avoid:

Avoid moisture.

Substances to avoid:

acids, alcohols, amines, water, Alkalines

Hazardous reactions:

On contact with water, gaseous decomposition products are formed, which cause build-up of pressure in tightly closed containers. Risk of bursting. Reacts with substances which contain active hydrogen.

Decomposition products:

Hazardous decomposition products: carbon monoxide, hydrogen cyanide, nitrogen oxides, aromatic isocyanates, gases/vapours

Thermal decomposition:

> 230 °C

Corrosion to metals:

No corrosive effect on metal.

11. Toxicological information

Acute toxicity

Oral:

LD50/rat: > 10,000 mg/kg
Practically nontoxic.

Inhalation:

LC50/rat: > 2.240 mg/l / 1 h
Moderately toxic.

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12. Ecological information

13. Disposal considerations

Waste disposal of substance:

Incinerate or dispose of in a licensed facility.

Do not discharge substance/product into sewer system.

Container disposal:

Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

14. Transport information

Land transport

TDG

Not classified as a dangerous good under transport regulations

Sea transport

IMDG

Not classified as a dangerous good under transport regulations

Air transport

IATA/ICAO

Not classified as a dangerous good under transport regulations

15. Regulatory information

Federal Regulations

Registration status:

DSL, CA

released / listed

WHMIS classification: D2A: Materials Causing Other Toxic Effects - Very toxic material



D2B: Materials Causing Other Toxic Effects - Toxic material



THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CPR AND THE MSDS CONTAINS ALL THE INFORMATION REQUIRED BY THE CPR.

16. Other information

Recommended use: polyurethane component

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Local contact information

Product Safety

289-360-1300

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