Material Safety Data Sheet(MSDS)

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

CAS NUMBER: 26471-62-5
RTECS NUMBER:
SUBSTANCE: TOLUENE DIISOCYANATE (MIXED ISOMERS)
TRADE NAMES/SYNONYMS: KONNATE T-80
BENZENE, 1,3-DIISOCYANATOMETHYL-; 1,3-DIISOCYANATOMETHYLBENZENE; ISOCYANIC ACID, METHYL-M-PHENYLENE ESTER;
METHYL-M-PHENYLENE ESTER ISOCYANIC ACID; DIISOCYANATOTOLUENE; METHYLPHENYLENE ISOCYANATE; TDI; TDI 80/20; TOLUENE DIISOCYANATE; TOLYLENE DIISOCYANATE; TOLYLENE ISOCYANATE; UN 2078; RCRA U223;
STCC 4921575; C9H6N2O2; OHS23602
CHEMICAL FAMILY:
Aromatic
Isocyanate

Supplier name : HENAN GP CHEMICALS CO.,LTD
ADD : No.122 huayuan Road,Zhengzhou, Henan 450000,China
TEL : 86-371-55081107 55081109
FAX : 86-371-86001091

SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS

COMPONENT: TOLUENE-2,4-DIISOCYANATE
CAS NUMBER: 584-84-9
PERCENTAGE: 80
COMPONENT : TOLUENE-2,6-DIISOCYANATE
CAS NUMBER: 91-08-7
PERCENTAGE: 20
OTHER CONTAMINANTS: NONE.

SECTION 3 - HAZARDS IDENTIFICATION

NFPA RATINGS (SCALE 0-4): HEALTH=3 FIRE=1 REACTIVITY=1
EMERGENCY OVERVIEW:
Clear, colorless to pale yellow liquid with a sweet, fruity, pungent odor.
Maybe fatal if inhaled. Suspect cancer hazard (contains material which can cause cancer in animals). Risk of cancer depends on duration and level of contact. Causes respiratory tract burns. Causes severe burns to mucous membranes. Causes skin and eye irritation, possibly severe. May cause allergic reaction.
May react with water.
Poison. Do not breathe vapor or mist. Do not get in eyes, on skin, or on

clothing. Do not allow water to get in container. Avoid repeated or

prolonged contact. Keep container tightly closed. Wash thoroughly after handling. Use only with adequate ventilation.

POTENTIAL HEALTH EFFECTS:

INHALATION:

SHORT TERM EFFECTS: Maybe fatal if inhaled. May cause burns. May cause allergic reactions. Additional effects may include nausea, vomiting, stomach pain, asthma, headache, drunkenness, numbness and lung damage.

LONG TERM EFFECTS: In addition to effects from short term exposure, fever, bloody spit, chest pain, difficulty breathing, drowsiness and bluish skin color may occur.

SKIN CONTACT:

SHORT TERM EFFECTS: May cause irritation, possibly severe. May cause allergic reactions. May cause effects as reported in short term inhalation. Additional effects may include blisters.

LONG TERM EFFECTS: Same effects as short term exposure.

EYE CONTACT:

SHORT TERM EFFECTS: May cause irritation, possibly severe. Additional effects may include tearing, blurred vision, intolerance of the eyes to light and glaucoma.

LONG TERM EFFECTS: May cause effects as reported in short term exposure.

INGESTION:

SHORT TERM EFFECTS: May cause burns. Additional effects may include sore throat, diarrhea and stomach pain.

LONG TERM EFFECTS: May cause cancer.

ADDITIONAL DATA: Drinking alcohol may worsen the effects.

CARCINOGEN STATUS:

OSHA: N

NTP: Y

IARC: Y

SECTION 4 - FIRST AID MEASURES

INHALATION:

FIRST AID- Remove from exposure area to fresh air immediately. Perform artificial respiration if necessary. Maintain airway, blood pressure and respiration. Keep warm and at rest. Treat symptomatically and supportively. Get medical attention immediately. Qualified medical personnel should consider administering oxygen.

SKIN CONTACT:

FIRST AID- Remove contaminated clothing and shoes immediately. Wash with soap or mild detergent and large amounts of water until no evidence of chemical remains (at least 15-20 minutes). If burns occur, proceed with the following: Cover affected area securely with sterile, dry, loose-fitting dressing. Treat symptomatically and supportively. Get medical attention immediately.

EYE CONTACT:

FIRST AID- Wash eyes immediately with large amounts of water, occasionally lifting upper and lower lids, until no evidence of chemical remains (at least 15-20 minutes). Continue irrigating with normal saline until the pH has returned to normal (30-60 minutes). Cover with sterile bandages. Get medical attention immediately.

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INGESTION:

FIRST AID- If the person is conscious and not convulsing, induce emesis by giving syrup of ipecac followed by water. (If vomiting occurs keep the head below the hips to prevent aspiration). Repeat in 20 minutes if not effective initially. Give activated charcoal. Inpatients with depressed respiration or if emesis is not produced, perform gastric lavage cautiously (Dreisbach, Handbook of Poisoning, 12th Ed.). Treat symptomatically and supportively. Gastric lavage should be performed by qualified medical personnel. Get medical attention immediately.

NOTE TO PHYSICIAN

ANTIDOTE:

No specific antidote. Treat symptomatically and supportively.

SECTION 5 - FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARD:

Slight fire hazard when exposed to heat or flame.

Vapor-air mixtures are explosive above flashpoint.

EXTINGUISHING MEDIA:

Dry chemical, carbon dioxide, water spray or regular foam (1993 Emergency Response Guidebook, RSPA P 5800.6).
For larger fires, use water spray, fog or regular foam

(1993 Emergency Response Guidebook, RSPA P 5800.6).

FIREFIGHTING:

Move container from fire area if you can do it without risk. Cool container with water using unmanned device until well after fire is out. Fight fire from maximum distance. Stay away from ends of tanks. Dike fire-control water for later disposal; do not scatter material. (1993 Emergency Response Guidebook, RSPA P 5800.6, Guide Page 57).

Extinguish only if flow can be stopped. Use flooding amounts of water as a fog; solid streams maybe ineffective. Cool containers with flooding amounts of water from as far a distance as possible. Avoid breathing poisonous vapors, keep upwind.

FLASH POINT: 261 ℉ (127 ℃) (CC)

LOWER FLAMMABLE LIMIT: 0.9% @ 118 ℃

UPPER FLAMMABLE LIMIT: 9.5% @ 150 ℃

AUTOIGNITION: 531 ℉ (277 ℃)

FLAMMABILITY CLASS(OSHA): IIIB

HAZARDOUS COMBUSTION PRODUCTS:

Thermal decomposition products may include highly toxic hydrogen cyanide, and toxic and hazardous oxides of carbon and nitrogen.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

OCCUPATIONAL SPILL:

Shut off ignition sources. Do not touch spilled material. Stop leak if you can do it without risk. Use water spray to reduce vapors. For small spills, take up with sand or other absorbent material and place into containers for OHS23602 later disposal. For small dry spills, with clean shovel place material into clean, dry containers and cover. Move containers from spill area. For larger spills, dike far ahead of spill for later disposal. No smoking, flames or flares in hazard area! Keep unnecessary people away. Isolate hazard area and deny entry. Ventilate closed spaces before entering.

Reportable Quantity (RQ): 100 pounds

The Superfund Amendments and Reauthorization Act (SARA) Section 304 requires that a release equal to or greater than thereportable quantity for this substance be immediately reported to the local emergency planning committee and the state emergency response commission (40 CFR 355.40). If the release of this substance is reportable under CERCLA Section 103, the National Response Center must be notified immediately at (800) 424-8802 or (202) 426-2675 in the metropolitan Washington, D.C. area (40 CFR 302.6).

WATER SPILL:

The California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) prohibits contaminating any known source of drinking water with substances known to cause cancer and/or reproductive toxicity.

SECTION 7 - HANDLING and STORAGE

Observe all federal, state and local regulations when storing this substance. Protect against physical damage. Store in a cool, dry, well ventilated location, away from areas where the fire hazard maybe acute. Outside or detached storage is preferred. If stored in tanks, it should be blanketed with an inert gas such as nitrogen or with dry air. Separate from oxidizing materials (NFPA 49, Hazardous Chemicals Data, 1975).

Threshold Planning Quantity (TPQ):

The Superfund Amendments and Reauthorization Act (SARA) Section 302 requires that each facility where any extremely hazardous substance is present in a quantity equal to or greater than the TPQ established for that substance notify the state emergency response commission for the state in which it is located. Section 303 of SARA requires these facilities to participate in local emergency response planning (40 CFR 355.30).

Store away from incompatible substances.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS:

TOLUENE-2,4-DIISOCYANATE:

0.005 ppm (0.04 mg/m3) OSHA TWA; 0.02 ppm (0.14 mg/m3) OSHA STEL

0.005 ppm (0.04 mg/m3) ACGIH TWA; 0.02 ppm (0.14 mg/m3) ACGIH STEL
0.01 ppm (0.07 mg/m3) DFG MAK TWA (sensitization);

0.02 ppm (0.14 mg/m3) DFG MAK 5 minute peak, momentary value, 8 times/shift

Measurement method: Coated glass wool; methanol; high-pressure liquid chromatography with ultraviolet detection; (NIOSH III # 2535).

500 pounds SARA Section 302 Threshold Planning Quantity

100 pounds SARA Section 304 Reportable Quantity

100 pounds CERCLA Section 103 Reportable Quantity

Subject to SARA Section 313 Annual Toxic Release Reporting
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Subject to California Proposition 65 cancer and/or reproductive toxicity warning and release requirements- (October 1, 1989)

TOLUENE-2,6-DIISOCYANATE:

35 ug/m3 NIOSH recommended 10 hour TWA

140 ug/m3 NIOSH recommended 10 minute ceiling

0.01 ppm (0.07 mg/m3) DFG MAK TWA (sensitization);

0.02 ppm (0.14 mg/m3) DFG MAK 5 minute peak, momentary value, 8 times/shift

100 pounds SARA Section 302 Threshold Planning Quantity

100 pounds SARA Section 304 Reportable Quantity

100 pounds CERCLA Section 103 Reportable Quantity

Subject to SARA sections 313 Annual Toxic Chemical Release Reporting
Subject to California Proposition 65 cancer and/or reproductive toxicity warning and release requirements- (October 1, 1989)

TOLUENE DIISOCYANATE (MIXED ISOMERS):

100 pounds CERCLA Section 103 Reportable Quantity

Subject to SARA Section 313 Annual Toxic Chemical Release Reporting
Subject to California Proposition 65 cancer and/or reproductive toxicity warning and release requirements- (October 1, 1989)

**OSHA revoked the final rule limits of January 19, 1989 in response to the 11th Circuit Court of Appeals decision (AFL-CIO v. OSHA) effective

June 30, 1993. See 29 CFR 1910.1000 (58 FR 35338)**

VENTILATION:

Process enclosure recommended to meet published exposure limits.

EYE PROTECTION:

Employee must wear splash-proof or dust-resistant safety goggles and a faceshield to prevent contact with this substance.

Emergency wash facilities:

Where there is any possibility that an employee's eyes and/or skin maybe

exposed to this substance, the employer should provide an eye wash fountain and quick drench shower within the immediate work area for emergency use.

CLOTHING:

Employee must wear appropriate protective (impervious) clothing and equipment to prevent any possibility of skin contact with this substance.

GLOVES:

Employee must wear appropriate protective gloves to prevent contact with this substance.

RESPIRATOR:

The following respirators and maximum use concentrations are recommendations by the U.S. Department of Health and Human Services, NIOSH Pocket Guide to Chemical Hazards; NIOSH criteria documents or by the U.S. Department of Labor, 29 CFR 1910 Subpart Z.

The specific respirator selected must be based on contamination levels found in the workplace, must not exceed the working limits of the respirator and be jointly approved by the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration (NIOSH-MSHA).

TOLUENE-2,4-DIISOCYANATE:

At any detectable concentration:
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Any 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 apressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.

Escape- Any air-purifying full facepiece respirator (gas mask) with a chin-style, front- or back-mounted organic vapor canister.

Any appropriate escape-type, self-contained breathing apparatus.

FOR FIREFIGHTING AND OTHER IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONDITIONS:

Any self-contained breathing apparatus that has a full facepiece and is operated in apressure-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 breathing apparatus operated in pressure-demand or other positive-pressure mode.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

DESCRIPTION: Clear, colorless to pale yellow liquid with a sweet, fruity, pungent odor.

MOLECULAR WEIGHT: 174.16

MOLECULAR FORMULA: $C_9H_6N_20_2$

BOILING POINT: 484 ℉ (251 ℃)

FREEZING POINT: 11.5-13.5 ℃

VAPOR PRESSURE: 0.03 mmHg @ 25 ℃

VAPOR DENSITY: 6.0

SPECIFIC GRAVITY: 1.22 @ 25 ℃

WATER SOLUBILITY: reacts

PH: no data available

ODOR THRESHOLD: 0.05-0.4 ppm

EVAPORATION RATE: no data available

SOLVENT SOLUBILITY: Soluble in aromatic hydrocarbons, nitrobenzene, alcohol, acetone, ethers, esters, kerosene, halogenated hydrocarbons.

Saturation vapor concentration is approximately 40 ppm @ 25 ℃.

SECTION 10 - STABILITY AND REACTIVITY

REACTIVITY:

TOLUENE DIISOCYANATE:

Reacts exothermically with water yielding carbon dioxide and an organic base. May darken on exposure to sunlight.

CONDITIONS TO AVOID:

Maybe ignited by heat, sparks or flames. Container may explode in heat of fire. Vapor explosion and poison hazard indoors, outdoors or in sewers.

INCOMPATIBILITIES:

TOLUENE DIISOCYANATE:

ACIDS: Incompataible.
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ACYL CHLORIDES: Vigorous and exothermic polymerization possible.
ALCOHOLS: Violent reaction.

ALUMINUM: Corrosion possible.
AMINES: Violent reaction.
AMINES (TERTIARY): Vigorous and exothermic polymerization possible.

AMMONIA: Incompatible.
ANILINE: Incompatible.

BASES (STRONG): Vigorous and exothermic polymerization possible.
COPPER AND COPPER ALLOYS: Corrosion possible.

HYDROGEN (ACTIVE): Possible violent reaction.
METALS: Incompatible.

OXIDIZERS (STRONG): Fire and explosion hazard.

PLASTIC, RUBBERS, AND COATINGS: May attack.
POLYOLS: Incompatible.

POLYURETHANE: Incompatible.

SURFACE ACTIVE AGENTS: Incompatible.

ZINC AND ZINC ALLOYS: Corrosion possible.
HAZARDOUS DECOMPOSITION:

Thermal decomposition products may include highly toxic hydrogen cyanide, and toxic and hazardous oxides of carbon and nitrogen.

POLYMERIZATION:

TOLUENE DIISOCYANATE:

Slow, non-hazardous polymerization occurs above 113 ℉ (45 ℃).

SECTION 11 - TOXICOLOGICAL INFORMATION

TOLUENE DIISOCYANATE (MIXED ISOMERS):
IRRITATION DATA: 500 mg open skin-rabbit severe.

TOXICITY DATA: 9700 ppb/4 hours inhalation-mouse LC50; 11 ppm/4 hours inhalation-rabbit LC50; 12700 ppb/4 hours inhalation-guinea pig LC50;

>10 gm/kg skin-rabbit LD50; 4130 mg/kg oral-rat LD50; 1950 mg/kg oral-mouse LD50; mutagenic data (RTECS); tumorigenic data (RTECS).

CARCINOGEN STATUS: Anticipated Human Carcinogen (NTP); Human Inadequate

Evidence, Animal Sufficient Evidence (IARC-Group 3). Gavage administration of a commercial mixture of 2,4-toluene diisocyanate and 2,6-toluene diisocyanate was carcinogenic to rats, causing subcutaneous fibromas and fibrosarcomas (combined) in males and females, pancreatic acinar cell adenomas in males, and pancreatic islet cell adenomas, neoplastic nodules of the liver and mammary gland fibroadenomas in females. This mixture was also carcinogenic to female mice, causing hemangiomas or hemangiosarcomas (combined) and hepatocellular adenomas. It was not carcinogenic to male mice.

LOCAL EFFECTS: Corrosive- inhalation, skin, eye and ingestion.

ACUTE TOXICITY LEVEL: Highly toxic by inhalation, moderately toxic by ingestion; slightly toxic by dermal absorption.

TARGET EFFECTS: Sensitizer- respiratory, dermal. Poisoning may affectthe respiratory and central nervous systems.

AT INCREASED RISK FROM EXPOSURE: Persons with hay fever, bronchial asthma and chronic bronchitis.

ADDITIONAL DATA: 2,6-toluene diisocyanate has been shown to be 60 times more effective than 2,4-toluene diisocyanate in inhibiting human serum cholinesterase. Alcohol may enhance the toxic effects.

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HEALTH EFFECTS

INHALATION:

TOLUENE DIISOCYANATE:

CORROSIVE/SENSITIZER/HIGHLY TOXIC.

2.5 ppm Immediately Dangerous to Life or Health.

ACUTE EXPOSURE- Low concentrations may produce nasal and throat irritation, with a choking sensation, nasal congestion and increased secretion. Above 0.5 ppm, bronchitis, constriction of the chest, and severe bronchospasm may occur. Pneumonitis, headache, nausea, vomiting, and abdominal pain have also been reported. Pulmonary edema leading to lung damage is possible. Symptoms of respiratory irritation maybe delayed for 4-8 hours, and can persist for 3-7 days. Neurological effects including numbness, insomnia, intermittent shaking, drunkenness, euphoria, ataxia, unconsciousness, and residual effects of poor memory, personality changes, irritability, and depression have been reported from extreme exposure. Rarely, liver, kidney, blood, and gastrointestinal effects have been reported. Pulmonary sensitization resulting in asthmatic reactions may occur in previously exposed persons. The lethal dose reported in rats and mice was 14 ppm/4 hours and 9700 ppb/4 hours for toluene-2,4-diisocyanate and the mixture of the toluene-2,4-diisocyanate and toluene-2,6-diisocyanate, respectively.

CHRONIC EXPOSURE- Prolonged or repeated exposure may cause respiratory distress, dry painful cough, chest pain, scant sputum which maybe blood streaked, fever, cyanosis, sleepiness, fatigue, thrombocytopenicpurpura, chronic lung disease, and immunotoxicologic reactions. Respiratory sensitization with symptoms of cough, wheezing, tightness or congestion in the chest, and shortness of breath may occur. Sensitized persons may have a severe, possibly fatal, asthmatic reaction. Prolonged exposure to levels less than 0.02-0.003 ppm may result in a decrease in pulmonary function. Exposed workers have shown decreased red cell cholinesterase

activity, slightly increased serum cholinesterase activity, and increased incidence of influenza. Changes in sense of smell have been reported. Prolonged animal exposure resulted in chronic or necrotic rhinitis, pneumonitis, tracheitis, and bronchitis.

SKIN CONTACT:

TOLUENE DIISOCYANATE:

CORROSIVE/SENSITIZER.

ACUTE EXPOSURE- May cause severe irritation with redness, pain, swelling, blistering and burns. Maybe absorbed through the skin to cause systemic effects as detailed in acute inhalation.

CHRONIC EXPOSURE- Effects depend on concentration and duration of exposure. Repeated or prolonged contact with corrosive substances may result in dermatitis or effects similar to acute exposure. Repeated or prolonged contact may cause sensitization dermatitis.

EYE CONTACT:

TOLUENE DIISOCYANATE:

CORROSIVE.

ACUTE EXPOSURE- Vapors or mist may cause severe irritation with redness, pain, lacrimation, conjunctivitis, swelling of the eyelids, blurred vision, and burns. Concentrations of 0.05 to 0.1 ppm may cause irritation in some workers while concentrations of 0.5 ppm cause irritation in all workers. Keratitis, severe iridocyclitis, secondary glaucoma, blepharospasm and photophobia have been reported. Corneal opacities with damage to corneal epithelium may occur. Damage maybe permanent if untreated. High vapor levels can cause solid particles to form in eye fluid resulting in mechanical irritation hours after exposure.

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CHRONIC EXPOSURE- Effects depend on concentration and duration of exposure. Repeated or prolonged contact with corrosive substances may result in conjunctivitis or effects as detailed in acute exposure.

INGESTION:

TOLUENE DIISOCYANATE:

CORROSIVE/CARCINOGEN.

ACUTE EXPOSURE- The corrosive action may cause severe irritation, sore throat, abdominal pain, and diarrhea.

CHRONIC EXPOSURE- In rats, a dose related increase of rhinitis of the nasal cavity with lesions characterized by squamousmetaplasia and hyperplasia of the epithelium, variably accompanied by leukocytic infiltration in the lamina propria and exudate in the lumen was observed. In mice and rats administered 30-240 mg/kg in corn oil by gavage for 2 years, an increase in hemangiomas, hemangiosarcomas, adenomas, papillary adenomas, islet cell adenomas, acinar cell adenomas of the pancreas, liver tumors, subcutaneous and percutaneous fibromas, fibroadenomas and fibrosarcomas, mammary gland fibroadenomas, and cystadenomas were reported.

SECTION 12 - ECOLOGICAL INFORMATION

ENVIRONMENTAL IMPACT RATING (0-4): no data available
ACUTE AQUATIC TOXICITY: no data available
DEGRADABILITY: no data available
LOG BIOCONCENTRATION FACTOR (BCF): no data available
LOG OCTANOL/WATER PARTITION COEFFICIENT: no data available

SECTION 13 - DISPOSAL CONSIDERATIONS

Observe all federal, state and local regulations when disposing of this substance.
Disposal must be in accordance with standards applicable to generators of hazardous waste, 40CFR 262. EPA Hazardous Waste Number U223.
US EPA RCRA Hazardous Waste Number: RCRA U223

SECTION 14 - TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION SHIPPING NAME-ID NUMBER, 49 CFR 172.101:
Toluene diisocyanate-UN 2078
U.S. DEPARTMENT OF TRANSPORTATION HAZARD CLASS OR DIVISION, 49 CFR 172.101:
6.1 - Poisonous materials
U.S. DEPARTMENT OF TRANSPORTATION PACKING GROUP, 49 CFR 172.101:
PG II
U.S. DEPARTMENT OF TRANSPORTATION LABELING REQUIREMENTS, 49 CFR 172.101
AND SUBPART E:
Poison
OHS23602
U.S. DEPARTMENT OF TRANSPORTATION PACKAGING AUTHORIZATIONS:
EXCEPTIONS : None
NON-BULK PACKAGING: 49 CFR 173.202
BULK PACKAGING: 49 CFR 173.243
U.S. DEPARTMENT OF TRANSPORTATION QUANTITY LIMITATIONS 49 CFR 172.101:
PASSENGER AIRCRAFT OR RAILCAR: 5 L
CARGO AIRCRAFT ONLY: 60 L

SECTION 15 - REGULATORY INFORMATION

TSCA INVENTORY STATUS: Y
CERCLA SECTION 103 (40CFR302.4): Y

TOLUENE-2,4-DIISOCYANATE	100	pounds RQ
TOLUENE-2,6-DIISOCYANATE	100	pounds RQ
TOLUENE DIISOCYANATE (MIXED ISOMERS)	100	pounds RQ

SARA SECTION 302 (40CFR355.30): Y

TOLUENE-2,4-DIISOCYANATE	500 pounds TPQ
TOLUENE-2,6-DIISOCYANATE	100 pounds TPQ

SARA SECTION 304 (40CFR355.40): Y

TOLUENE-2,4-DIISOCYANATE	100 pounds RQ
TOLUENE-2,6-DIISOCYANATE	100 pounds RQ

SARA SECTION 313 (40CFR372.65): Y
TOLUENE-2,4-DIISOCYANATE
TOLUENE DIISOCYANATE (MIXED ISOMERS)
OSHA PROCESS SAFETY (29CFR1910.119): N
CALIFORNIA PROPOSITION 65: Y
TOLUENE-2,4-DIISOCYANATE
TOLUENE-2,6-DIISOCYANATE
TOLUENE DIISOCYANATE (MIXED ISOMERS)
SARA HAZARD CATEGORIES, SARA SECTIONS 311/312 (40 CFR 370.21)
ACUTE HAZARD: Y
CHRONIC HAZARD: Y
FIRE HAZARD: N
REACTIVITY HAZARD: Y
SUDDEN RELEASE HAZARD: N

SECTION 16 - ADDITIONAL INFORMATION

References ： 1. Safety Management for Chemicals at Woking Spot
2. Safety Handbook for Hazardous Goods
3. All-Round Book for Safety Technology Hazardous Chemicals
4. Register Regulation for Hazardous Chemicals

Writing Date： March15, 2015
Writing Orginization： Henan GP chemicals Co.,Ltd
Revision date ：March15,2023

Others：
The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

This information is based upon technical information believed to be reliable. It is subject to revision as additional knowledge and experience is gained.

End of MSDS