

COSMONATE T-80SDS Number P105003E
Version 1.0

Revision Date 2014/01/22

Print Date 2014/01/22

1. PRODUCT AND COMPANY IDENTIFICATION**Product information**

Trade name : COSMONATE T-80

Company/Undertaking Identification

Company : Mitsui Chemicals, Inc.
Street address : Shiodome City Center, 1-5-2, Higashi-Shimbashi, Minato-ku,
Tokyo, 105-7117, Japan
Responsible Department : Polyurethane Division
Telephone : +81-3-6253-4120
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SDS Number : P105003E

2. HAZARDS IDENTIFICATION**GHS Classification**

Acute toxicity (Inhalation) : Category 1
Skin irritation : Category 2
Eye irritation : Category 2A
Respiratory sensitization : Category 1
Skin sensitization : Category 1
Specific target organ toxicity - single exposure : Category 3 (Respiratory tract irritation)
Acute aquatic toxicity : Category 3

*what does not have statement in the above are: not classified, no classification or classification not possible.

GHS Label element

Pictogram or Symbol :



Signal word : Danger

Hazard statements : Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
Fatal if inhaled.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause respiratory irritation.
Harmful to aquatic life.

Precautionary statements : **Prevention:**
Obtain special instructions before use, and DO NOT handle until all safety precautions have been read and understood.
Use only outdoors or in a well-ventilated area and DO NOT breathe dust/ fume/gas/mist/vapours/spray.
Contaminated work clothing should not be allowed out of the workplace.
Use personal protective equipment; protective helmet/eye protection/ face protection/respirator/protective gloves/protective clothing/safety shoes/protective boots as

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required.

Wash hands and face thoroughly after handling.

Avoid release to the environment.

Response:

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get immediate medical advice/attention.

IF ON SKIN or HAIR: Immediately remove contaminated clothing. Wash skin with soap and water/shower. If skin irritation or rash occurs, or you feel unwell: Get medical advice/attention.

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 advice/attention.

IF exposed or concerned, or if you feel unwell: Get medical advice/ attention.

Storage:

Keep container tightly closed. Store in well ventilated area.

Store locked up.

Disposal:

Dispose of contents/container in accordance with local/regional/ international regulations.

Do not reuse the container for any other purpose. Dispose of in accordance with applicable laws and regulations.

Other hazards which do not
result in classification: Reacts with water emitting carbon dioxide gas, which may
pressurize closed containers causing them to rupture.**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Pure substance/mixture : Substance

Chemical Name (Synonyms)	CAS-No.	Concentration
Tolylene diisocyanate (TDI)	26471-62-5	>=98%
2,4-Tolylene diisocyanate (contained in TDI)	584-84-9	75 - 85%
2,6-Tolylene diisocyanate (contained in TDI)	91-08-7	15 - 25%

4. FIRST AID MEASURES

If inhaled

: Remove to fresh air.
If vomiting, turn the face sideways to avoid asphyxiation.
If not breathing, give artificial respiration.
Keep the affected person warm and at rest. Get medical
attention immediately.

In case of skin contact

: Immediately remove contaminated clothing and shoes.
Flush skin with large amounts of water, clean off with soap and
water.
Get medical attention if symptoms develop.

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In case of eye contact	: Get immediate medical advice/ attention. Immediately flush eyes with plenty of water for several minutes. Part eyelids with fingers to assure complete flushing. Check for and remove contact lenses if easily possible.
If swallowed	: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Keep the affected person warm and at rest. Get medical attention immediately.
Protection of first-aiders	: Wear appropriate personal protective equipment such as protective gloves, protective clothing, eye protection, face protection, etc.
Notes to physician	: Treat symptomatically.

5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Water mist, Foam, Dry chemical, Carbon dioxide (CO ₂), Dry sand
Unsuitable extinguishing media	: Water jet
Specific hazards during firefighting	: Emits toxic fumes under fire conditions.
Special protective equipment for firefighters	: Respiratory and eye protection required for fire-fighting personnel. Full protective equipment and self-contained breathing apparatus (SCBA) should be used for all indoor fires and any significant outdoor fires.
Further information	: Remove all sources of ignition. Keep unnecessary and unprotected personnel away. Remove containers to safe place if possible. Fight fire from an upwind position. Keep surrounding areas cool by spraying water.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Wear appropriate personal protective equipment such as protective gloves, protective clothing, eye protection, face protection, etc. Keep unnecessary and unprotected personnel away. Keep upwind, evacuate downwind. Wear appropriate personal protective equipment as specified in Section 8. Evacuate immediate area. Warn personnel of health hazard.
Environmental precautions	: Do not flush into sewer, river, or any body of water. Do not let this chemical enter the environment. Warn and evacuate the neighborhood as necessary.

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- Methods and materials for containment and cleaning up : Absorb or cover with dry earth, sand or other non-combustible material and transfer to sealable containers.
Large spills: Dike far ahead of liquid spill for later disposal.
Stop leak if possible without personal risk.
Neutralize spill area. Absorb and/or contain spill with inert material. Flush spill area with water spray.
Example of neutralizer:
Water/sodium carbonate/liquid detergent =
90 - 95 / 5 - 10 / 0.2 - 2 (wt%)

7. HANDLING AND STORAGE**Handling**

- Technical measures : Refer to the "Engineering measures" in Section 8.
Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Wear appropriate personal protective equipment.
Provide hand and eye wash station near work area. Wash thoroughly after handling.
Use only in well-ventilated area. Keep away from heat, sparks, and flame.
Use explosion-proof electrical equipment and take precautions against build-up of electrostatic charges as necessary.
- Advice on safe handling : Do not handle until all safety precautions have been read and understood.
Prevent leak and spill. Avoid vapour formation.
Do not fall, drop, shock or drag the container.
Avoid contact with eyes, skin, and clothing. Avoid inhalation and ingestion.
Use only in well-ventilated area or outdoors.
- Avoidance of contact : Keep containers tightly closed in a dry, cool and well-ventilated place.
Keep away from heat, flame, and all sources of ignition.
Store in a segregated and approved area.
- Hygiene measures : Wash hands thoroughly after handling.
Do not eat, drink, or smoke when using this product.

Storage

- Conditions for safe storage : Store locked up.
The floor must be protected from water and impermeable.
The inventory location must be fire-resisting. Make the roof from nonflammable materials, and do not install the ceiling.
Install appropriate facilities for lighting/ventilating.
Materials to avoid: Amines, alcohols, water and other active hydrogen compounds, oxidizers, bases, etc.
- Suitable container and packaging materials for safe storage : Use UN approved containers or containers approved by local and national authorities.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Exposure Limit Values**

USA. ACGIH Threshold Limit Values (TLV) [2013]

Tolylene diisocyanate	: TWA	0.005 ppm
	: STEL	0.02 ppm

Engineering measures	: Provide safety shower and eye wash station near work area. Use closed system or local exhaust ventilation.
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Personal protective equipment

Respiratory protection	: Respirator with filter for organic vapour
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Hand protection	: Protective gloves
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Eye protection	: Safety glasses, Eye shield, Face shield
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Skin and body protection	: Protective suit, Safety helmet, Safety boots, Apron
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9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

Physical state	: liquid
Form	: viscous
Colour	: colourless
Odour	: pungent

Safety data

pH	: no data available
Melting point/range	: ca. 12 °C
Boiling point/boiling range	: 251 °C
Flash point	: 137 °C
	Test Method: Cleveland open cup
Auto-ignition temperature	: 850 °C
Lower explosion limit	: 0.9 %(V)
Upper explosion limit	: 9.5 %(V)
Vapour pressure	: 3.3 Pa (25 °C)
Specific gravity	: 1.22 (25 °C)
Water solubility	: no data available
Partition coefficient: n-octanol/water	: no data available
Thermal decomposition	: no data available

10. STABILITY AND REACTIVITY

Chemical stability	: Stable under normal conditions.
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Conditions to avoid	: Heat, moisture
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Incompatible materials	: Amines, alcohols, water and other active hydrogen compounds, oxidizers, bases, etc.
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Hazardous decomposition products	: Nitrogen oxides
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Hazardous reactions : Reacts with water emitting carbon dioxide gas, which may pressurize closed containers causing them to rupture.
Reacts with oxidizers, causing fire hazard.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : Not classified
Acute dermal toxicity : Not classified
Acute inhalation toxicity : Category 1
Acute toxicity estimate : 0.19 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method
Skin corrosion/irritation : Category 2
Serious eye damage/eye irritation : Category 2A
Sensitisation : Respiratory sensitisation: Category 1
Skin sensitisation: Category 1
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT - single exposure : Category 3 (Respiratory tract irritation)
STOT - repeated exposure : Not classified
Aspiration toxicity : Classification not possible

Components:**2,4-Tolylene diisocyanate :**

Acute oral toxicity : LD50 rat: 5840 mg/kg
Acute dermal toxicity : LD50 rabbit: 9401 mg/kg
Acute inhalation toxicity : LC50 rat: 0.19 mg/l
Exposure time: 4 h

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Acute toxicity
Acute aquatic toxicity : Category 3
Chronic toxicity
Chronic aquatic toxicity : Not classified

Components:**2,4-Tolylene diisocyanate :**

Acute toxicity
Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia pulex (Water flea)): 12.5 mg/l
Exposure time: 48 h

Bioaccumulative potential

Partition coefficient: : no data available
n-octanol/water

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Components:**2,4-Tolylene diisocyanate :**Partition coefficient: : log Pow: 0.21
n-octanol/water**Other adverse effects**

Hazardous to the ozone layer : Not classifiable

13. DISPOSAL CONSIDERATIONSWaste from residues : In accordance with local and national regulations.
Dispose of wastes in an approved waste disposal facility.Contaminated packaging : Dispose of contents/container in accordance with
local/regional/national/international regulations.
Empty the container completely before disposal.**14. TRANSPORT INFORMATION****International transport regulations****IATA**UN number : UN2078
Proper shipping name : Toluene diisocyanate
Class : 6.1
Packing group : II
Environmentally hazardous : no**IMDG**UN number : UN2078
Proper shipping name : TOLUENE DIISOCYANATE
Class : 6.1
Packing group : II
Marine pollutant : no**15. REGULATORY INFORMATION****Notification status**

Japan	ENCS:	On the inventory, or in compliance with the inventory.
United States	TSCA:	On the inventory, or in compliance with the inventory.
European Union	REACH:	Contact us for information.
Canada	DSL, NDSL:	All components of this product are on DSL.
Australia	AICS:	On the inventory, or in compliance with the inventory.
Korea	KECI:	On the inventory, or in compliance with the inventory.
China	IECSC:	On the inventory, or in compliance with the inventory.
New Zealand	NZIoC:	On the inventory, or in compliance with the inventory.
Philippine	PICCS:	Not in compliance with the inventory.

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16. OTHER INFORMATION

Sources of key data used to : In-house data
compile the Safety Data Information acquired by literature documentation
Sheet

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.