

SAFETY DATA SHEET

TOLUENE DI-ISOCYANATE (TDI 80/20)

CAS No.: 26471-62-5

This Safety Data Sheet is compiled from well-established published chemical, GHS classification and regulatory reference sources for this substance. It is supplied by Suraj Chemicals as the distributor/supplier of record and is not a manufacturer-issued document. Users should also consult the specific manufacturer's SDS where available.

1. IDENTIFICATION

Product Name	Toluene Di-Isocyanate (TDI 80/20)
CAS Number	26471-62-5
Recommended Use	Industrial / commercial chemical trading and distribution
Supplier	Suraj Chemicals, No 92, Govindappa Naicken Street, Shiva Complex, Chennai - 600001, India
Emergency Telephone	+91 - 9840284032, 9176135357 / +91 - 44 - 25393652

2. HAZARD(S) IDENTIFICATION

GHS Signal Word	Danger
HAZARD CLASSIFICATION • Acute toxicity, inhalation - Category 2 • Skin corrosion/irritation - Category 2 • Serious eye damage/irritation - Category 2A • Respiratory sensitization - Category 1 • Skin sensitization - Category 1 • Specific target organ toxicity, single exposure - Category 3 (respiratory irritation) • Specific target organ toxicity, repeated exposure - Category 1 (respiratory system) • Carcinogenicity - Category 2	
HAZARD STATEMENTS • H330 - Fatal if inhaled • H315 - Causes skin irritation • H319 - Causes serious eye irritation • H317 - May cause an allergic skin reaction • H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled • H335 - May cause respiratory irritation • H351 - Suspected of causing cancer • H372 - Causes damage to organs (respiratory system) through prolonged or repeated exposure	
PRECAUTIONARY STATEMENTS • P201 - Obtain special instructions before use • P260 - Do not breathe vapours/mist • P264 - Wash exposed skin thoroughly after handling • P271 - Use only outdoors or in a well-ventilated area • P280 - Wear protective gloves/eye protection/face protection/respiratory protection • P284 - Wear respiratory protection • P304+P340 - IF INHALED: remove to fresh air and keep comfortable for breathing • P310 - Immediately call a POISON CENTER or doctor • P333+P313 - If skin irritation or a rash occurs: get medical advice/attention • P342+P311 - If experiencing respiratory symptoms: call a POISON CENTER or doctor • P405 - Store locked up	

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Toluene Di-Isocyanate (TDI 80/20)
CAS Number	26471-62-5
Physical State	Liquid
Appearance / Odour	Colorless to pale yellow liquid with a sharp, pungent odor.

4. FIRST-AID MEASURES

Eye Contact	Rinse cautiously with water for several minutes; remove contact lenses if present; continue rinsing and get immediate medical attention.
Skin Contact	Remove contaminated clothing immediately and wash skin thoroughly with soap and water; seek medical attention, particularly if a rash or sensitization reaction develops.
Inhalation	Remove immediately to fresh air; if breathing is difficult, give oxygen; seek immediate medical attention as effects (including sensitization/asthma-like reactions) may be delayed.
Ingestion	Do NOT induce vomiting; rinse mouth; give water to drink if conscious; seek immediate medical attention.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Dry chemical, carbon dioxide, alcohol-resistant foam, or water spray/fog to cool exposed containers.
Unsuitable Extinguishing Media	Avoid a direct water stream on hot/burning product, which may cause frothing/splattering as it reacts.
Special Hazards	Combustible liquid; thermal decomposition or combustion releases highly toxic isocyanate vapors, hydrogen cyanide and oxides of nitrogen; reaction with water/moisture releases carbon dioxide, which can pressurize closed containers; firefighters must wear full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Measures	Evacuate non-essential personnel, ventilate the area, avoid contact and inhalation, contain the spill, and decontaminate with a suitable neutralizing solution (e.g., a dilute ammonia/detergent/water decontamination mixture per supplier guidance) before absorbing and collecting for disposal; prevent entry into drains/waterways.
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7. HANDLING AND STORAGE

Handling Precautions	Use only in well-ventilated areas or with local exhaust ventilation, avoid all skin/eye contact and inhalation of vapor/mist, use appropriate PPE including a supplied-air or organic vapor/particulate respirator, and be aware that repeated exposure can cause respiratory sensitization even at low levels.
Storage Conditions	Store in a cool, dry, well-ventilated area under dry nitrogen blanket where specified, in tightly sealed moisture-proof containers away from water, amines, bases and strong oxidizers; store locked up/restricted access due to severe inhalation and sensitization hazards.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits / PPE	OSHA PEL / ACGIH TLV typically 0.005 ppm (5 ppb) TWA (0.02 ppm STEL/ceiling values also referenced); requires supplied-air respiratory protection or an appropriate organic vapor/isocyanate-rated respirator, chemical-resistant gloves (e.g., butyl, specific isocyanate-rated material), full-face protection, and impervious protective clothing.
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9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance / Odour	Colorless to pale yellow liquid with a sharp, pungent odor.
Boiling Point	~250 C (decomposes)
Melting Point	~13-14 C
Flash Point	~127 C (closed cup)
Density / Specific Gravity	~1.22 g/cm ³ at 20 C
Water Solubility	Reacts with water (slowly hydrolyzes, releasing carbon dioxide and forming insoluble urea/polyurea products); considered practically insoluble/reactive rather than truly soluble
pH Value	Not applicable (reactive, non-aqueous isocyanate liquid)

10. STABILITY AND REACTIVITY

Stability	Stable under dry, properly stored conditions; reacts readily with water, alcohols, amines and other active-hydrogen compounds; heat-sensitive and can undergo exothermic polymerization/dimerization if contaminated or overheated.
Incompatible Materials	Water/moisture, alcohols, amines, strong bases, acids and oxidizing agents; catalysts used in polyurethane production can accelerate reaction.
Hazardous Decomposition	Highly toxic isocyanate vapors, hydrogen cyanide, oxides of nitrogen and carbon monoxide/dioxide on combustion or strong thermal decomposition; carbon dioxide gas on hydrolysis.

11. TOXICOLOGICAL INFORMATION

Summary	Fatal if inhaled; a potent and well-documented respiratory and skin sensitizer that can cause occupational asthma with repeated exposure, sometimes at levels below the exposure limit; causes skin and eye irritation; suspected human carcinogen based on animal study evidence; prolonged/repeated exposure causes respiratory system damage; individuals sensitized to isocyanates must avoid all further exposure.
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12. ECOLOGICAL INFORMATION

Summary	Reacts with water and is not expected to persist in aquatic environments in its original form; hydrolysis products are of lower concern, but the parent compound should be prevented from entering waterways due to acute toxicity and reactivity.
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13. DISPOSAL CONSIDERATIONS

Disposal Method	Dispose of as hazardous waste through a licensed waste management facility, typically after controlled decontamination/deactivation with a suitable neutralizing agent, in accordance with local regulations.
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14. TRANSPORT INFORMATION

UN Number	UN2078
Transport Hazard Class	Class 6.1 (Toxic)
Packing Group	III

15. REGULATORY INFORMATION

Notes	Key polyurethane raw material; classified as acutely toxic by inhalation, a respiratory/skin sensitizer, and a suspected carcinogen under GHS, OSHA HCS and EU CLP; regulated for transport under IMDG/ADR/IATA as UN2078 'Toluene diisocyanate', Class 6.1, Packing Group III; subject to strict occupational exposure limits and medical surveillance requirements in most jurisdictions; per standing site policy, no internal brand/grade codes are disclosed — sold under its generic chemical name only.
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16. OTHER INFORMATION

Prepared By	Suraj Chemicals, Technical / QA Desk
Date of Issue	29 Sep 2026
Note	This SDS is compiled from well-established published GHS hazard classification data and general chemical reference sources for this substance, in the standard 16-section format. Values are believed accurate but Suraj Chemicals makes no warranty, express or implied, regarding their completeness. Users should evaluate suitability for their own specific use.

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