



Karun Petrochemical Company

Site 2, Petrochemical Special
Economic Zone (Pet zone), Bandar-
e-Imam Khomeini-Iran

Property	Specification	Analytical Method
Appearance @ 30 °C	Clear liquid	Visual
Purity, %wt.	Min. 99.5	GC
2,4-TDI Content, %wt.	80.0 ± 1.0	ASTM D4660.00
2,6-TDI Content, %wt.	20.0 ± 1.0	ASTM D4660.00
Total Acidity, ppm by wt.	Max. 40	ASTM D5629.05
Hydrolysable chlorine, ppm by wt.	Max. 120	ASTM D 663.98
Total chlorine, ppm by wt.	Max. 500	ASTM D4661.03
Colour (APHA)	Max.25	ASTM D4877.04
Sp.gr @ 25 °C	1.22 ± 0.02	ASTM D4659.03
Nitro Isocyanate compounds, ppm	Max.30	H900.5800

TOLUENE DIISOCYANATE (TDI)

⇒ The current manufacturing technology of most isocyanates is based on the phosgenation of primary amines.

■ Application areas

TDI is commonly used to manufacture:

- ✓ Flexible foams – used for the fabrication of bedding, furniture, automotive seating, flexible packaging and carpet underlay; this is the largest market application for TDI
- ✓ “Foamed-in-place” polyurethane plastics – ranging from soft and sponge-like to hard and porous for use in furniture, packaging, insulation and boat building
- ✓ Polyurethane coatings – used on leather, wire, tank linings and masonry
- ✓ Elastomers – used to produce adhesives, films and linings, and abrasive wheels and other mechanical items that require abrasion and solvent resistance
- ✓ Rigid, “pour-in-place” foams – for use in appliances, and, in smaller amounts, packaging
- ✓ Urethane sealants – used in construction applications
- ✓ Cast elastomers – for production of articles such as roller blade wheels

■ Handling and storage conditions

Use special care when handling/transporting samples. Store at 20-30°C. Material sampling procedures should avoid vapor inhalation and skin/eye contact and only be conducted with proper protective equipment. Handle empty containers with care - residue may be combustible. When cleaning or repairing equipment contaminated with this material, total encapsulating impervious protective suits, gloves, and boots should be worn to prevent any contact. Decontaminate empty, non-returnable isocyanate drums by filling with water. Allow to stand 48 hours with bung removed. After 48 hours, drain and pierce drums. Wash with sodium carbonate solution (5-10%).

Store in tightly closed/properly vented containers with vents directed to locations removed from potential personnel exposure. Store in well ventilated area away from water, moisture, humidity, and direct sunlight. Store at 20-30°C. Do not store in galvanized or other corrodible containers. Storage and handling in stainless steel is preferred. Storage in polyethylene containers is hazardous because of absorption of water

through the plastic.

■ **Packing details**

In 220 lit (250 kg Net.) new steel drum, each 4 drums strapped on a wooden pallet.

■ **Licensor: Chematur Engineering (CEAB), Sweden.**