



(chemical resistant gloves, splash protection)

Inhalation: Move person to fresh air. If not breathing, give artificial respiration; if by mouth use rescuer protection (pocket mask, etc). If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

Skin Contact: 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. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands. Safety shower should be located in immediate work area.

Eye Contact: Immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist. Eye wash fountain should be located in immediate work area.

Ingestion: If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

5. Fire Fighting Measures

Suitable extinguishing media

Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

Extinguishing Media to Avoid: Do not use direct water stream. May spread fire.

6. Accidental Release Measures

Methods and materials for containment and cleaning up: Contain spilled material if possible.

Absorb with materials such as: Dirt. Vermiculite. Sand. Clay. Do NOT use absorbent materials such as: Cement powder (Note: may generate heat). Collect in suitable and properly labeled open containers. Do not place in sealed containers. Suitable containers include: Metal drums. Plastic drums. Polylined fiber pacs. Wash the spill site with large quantities of water. Attempt to neutralize by adding suitable decontaminant solution: Formulation 1: sodium carbonate 5 - 10%; liquid detergent 0.2 - 2%; water to make up to 100%, OR 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 vapor exposure. See section 13, Disposal Considerations for additional information.

7. Handling and Storage

USAGE PRECAUTIONS: Avoid spilling, skin and eye contact. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level.

STORAGE PRECAUTIONS: Keep in cool, dry, ventilated storage and closed containers. Keep in original container. Store below 25 °C.

8. Exposure Controls / Personal Protection

Personal Protection

Eye/Face Protection: Use chemical goggles. Chemical goggles should be consistent with EN 166 or equivalent. Eye wash fountain should be located in immediate work area.

Skin Protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

Hand protection: Use chemical resistant gloves classified under Standard EN374: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Butyl rubber. Chlorinated polyethylene. Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride ("PVC" or "vinyl"). Viton. When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374) is recommended. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Respiratory Protection: Atmospheric levels should be maintained below the exposure guideline. When atmospheric levels may exceed the exposure guideline, use an approved air-purifying respirator equipped with an organic vapor sorbent and a particle filter. 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 (air line 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 air line with auxiliary self-contained air supply. Use the following CE approved air-purifying respirator: Organic vapor cartridge with a particulate pre-filter, type AP2.

Ingestion: Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating.

Engineering Controls

Ventilation: Use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations. Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines. Exhaust systems should be designed to move the air away from the source of vapor/aerosol generation and people working at this point. The odor and irritancy of this material are inadequate to warn of excessive exposure.

9. Physical and Chemical Properties

APPEARANCE: Liquid.

VISCOSITY: 3000 - 4000 mPas @ 25 °C

10. Stability and Reactivity

STABILITY: Normally stable.

CONDITIONS TO AVOID: Avoid excessive heat for prolonged periods of time.

MATERIALS TO AVOID: Acid reactive. Water reactive material.



HAZARDOUS DECOMPOSITION PRODUCTS: Fire creates: Toxic gases/vapours/fumes of: Carbon monoxide (CO). Carbon dioxide (CO₂). Cyanides. Nitrous gases (NO_x).

11. Toxicological Information

HEALTH WARNINGS:

INHALATION. Preparation contains small volumes of isocyanate which may cause allergic reaction and irritation of respiratory system. Prolonged inhalation of high concentrations may damage respiratory system.

SKIN CONTACT. Irritating to skin. May cause sensitisation by skin contact.

EYE CONTACT. Irritating to eyes.

INGESTION. May cause discomfort.

TARGET ORGANS: Skin. Eyes. Respiratory system, lungs.

12. Ecological Information

Toxicity

The measured ecotoxicity is that of the hydrolyzed product, generally under conditions maximizing production of soluble species. Material is not classified as dangerous to aquatic organisms (LC₅₀/EC₅₀/IC₅₀/LL₅₀/EL₅₀ greater than 100 mg/L in most sensitive species).

Fish Acute & Prolonged Toxicity

Based on information for a similar material: LC₅₀, Danio rerio (zebra fish), static, 96 h: > 1,000 mg/l

Aquatic Invertebrate Acute Toxicity

Based on information for a similar material: EC₅₀, water flea Daphnia magna, static, 24 h: > 1,000mg/l

13. Disposal Considerations

DISPOSAL METHODS: Dispose of in accordance with Local Authority requirements. Do not allow run off to sewer, waterway or ground. Contact specialist disposal companies.

14. Transport Information

ROAD & RAIL

NOT REGULATED

OCEAN

NOT REGULATED

AIR

NOT REGULATED

Environmental Hazard: No

15. Regulatory Information

Classification according to the Malaysian Occupational Safety and Health (Classification, Packaging and Labelling of Hazardous Chemicals) Act 1994 (Regulations 1997).

European Inventory of Existing Commercial Chemical Substances (EINECS)

The components of this product are on the EINECS inventory or are exempt from inventory requirements.

Classification and User Label Information

Hazard Symbol:

Xn - Harmful.

Risk Phrases :

R40 - Limited evidence of a carcinogenic effect.

R20 - Harmful by inhalation.

R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation.

R36/37/38 - Irritating to eyes, respiratory system and skin.

R42/43 - May cause sensitization by inhalation and skin contact.

Safety Phrases :

S23 - Do not breathe vapour/gas/fumes/spray.

S36/37 - Wear suitable protective clothing and gloves.

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Contains: Diphenylmethane-4,4'-di-isocyanate

Contains isocyanates. See information supplied by the manufacturer.

16. Other Information

Product Literature

Additional information on this product may be obtained by calling your sales or customer service contact.

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. We make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of the information for their particular purposes.