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Section 1: Identification

1.1 Product identifier:

WANNATE® TL-75E

1.2 Recommended use:

Identified uses: Raw material for coatings, adhesives, sealants or elastomers in industrial applications.

Restrictions on use: Consumer and domestic (household) uses.

1.3 Supplier:

Wanhua Chemical (America) Co., Ltd.
3803 West Chester Pike, Suite 125
Newtown Square, PA 19073
Customer service telephone: 610-566-5297 Telephone in Canada: 833-566-6057
www.whchem.com

1.4 Emergency telephone number:

North America: Chemtrec 800-424-9300 (domestic)
+1-703-527-3887 (international, collect calls accepted)
Europe: +31 20 20 65132/65130 (08:30-17:30) +44 780 183 7343

Section 2: Hazard Identification

2.1 Classification:

Classified according to US Hazard Communication Standard (HCS 2012) and Canada Hazardous Products Regulations (WHMIS 2015).

Flammable liquid Cat. 2; H225
Eye irritation Cat. 2A; H319
Skin Sensitization Cat. 1; H317
Respiratory Sensitization Cat. 1; H334
Specific Target Organ Toxicity Single Exposure Cat. 3; H336
Carcinogenicity Cat. 2; H351

2.2 Label elements:

Danger

Highly flammable liquid and vapor.
Causes serious eye irritation.
May cause an allergic skin reaction.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause drowsiness and dizziness.
Suspected of causing cancer.

Prevention

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat, sparks, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Keep container tightly closed.
Ground and bond container and receiving equipment.
Use explosion-proof electrical, ventilating and lighting equipment.
Use non-sparking tools.
Take action to prevent static discharges.
Wash hands and exposed skin thoroughly after handling.
Wear protective gloves, protective clothing and eye protection or face protection.
Avoid breathing vapors, fume, spray or dust.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing should not be allowed out of the workplace.
In case of inadequate ventilation wear respiratory protection.

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2.2 Label elements: (continued)

Response

IF ON SKIN (or hair): Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical attention. Take off contaminated clothing and wash it before reuse.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor.

If exposed or concerned: Get medical attention.

In case of fire: Use foam or water spray for extinction.

Storage

Store in a well-ventilated place. Keep cool.
Store locked up.

Disposal

Recycle and or dispose of contents and containers in accordance with local, regional, national and international regulations.

2.3 Other hazards:

Repeated exposure may cause skin dryness or cracking.
Very toxic to aquatic life with long-lasting effects.
Contains isocyanates; may react in contact with water and other materials releasing heat and gases (see Section 10).

Section 3: Composition/Information on Ingredients

Chemical Name	CAS RN®	Wt.%	Substance Classification
Toluene diisocyanate, oligomeric reaction products with 2,2'-oxydiethanol and propylidenetrimethanol	53317-61-6	65 - 85	Eye Irrit. 2A; H319 Skin Sens. 1; H317 Aquatic chronic 1; H410
Ethyl acetate	141-78-6	15 - 40	Flam. Liq. 2; H225 Eye Irrit. 2B ; H320 STOT SE 3; H336 EUH 066
TDI - Toluene diisocyanate	26471-62-5	0.5	Skin Irrit. 2; H315 Skin Sens. 1; H317 Eye Irrit. 2A; H319 Acute Tox. 1; H330 Resp. Sens. 1; H334 STOT SE 3; H335 Carc. 2; H351 Aquatic Chronic 3; H412

Section 4: First-Aid Measures

4.1 Description of first-aid measures:

Precautions: Take precautions to ensure your own safety before attempting rescue (e.g. wear appropriate protective equipment). First-aid providers should avoid direct contact with this chemical.

Inhalation: If breathing is difficult, remove person to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTRE or doctor.
If breathing has stopped, trained personnel should begin artificial respiration (AR) or, if the heart has stopped, cardiopulmonary resuscitation (CPR) immediately. Immediately obtain medical attention and transport victim to an emergency care facility.

Skin Contact: Take off immediately all contaminated clothing shoes and leather goods (e.g. watchbands, belts). Wash exposed skin with plenty of water and mild, non-abrasive soap. Completely decontaminate clothing, shoes and leather goods before reuse or discard. If skin irritation or rash occurs: Get medical attention.

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4.1 Description of first-aid measures (continued):

Eye Contact: Remove source of exposure or move person to fresh air. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

If product is a solid in the eye: Do not allow victim to rub eye(s). Let the eye(s) water naturally for a few minutes. Have victim look right and left, and then up and down. If particle/dust does not dislodge, rinse cautiously with water until particle is removed. If irritation persists, obtain medical attention. DO NOT attempt to manually remove anything stuck to eye(s).

Ingestion: If swallowed, call a POISON CENTER or doctor. Never give anything by mouth if victim is rapidly losing consciousness or is unconscious or convulsing. Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration.

4.2 Most important symptoms and effects, acute and delayed:

Inhalation: Respiratory tract irritation, difficulty breathing or asthmatic reaction, headache, nausea, drowsiness and dizziness.

Skin Contact: May cause in tingling, irritation or redness of the skin inflammation, rash, itching and staining.

Eye Contact: Irritation and redness of the eye tissue.

Ingestion: Swallowing is expected to cause drowsiness and dizziness, weakness, nausea and vomiting. Causes irritation of the tissues of the mouth, throat and digestive tract. TDI is suspected of causing cancer.

4.3 Indication of any immediate medical attention and special treatment needed:

Get immediate medical attention if inhaled or if allergy symptoms develop.

Section 5: Fire-fighting Measures

5.1 Extinguishing media:

Carbon dioxide, dry chemical powder, dry sand, alcohol-resistant foam. Alcohol resistant foams are preferred for large fires. Use water spray to cool fire-exposed containers.

Unsuitable extinguishing media: High volume water jet. Exercise caution when using water since the reaction between water and hot isocyanates can be vigorous and will generate CO_2 gas.
Water may be ineffective because it will not cool ethyl acetate below its flash point.

5.2 Special hazards arising from the chemical:

Product contains a highly flammable liquid, Ethyl acetate. Flash point = -4°C (24.8°F) Auto-ignition temperature = 426°C (800°F).
May accumulate an electrostatic charge which may cause an electrical spark (ignition source).
Vapor is heavier than air and may flash back to a leak or open container.
Vapors can accumulate in confined spaces, resulting in a toxicity and explosion hazard.
During a fire, products of combustion may include toxic hydrogen cyanide, isocyanate vapor, carbon monoxide, carbon dioxide, nitrogen oxides, dense smoke and irritating or toxic fumes.
Closed containers may rupture violently when heated or contaminated with water.

5.3 Special protective equipment and precautions for fire-fighters:

As for any fire, evacuate the area and fight the fire from a safe distance. Firefighters must wear full protective equipment including positive pressure self-contained breathing apparatus and chemical protection clothing.

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures:

Wear adequate personal protective equipment, including an appropriate respirator as indicated in Section 8. Isolate spill area, preventing entry by unauthorized persons. Ventilate area of spill. Do not touch or walk through spilled material.
Stop the leak if you can do it without risk.

When cleaning with Decontamination solution, harmful gases may evolve; ensure adequate ventilation or wear a respirator.

6.2 Environmental precautions:

Avoid releases to the environment and prevent material from entering confined areas, domestic sewers, natural waterways, or storm water management systems.

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6.3 Methods and material for containment and cleaning up:

Immediately shut off the leak if it is safe to do so. Contain the spill with suitable non-combustible absorbent material (e.g. sand, silica gel, acid binder, universal binder). Use clean non-sparking tools to collect absorbed material.

Shovel into open-top drums or plastic bags for further decontamination, if necessary. Do not seal drums or containers.
Neutralize small spills with Decontamination solution.
Never return spills in original containers for re-use.

Wash area with one of the following Decontamination solutions:
Formulation A: Liquid surfactant 0.2% to 2%; Sodium carbonate 5% to 10%; Water to make up to 100%.
Formulation B: Liquid surfactant 0.2% to 2%; Concentrated ammonia 3% to 8%; Water to make up to 100%.
Formulation C: Ethanol, isopropanol or butanol 50%; Concentrated ammonia 5%; Water to make up to 100%.
Formulation B reacts faster than Formulation A.
Formulation C is especially suitable for cleaning of equipment from unreacted isocyanate and neutralizing under freezing conditions.

Section 7: Handling and Storage

7.1 Precautions for safe handling:

Before handling, it is important that engineering controls are operating, protective equipment requirements and personal hygiene measures are being followed. People working with this chemical should be properly trained regarding its hazards and its safe use.
Persons allergic to isocyanates, and particularly those suffering from asthma or other respiratory conditions, should not work with isocyanates.
Do not breathe vapors, fumes, spray mist or dusts from this material.
Avoid contact with skin and eyes.
Use only in a well-ventilated area.
Wear respiratory protection when handling heated product or if spraying.
Wear protective gloves, protective clothing and eye/face protection.
Contaminated work clothing must not be allowed out of the workplace.
Do not reseal containers if contamination of containers is suspected.
Keep containers closed when not in use. Assume that empty containers contain residues which are hazardous.
Use explosion-proof electrical, ventilating and lighting equipment.
Use non-sparking tools.
Take action to prevent static discharges.
Never perform any welding, cutting, soldering, drilling or other hot work on an empty vessel, container or piping until all liquid and vapors have been cleared.

Keep away from food and drink. Wash hands and exposed skin before eating, drinking or smoking and at the end of the workshift.

Refer to directives and regulations for instructions on the safe handling, employee training, monitoring and enforcement procedures for isocyanates [e.g. US Department of Labor, OSHA Directive # CPL 03-00-017 National Emphasis Program – Occupational Exposure to Isocyanates. Ontario Designated Substances Regulation-Isocyanates].

7.2 Conditions for safe storage:

Store in a dry, well-ventilated area, out of direct sunlight and away from heat, sources of ignition and incompatible materials.
Recommended storage temperature: 0- 30°C (32 - 86°F).
Store in a place accessible by authorized persons only.
Keep containers tightly closed.

Store flammable materials according to occupational health and safety regulations and fire and building codes which will describe the kind of storage area and the type of storage containers for a specified amount of the material. Store product in its original container. Have suitable emergency equipment for fires, spills and leaks readily available.

Protect from moisture/humidity; diisocyanate reacts with water producing CO_2 gas, a hazardous build-up of pressure could result if contaminated containers are re-sealed. Do not re-seal contaminated containers.
Store product in its original container.
Incompatible with copper and copper alloys, brass and bronze, and galvanized surfaces.

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Section 8: Exposure Controls / Personal Protection

8.1 Control parameters:

Occupational Exposure Limits: Consult local authorities for acceptable exposure limits.

Ingredient	ACGIH® TLV®	U.S. OSHA PEL	Other Exposure Limits
Toluene diisocyanate, oligomeric reaction products with 2,2'-oxydiethanol and propylidenetrimethanol	None established	None established	None established
Ethyl acetate	400 ppm TWA	1400 mg/m^3 (400 ppm) TWA	NIOSH REL: 400 ppm TWA (1400 mg/m^3) IDLH (immediately dangerous to life or health) = 2000 ppm
TDI – Toluene Diisocyanate	0.001 ppm STEL 0.005 ppm (Inhalable fraction and vapor)	0.005 ppm STEL 0.02 ppm, Ceiling	NIOSH IDLH: 2.5 ppm Ontario (Canada) TWA: 0.005 ppm 0.02 ppm Ceiling Designated Substance AIHA ERPG Values: ERPG-1: 0.01 ppm ERPG-2: 0.15 ppm ERPG-3: 0.6 ppm
Some jurisdictions have specific regulations for isocyanates. These regulations may include requirements for medical surveillance programs, including pre-employment and pre-placement examinations, periodic medical examinations, clinical tests, health education and record keeping. Obtain detailed information from the appropriate government agency in the relevant jurisdiction.			

8.2 Engineering Controls:

Handle product in closed system or area provided with appropriate exhaust ventilation.
Handle in accordance with good industrial hygiene and safety practice. Ensure regular cleaning of equipment, work area and clothing. Curing ovens must be properly ventilated to prevent emissions of isocyanate monomer into the workplace. Monitor the workplace air for the presence of isocyanate vapor and fume.

If engineering controls and work practices are not effective in controlling exposure to this material, then wear suitable personal protective equipment including approved respiratory protection. Have equipment available for use in emergencies such as spills or fire.

8.3 Individual protection measures:

Eye/Face protection: Wear chemical safety goggles. Wear a face-shield or full-face respirator when needed to prevent exposure to vapor, liquid, mist or fume.

Skin protection: Wear chemical protective gloves, suit, and boots to prevent skin exposure. Polyethylene/ethylene vinyl alcohol and Polyvinyl alcohol (PVA) gloves may be used to minimize dermal exposures to this material and for cleaning and maintenance operations. Evaluate resistance under conditions of use and maintain protective clothing carefully.

Respiratory protection: Airborne concentrations of TDI may exceed the occupational exposure limits when the product is sprayed, aerosolized or heated. When airborne concentrations of TDI exceed the exposure limits, approved respiratory protective equipment (RPE) is required. Wear an approved air purifying respirator with organic vapor cartridges and HEPA particulate filter or self-contained breathing apparatus (SCBA) or supplied air respirator.

A respiratory protection program that meets the regulatory requirement, such as OSHA's 29 CFR 1910.134 or Canadian Standards Association (CSA) Standard Z94.4, must be followed whenever workplace conditions warrant a respirator's use.

NIOSH Recommendations for TDI concentrations in air: **IDLH (Immediately Dangerous to Life or Health) for TDI =2.5 ppm**
At any detectable concentration: (APF = 10,000) self-contained breathing apparatus that has a full facepiece and is operated in a pressure- demand or other positive-pressure mode; any supplied-air respirator that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained positive-pressure breathing apparatus.

Other protection: Safety shower, hand-wash station and eye-wash fountain readily available in the immediate work area.

Follow the applicable code for medical surveillance program indicated for isocyanates.

Environmental exposure controls: Store finished products in closed containers (e.g. bulk tanks, drums, cans).
All waste products are assumed to be collected and returned for re-processing or incineration.

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Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties:	
Appearance:	Liquid. Brown.
Odor:	Fruity odor of solvent ethyl acetate
Odor threshold:	Not available
pH:	Not available
Melting point/freezing point:	Not available
Initial boiling point and boiling range:	75°C (167°F) decomposes
Flash point:	5°C (41°F), Closed Cup
Flammability:	Highly flammable liquid and vapor
Auto-ignition temperature:	For Ethyl acetate: 427°C (800.6°F)
Upper/lower flammability or explosive limits:	For Ethyl acetate: Lower: 2.0% Upper: 11.5%
Evaporation rate:	Not available
Vapor pressure:	Not available
Vapor density:	Not available
Relative density:	Not available
Solubility:	Insoluble in water; reacts with water
Partition coefficient (n-octanol/water):	Not available; reacts with water
Decomposition temperature:	Not available
Viscosity:	Not available

Section 10: Stability and Reactivity

10.1 Reactivity:

Reacts with Water, Strong oxidizing agents, Amines, Strong bases, Alcohols, Metal compounds (e.g. organotin catalysts).

10.2 Chemical stability:

Product decomposes slowly when stored at controlled room temperature and away from incompatible materials.
Decomposition is accelerated at elevated temperatures.

10.3 Possibility of hazardous reactions:

May react with oxidizing agents: increased risk of fire and explosion.
Contact with water or humidity may cause a slow reaction, forming carbon dioxide which could rupture closed containers.
TDI may undergo uncontrolled exothermic polymerization upon contact with incompatible materials or if heated above 177°C.
The resulting pressure build-up could rupture closed containers.
May react violently with ammonia solution, primary and secondary amines, primary alcohols, oxidizers and hot water.

10.4 Conditions to avoid:

Avoid moisture, heat and freezing temperatures.

10.5 Incompatible materials:

Strong oxidizing agents- increased risk of fire and explosion.
Strong bases, Amines, Alcohols, Acids - May react violently with generation of heat.
Metal compounds (e.g. organotin catalysts) - May polymerize with the generation of heat and pressure.
Amides, phenols, mercaptans, urethanes, ureas and surface active compounds (surfactants, non-ionic detergents) - May react vigorously or violently with the generation of heat.
Water - Reacts slowly, forming carbon dioxide which could rupture closed containers.
May attack and make brittle many plastic and rubber materials.

10.6 Hazardous decomposition products:

By thermal decomposition and combustion, product may generate nitrogen oxide, hydrogen cyanide and isocyanate vapors.

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Section 11: Toxicological Information

11.1 Likely routes of exposure:

Inhalation of vapor or aerosols. Skin contact. Eye contact. Ingestion.

11.2 Information on acute health effects:

Ingestion: Data not available for the mixture.
Swallowing can cause irritation of the digestive tract, abdominal and chest pain, nausea, vomiting, headache, drowsiness, dizziness and other signs of central nervous system depression.

Skin: Data not available for the mixture.
Isocyanates, in general, can cause skin discoloration (staining) and hardening of the skin after repeated exposures.
Exposure to TDI may cause an allergic skin reaction.
Ethyl acetate can cause skin dryness and cracking.

Inhalation: Data not available for the mixture.
Symptoms of exposure to high concentrations of Ethyl acetate vapor or mist include depression of the central nervous system with symptoms such as headache, nausea, drowsiness, and dizziness.
Exposure to TDI may cause allergy or asthma symptoms or breathing difficulties if inhaled.

Acute Toxicity Data

Ingredient	LD_{50} Oral	LD_{50} Dermal	LC_{50} Inhalation
Toluene diisocyanate, oligomeric reaction products with 2,2'-oxydiethanol and propylidenetrimethanol	>5000 mg/kg (rat)	Not available	Not available
Ethyl acetate	4100 mg/kg (mouse) 6100 mg/kg (rat)	>20000 mg/kg (rabbit)	> 22.5 mg/L (rat) as vapor
TDI - Toluene diisocyanate	4130 mg/kg (rat)	>2 000 mg/kg (rabbit)	0.48 mg/L 1-hour (rat) 66 ppm 1-hour (rat)

Skin corrosion / irritation: Data not available for the mixture.

Serious eye damage / irritation: Data not available for the mixture.
Ethyl acetate vapor, liquid or mist causes eye irritation. Symptoms of irritation include discomfort, redness and tears.

11.3 Information on delayed and chronic health effects:

STOT (Specific Target Organ Toxicity) – Single exposure: Data not available for the mixture.
Ethyl acetate vapors can cause drowsiness and dizziness LOEL for neurotoxicity (sedation) = 3000 ppm.
If inhaled TDI is a severe respiratory irritant. Human occupational exposures have resulted in severe respiratory irritation. Respiratory irritation was reported in humans at 0.1 ppm. Single exposure could cause severe, permanent respiratory impairment. TDI has also been reported to cause reactive airways dysfunction syndrome (RADS).

Aspiration hazard: Data not available.

STOT (Specific Target Organ Toxicity) – Repeated exposure: Data not available for the mixture.
From inhalation of TDI: Long-term, low-level exposure may cause severe, permanent respiratory impairment.
Rats (inhalation) NOAEC = 0.05 ppm (2 years)

Sensitization - respiratory and/or skin: May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. Isocyanates are known to cause skin and respiratory sensitization in humans. Animal tests have indicated that respiratory sensitization can result from skin contact with diisocyanates.
Symptoms may initially appear to be a cold or mild hay fever; severe asthmatic symptoms can develop and include wheezing, chest tightness, shortness of breath, difficulty breathing and/or coughing. Fever, chills, general feelings of discomfort, headache and fatigue can also occur. Symptoms may occur immediately upon exposure or may be delayed. Sensitized people who continue to work with isocyanates may develop symptoms sooner after each exposure. The number and severity of symptoms may increase. TDI and other isocyanates may also cause hypersensitivity pneumonitis, another allergic lung disease, which is characterized by symptoms such as shortness of breath, fever, tiredness, non-productive cough, and chills.

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11.3 Information on delayed and chronic health effects (continued):

Carcinogenicity: Data not available for the mixture.
TDI is suspected of causing cancer based on conclusions from animal tests.
The International Agency for Research on Cancer (IARC) has determined there is sufficient evidence for the carcinogenicity of TDI (2,4-TDI, 2,6-TDI and the mixtures of these isomers) in experimental animals.
The International Agency for Research on Cancer (IARC) has concluded that this chemical is possibly carcinogenic to humans (Group 2B) based on animal information.
The American Conference of Governmental Industrial Hygienists (ACGIH) has designated this chemical as not classifiable as a human carcinogen (A3).
The US National Toxicology Program (NTP) has listed this chemical as reasonably anticipated to be a human carcinogen.

Reproductive toxicity: Data not available for the mixture.
Development of offspring: Data for TDI : NOAEL = >0.1 ppm (maternal and developmental toxicity, in rats)
Sexual function and fertility: Data for TDI : NOAEC = >0.3 ppm (2 generation reproduction toxicity study, in rats)

Germ cell mutagenicity: Data not available for the mixture.

Interactive effects: Data not available

Section 12: Ecological Information

12.1 Toxicity:

Data for Ethyl acetate:
LC_{50} *Pimephales promelas* (96 hour): 230 mg/L (flow-through)
EC_{50} *Daphnia magna* (48 hour): 165 mg/L
EC_{50} *Desmodesmus subspicatus* (48 hour): 5600 mg/L

Data for TDI:
LC_{50} *Brachydanio rerio* (96 hour) : 133 mg/L (static system)
EC_{50} *Daphnia magna*(48 hour): 12.5 mg/L
EC_{50} *Pseudokirchnerella subcapitata*: >1000 mg/L

12.2 Persistence and degradability:

Not readily biodegradable.

12.3 Bioaccumulative potential:

Data not available

12.4 Mobility in soil:

Data not available

Section 13: Disposal Considerations

13.1 Disposal methods:

Do NOT discard into any sewers, on the ground or into any body of water.
Store material for disposal as indicated in Section 7 Handling and Storage.
Empty containers retain product residue. Follow label warnings even if container appears to be empty.
The required hazard evaluation of the waste and compliance with the applicable hazardous waste laws are the responsibility of the user.
Consult the manufacturer for recycling options of unused material.
Dispose of contents and container in accordance with local, regional, national and international regulations.

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Section 14: Transport Information

14.1 U.S. Hazardous Materials Regulation (DOT 49CFR):
UN1866

14.2 Shipping name:
RESIN SOLUTION, FLAMMABLE

14.3 Transport hazard class(es):
Class 3

14.4 Packing group:
PG II

14.5 Environmental hazards:
Reportable Quantity for US Shipments:
Ethyl acetate - 5000 lbs (2 270 kg) RQ
Toluene diisocyanate (TDI) - 100 lb (45.4 kg) RQ

14.6 Special precautions for user:
Contains isocyanates. Keep away from moisture and water.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:
Noxious liquid substances, TDI Category Y

Section 15: Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

USA

TSCA Status- Toluene Diisocyanate:
TSCA Action plan Chemicals
TSCA Section 12(b) Export Notification
TSCA Section 4(e) testing list
TSCA Section 5 (a)(2), SNUR
TSCA Section 8(a), Chemical data reporting
TSCA Section 8(b), Inventory
TSCA Section 8(d), Health and Safety reporting

SARA Title III :
Sec. 313 Toluene diisocyanate (TDI), 0.1% de minimis
CERCLA RQ Ethyl acetate - 5000 lbs (2270 kg) RQ; Toluene diisocyanate (TDI) 100 lbs (45.4kg)

Clean Air Act :
Ethyl acetate: VOC's
Toluene Diisocyanate:
Accidental Release Prevention – Toxic substances: 10000 lb threshold
HON Rule SOCMI Chemicals
VOC's

State:
California Prop. 65 – Toluene diisocyanate Carcinogen
Right-to-know lists in Massachusetts, New Jersey, Pennsylvania - Ethyl acetate & Toluene Diisocyanate

Canada

NSNR Status:
Substances are listed on the on the DSL.

NPRI:
Toluene Diisocyanate Part 1 substance

Canadian Environmental Protection Act:
Toluene Diisocyanate Schedule 1 – list of toxic substances.

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15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture (continued):

Mexico

Pollutant Release and Transfer Register:

Reporting Emissions Threshold Quantity 100 kg/year Toluene Diisocyanate

European Inventories:

Substances are listed on EC Inventories.

International Inventories:

Australia: Substances are listed on the Inventory of Chemical Substances (AICS).

China: Substances are present on the Chemical Inventory (IECSC).

Japan: Substances are present on the inventory Existing and New Chemical Substances (ENCS).

Korea: Substances are present on the inventory - Existing and Evaluated Chemical Substances.

Mexico: Substances are present on the inventory (INSQ).

New Zealand: Substances are present on the Chemical Inventory (NZIoC).

Philippines: Substances are present on the Inventory of Chemicals and Chemical Substances (PICCS).

Taiwan: Substances are present on the Chemical Inventory (TCSI).

Vietnam: Substances are present on the National Inventory of Chemicals (NCI).

Section 16: Other Information

Revision date:

April 18, 2023

Revision summary:

Scheduled review, no changes

References and sources for data:

CCOHS, Cheminfo Profile for Toluene diisocyanate
IARC monographs on the evaluation of carcinogenic risks to humans. Vol. 71
Registration dossier for TDI mixed isomers according to REGULATION (EC) No 1907/2006
RTECS, Registry of Toxic Effects of Chemical Substances

Legend to abbreviations:

ACGIH® – American Conference of Governmental Industrial Hygienists
AIHA – American Industrial Hygiene Association
ERPG – Emergency Response Planning Guidelines
GHS- Globally Harmonized System for Classification and Labeling.
IDLH – Immediately Dangerous to Life or Health
LD50- Median lethal dose; the dose causing 50 % lethality
NIOSH-National Institute for Occupational Safety and Health
OEL– Occupational exposure limit
OSHA - Occupational Safety and Health Administration
PEL – Permissible Exposure Limit
TWA – Time weighted average
TLV® - Threshold Limit Value
WHMIS – Workplace Hazardous Materials Information System.

Supplier Note:

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.