

Safety Data Sheet

1. Chemical product and company identification

Product name : Triethylene glycol dimethyl ether

Company information

Name of manufacturer : KANTO CHEMICAL CO., INC.
Address : 2-1, Nihonbashi, Muromachi 2-Chome, Chuo-Ku, Tokyo, 103-0022, JP
Name of section : Business Administration Department, Reagent Division
Telephone number : +81-3-6214-1090
Facsimile number : +81-3-3241-1047
Mail address : BC32@kanto.co.jp
Reference No : 40276
Recommended use : For research use only
Restrictions on use : Seek expert judgment when using the product for applications other than those recommended.

2. Hazards identification

GHS classification

Health hazards Reproductive toxicity Category 2

Hazard
pictograms



Signal word : Warning

Hazard statements : Suspected of damaging fertility or the unborn child

Precautionary statements

Prevention : Do not handle until all safety precautions have been read and understood.
Wear protective gloves/protective clothing/eye protection/face protection.

Response : IF exposed or concerned: Get medical advice/attention.

Storage : Store locked up.

Disposal : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

3. Composition/information on ingredients

Distinction of substance or mixture : Substance

Synonyms : 1,2-Bis(methoxyethoxy)ethane, Triglyme, DMTG



Chemical name	Concentration (%)	Formula	TSCA	EC-No.	CAS RN
Triethylene glycol dimethyl ether	> 97	C8H18O4	Listed	203-977-3	112-49-2

4. First aid measures

First aid measures

First-aid measures after inhalation	: Remove the victim to fresh air, and make him blow his nose and gargle.
First-aid measures after skin contact	: Wash the affected areas under running water.
First-aid measures after eye contact	: Wash the affected areas under running water for at least 15 minutes. If necessary, get medical treatment.
First-aid measures after ingestion	: Give the victim water or salt water and induce vomiting. If necessary, get medical attention.
Personal Protection in First Aid and Measures	: Rescuers should wear proper protective equipment like rubber gloves, goggles.

5. Fire fighting measures

Suitable extinguishing media	: Water, dry chemical powder, carbon dioxide, dry sand, foam
Unsuitable extinguishing media	: None
Firefighting instructions	: Move containers from fire area if it can be done without risk, if not possible, apply water from a safe distance to cool and protect surrounding area. Fight fire from windward. Dry chemical powder, carbon dioxide or dry sand should be used for small fires. Foam extinguisher is effective for a large scale fire.
Personal protection (Emergency response)	: Firefighters should wear protective equipment.

6. Accidental release measures

Personal Precautions, Protective Equipment and Emergency Procedures

General measures	: Wear proper protective equipment and avoid contact with skin and inhalation of vapor. Conduct operations from upwind and evacuate people downwind. Keep away personnel except for authorized ones from spillage area by stretching ropes.
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Environmental precautions

Environmental precautions	: Attention should be given to avoid discharge of spilled product into rivers and resulting environmental damage. When diluting spill with large amounts of water, discharge of untreated wastewater into the environment must be avoided.
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Methods and Equipment for Containment and Cleaning up

For containment	: Absorb spill with inert material (e.g, diatomaceous earth, sand) and flush spillage area with copious amounts of water.
Prevention Measures for Secondary Accidents	: Remove nearby sources of ignition and prepare extinguishing media.



7. Handling and storage

Handling

- Technical measures : Wear proper protective equipment to avoid contact with skin or inhalation of vapor.
Fire is prohibited.
Ventilate well at working places.
- Precautions for safe handling : Avoid formation of vapor and aerosols.
Do not allow contact with oxidizing substances.

Storage

- Storage conditions : Store in a dark, cool place and tightly closed.
- Material used in packaging/containers : Glass, fluorine resin, stainless steel.

8. Exposure controls / Personal protection equipment

ACGIH TWA	Not established
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- Appropriate engineering controls : Use with an enclosed system or a local exhaust ventilation.

Protective equipment

- Respiratory protection : If necessary, wear chemical cartridge respirator with an organic vapor cartage
- Hand protection : Impervious protective gloves
- Eye protection : Safety goggles
- Skin and body protection : Protective clothing, protective boots

9. Physical and chemical properties

- Physical state : Liquid
- Color : Colorless - pale yellow
- Odor : Ethereal
- pH : No data available
- Melting point : -45 ° C
- Freezing point : No data available
- Boiling point : 216 ° C
- Flash point : 111 ° C (O.C.)
- Auto-ignition temperature : 190 ° C
- Decomposition temperature : No data available
- Flammability : Flammable
- Vapor pressure : 2.7 Pa (20°C)
- Relative density : No data available
- Density : 0.978 - 0.988 g/cm³ (20°C)
- Relative gas density : 6.14
- Solubility : Soluble in many kinds of organic solvents.
Water: 990 g/L (20°C)
- Partition coefficient n-octanol/water (log Pow) : -0.52 (20°C)
- Explosive limits (vol %) : No data available



Viscosity, kinematic : 2.2 mm²/s (20°C)
Particle characteristics : No data available

10. Stability and reactivity

Reactivity : May react with oxidizing substances.
Chemical stability : Stable under normal conditions. This substance can form explosive peroxides when exposed to air for extended periods of time.
Possibility of hazardous reactions : Stable under normal conditions of use.
Conditions to avoid : Light, heat.
Incompatible materials : Oxidizing substances.
Hazardous decomposition products : Carbon monoxide.

11. Toxicological information

Acute toxicity (oral) : No classification
rat LD50=5877 mg/kg
Acute toxicity (dermal) : Classification not possible
Acute toxicity (inhalation) : No classification (gas)
Classification not possible (vapor)
Classification not possible (dust, mist)
Skin corrosion/irritation : Classification not possible
Serious eye damage/irritation : Classification not possible
Respiratory sensitization : Classification not possible
Skin sensitization : Classification not possible
Germ cell mutagenicity : Classification not possible
Classification not possible due to lack of data. There are no in vivo data. As for in vitro, it was positive in a bacterial reverse mutation test, and negative in a chromosomal aberration test with cultured mammalian cells.
Carcinogenicity : Classification not possible
Reproductive toxicity : Suspected of damaging fertility or the unborn child
After repeated oral administration to male rats, reduction on testis size, a decrease in sperms or aspermatogenesis occurred, depressing sexual function. Furthermore, in tests in which mice and rats were orally dosed during the organogenesis period, an increased incidence of malformations was reported at the doses causing marked toxicity (weight gain depression) in maternal animals. From the above, it was classified in category 2.
STOT-single exposure : Classification not possible
STOT-repeated exposure : Classification not possible
In a 4-week oral administration test with rats, reduction in thymus weight was observed at the dose (converted guidance value: 83 mg/kg/day) within the guidance value range for category 2, but it was not accompanied by histopathological changes, not corresponding to findings to assign a category. Besides, in the test, at the dose (converted guidance value: 311 mg/kg/day) corresponding to "Not classified," effects on the testis (weight decrease, degeneration in the seminiferous epithelium, a decrease in sperms or no sperms) and atrophy of the thymus were observed. Therefore, it corresponds to "Not classified" in the oral route. However, because there is no toxicity information on the other routes, classification is not possible due to lack of data.
Aspiration hazard : Classification not possible



12. Ecological information

Ecotoxicity

Aquatic acute : Classification not possible
Aquatic chronic : Classification not possible

Persistence and degradability

No additional information available

Bioaccumulative potential

Low bioconcentration
log Pow : -0.52

Mobility in soil

No additional information available

Hazardous to the ozone layer

Ozone : Classification not possible

13. Disposal considerations

Ecological waste information : Burn in a chemical incinerator equipped with an afterburner and a scrubber. Or entrust approved waste disposal companies with the disposal.

Contaminated container and packaging : In case of disposal of empty bottles, dispose bottles after removing the content thoroughly.

14. Transport information

International Regulations

Transport by sea(IMDG)

UN-No. (IMDG) : Not applicable
Proper Shipping Name (IMDG) : Not applicable
Packing group (IMDG) : Not applicable
Transport hazard class(es) (IMDG) : Not applicable

Air transport(IATA)

UN-No. (IATA) : Not applicable
Proper Shipping Name (IATA) : Not applicable
Packing group (IATA) : Not applicable
Transport hazard class(es) (IATA) : Not applicable

Marine pollutant : Not applicable

15. Regulatory information

Regulatory information with regard to this substance in your country or region should be examined by your own responsibility.

16. Other information

Data sources : NITE Chemical Risk Information Platform (NITE-CHRIP), National Institute of Technology and Evaluation.
Handbook of 17524 Chemical Products, The Chemical Daily Co. (2024) .



ICSC Card (2009) .

The information contained herein is based on several references and the present state of our knowledge. However the SDS does not always cover all information about the product, handle the product carefully. The information is intended to ordinary usage, in case of particular handlings, conduct appropriate safety measurements. The information herein is only provision of information, and it does not represent a guarantee the properties of the product. The Safety Data Sheet (SDS) is prepared based on JIS Z7253.

