

Safety Data Sheet

According to GB/T 16483-2008 and GB/T 17519-2013

Triethylene glycol monobutyl ether

Version 1.0

Issue date: 09/07/2021

Revision date: 09/07/2021

SDS Record Number: CSSS-TCO-010-131836

Section 1 Chemical Product and Company Identification

Chemical name:	Triethylene glycol monobutyl ether
Additional identification:	Not available
Product code:	Not available
Identification of the product:	CAS# 143-22-6 EC# 205-592-6
Relevant identified uses of the substance and uses advised against	
Identified uses:	Triethylene glycol monobutyl ether is a high boiling point solvent with good performance.
Uses advised against:	Not available
Details of the supplier of the safety data sheet	
Name:	Jilin Yida Chemical Co. LTD
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Emergency telephone Number(24h):	0510-86609119

Section 2 Hazards Identification

Emergency Overview: Colorless liquid with a Faint odor. Containers may explode when heated. Oxides of carbon on combustion. May be harmful in contact with skin. Causes serious eye damage.

GHS Classification:

Physical hazards	Not classified	
Health hazards	Acute toxicity - dermal	Category 5
	Eye damage/irritation	Category 1
Environmental hazards	Not classified	

Label elements

Pictogram:



Signal Word(s):

Danger

Hazard Statement:

May be harmful in contact with skin
Causes serious eye damage

Precautionary statement

Prevention:

Wear eye protection/face protection.

Response:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER/doctor.

Storage:

Not applicable.

Disposal:

Not applicable.

Physical and chemical hazards:

Containers may explode when heated. Oxides of carbon on combustion.

Health Hazards:

May be harmful in contact with skin. Causes serious eye damage.

Environmental hazards:

The product has no obvious harm to the water environment.

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Other hazards:

This product has not been found to have other hazards which are outside the scope of GB30000.2-29.

Section 3 Composition Information on Ingredients

Substance/Mixture/Article: Substance

Ingredient(s):

Chemical Name	CAS No.	Concentration (%)
Triethylene glycol monobutyl ether	143-22-6	99%

Undisclosed ingredients include: 1) non-hazard ingredients, and 2) ingredients which are below the cut-off value required by Section 3.3 of GB / T 17519.

Section 4 First Aid Measures

In case of inhalation:

Remove to fresh air. Keep warm and at rest. Get medical attention if victim feels unwell.

In case of skin contact:

Remove contaminated clothing. Wash skin with soap and water. Get medical attention if skin cracking or redness occurs.

In case of eyes contact:

Immediately flush eye with large quantities of water for at least 20 minutes holding the eye open. Avoid contaminating unaffected eye. Get medical attention and show the product label.

In case of ingestion:

Wash out mouth with water. Do not induce vomiting. Keep patient warm and at rest. Give 240-300 ml water to drink (only if patient is conscious). Repeat if patient vomits. Get medical attention if patient is unwell. Get medical attention if a large quantity is ingested.

Most important symptoms and effects, both acute and delayed:

Causes serious eye damage.

To protect playing rescuer advice and the special hints to the doctor:

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

Indication of any immediate medical attention and special treatment needed:

Provide general supportive measures and treat symptomatically. In the event of shortness of breath, give oxygen. Keep the victim warm. Observe the patient. Symptoms may delay.

Section 5 Fire-fighting Measures

Extinguishing agent

Suitable extinguishing media:

Alcohol-resistant foam, dry chemical powder, carbon dioxide, water mist.

Unsuitable extinguishing media:

Water in a jet.

Special hazards:

Containers may explode when heated. Oxides of carbon on combustion.

Special fire fighting methods and special protective actions for fire-fighters:

Firefighters should wear self-contained breathing apparatus, and wear full body fire service and extinguish fire in the windward direction. Remove the container from the fire to empty place as far as possible. Cool the container exposed to the fire with water and vent the vapors. Isolate the accident area, prohibit access to unrelated persons. Contain and handle fire water to prevent environmental pollution.

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Section 6 Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:	Evacuate all non-essential personnel. Avoid eye and skin contact. Wear appropriate protective clothing. Ventilate area.
Environmental precautions:	Keep away from drains, water and soil. Advise authorities if spilled material has entered water courses or sewer or has contaminated soil or vegetation.
Methods and materials for containment and cleaning up:	Absorb or contain liquid with sand, earth or spill control material. Collect and place in a labelled sealable container for subsequent safe disposal. Flush contaminated area with plenty of water. Put leaking containers in a labelled drum or overdrum.
Precautions to prevent the occurrence of secondary hazards:	Clean up spills immediately to prevent leaks again.

Section 7 Handling and Storage

Safe handling

Local and general ventilation:	Provide adequate ventilation.
Safety instructions:	Operators should follow the procedure and use the personal protective equipment recommended by the SDS section 8.
Precautions:	Avoid contact with skin. Wear eye protection. Keep container tightly closed when not in use. Provide emergency eye washing and shower facilities.

Storage

Suitable storage conditions:	Storage area should be cool and dry. Keep away from direct sunlight. Store in a bunded area.
Incompatible materials:	Oxidizing agents.
Safe packaging materials:	Keep it in the original container. For containers use mild steel or stainless steel. Do not store in plastics or natural, butyl, polychloroprene or nitrile rubbers.

Section 8 Exposure Controls / Personal Protection

Occupational exposure limits:	According to GBZ2.1, the OELs of components are not established.
Biological limits:	No standard has been established.
Engineering controls:	Ensure adequate ventilation. Make sure the workplace is equipped with a safe place to shower, clean eyes and body, and place for safe care.
Personal protection equipment	
Respiratory protection:	Wear respiratory protection.
Hand protection:	Gloves made from butyl rubber, Neoprene rubber or nitrile rubber.
Eye protection:	Protective goggles with side-shields.
Skin and body protection:	Neoprene apron. Rubber boots.
Hygiene measures:	Avoid contact with eyes. Wash hands after handling. Do not eat and drink in the workplace.

Section 9 Physical and Chemical Properties

Appearance:	Colorless liquid
Odor:	Faint
Odor threshold:	No data available
Molecular formula:	C ₁₀ H ₂₂ O ₄

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Molecular weight:	206.28
Melting point/freezing point (°C):	-35.2 °C
Boiling point, initial boiling point (°C):	278 °C
Density:	ca. 989 kg/m ³ (20 °C)
Relative density(H₂O=1):	No data available
Vapor pressure (25°C) (kPa):	0.003 mm Hg
Partition coefficient (n-octanol/water):	log Pow: 0.51 (25 °C)
Solubility in water:	989 g/L (20 °C)
Solubility in organic solvents:	No data available
Flash point (°C):	131 °C
Auto-ignition temperature (°C):	202 °C
Flammability limit - lower (%):	No data available
Flammability limit - upper (%):	No data available
Decomposition temperature (°C):	No data available
Flammability (solid, gas):	No data available
Explosive properties	No data available
Explosive limit - lower (%):	No data available
Explosive limit - upper (%):	No data available
pH value:	No data available
Viscosity:	9.2 mm ² /s (25 °C)
Relative vapor density (air=1):	No data available
Relative evaporation rate (n-butyl acetate=1):	No data available
Surface tension:	61.2 mN/m (20 °C)

Section 10 Stability and Reactivity

Stability:	Material is stable under normal conditions. May form peroxides on prolonged exposure to air and light.
Possibility of hazardous reactions:	No dangerous reaction known under conditions of normal use.
Conditions to avoid:	Incompatible materials. High temperatures. Prolonged exposure to air/oxygen and light.
Incompatible materials:	Oxidizing agents.
Hazardous decomposition products:	Oxides of carbon.

Section 11 Toxicological Information

Acute toxicity

LD50(Oral, Rat):	5170 mg/kg bw
LD50(Dermal, Rabbit):	3540 mg/kg bw male
LC50(Inhalation, Rat):	Not available
Skin corrosion/Irritation:	Not classified
Serious eye damage/irritation:	Causes serious eye damage.
Respiratory or skin sensitization:	Not classified
Germ cell mutagenicity:	Not classified
Carcinogenicity:	Not classified
Reproductive toxicity:	Not classified
STOT- single exposure:	Not classified

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STOT-repeated exposure: Not classified
Aspiration hazard: Not classified

Section 12 Ecological Information

Ecotoxicity

LC50 (Fish, 96h) 2200 - 4600 mg/L

EC50 (Daphnia, 48h) > 500 mg/L

EC50 (Algae, 72h): 780 mg/L

Persistence and degradability: Readily biodegradable, but failing 10-day window.

Bioaccumulative potential: No data available

Mobility in soil: No data available

Section 13 Disposal Considerations

Residual waste Recycling as much as possible. If recycling is not possible, use incineration methods for disposal. Do not dispose of this product by means of discharge to the sewer.

Contaminated packaging Empty containers or pads may retain some product residue, so beware of label warnings even when empty containers. These materials and their containers must be disposed of in a safe manner. Empty containers should be returned to the manufacturer or sent to a national / local approved waste disposal site.

Local disposal regulations Waste disposal should refer to the relevant national and local laws and regulations, the waste chemicals for recycling, or packed in sealed containers, to a special waste disposal sites.

Section 14 Transport Information

UN Number: Not regulated

UN Proper shipping name: Not regulated

Transport hazard Class: Not regulated

Packaging group: Not regulated

Marine pollutant (yes/no): No

Transport special precautions:

- Grounding chains should be equipped with tank or car during transportation, hole plate can be set in the tank to prevent static electricity generated by shaking;
- Exhaust pipe of the vehicle which transports this product shall be equipped with fireproofing equipment, Do not handle with the machinery or tools which may produce spark easily;
- Do not package or transport with oxidant, food chemicals or others;
- Prevent from sunlight exposure, rain and heat during transportation, in summer, best to transport in the morning or evening;
- Keep away from fire, heat source and high temperature when stops on the way;
- Follow the route as prescribed during highway transportation, do not stay in residential areas and densely populated area;
- Prohibit humping in railway transportation;
- Transport vehicles should be equipped with corresponding fire equipment and spill contingency processing equipment.

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15. Regulatory Information

The following laws, regulations, rules and standards, provide corresponding provisions of the management of chemicals:

Name	Relevant Inventories	Listed Or Not
Measures On Safety Management Of Hazardous Chemicals	Inventory Of Hazardous Chemicals	Not listed
	The First Batch Of Key Regulatory List Of Hazardous Chemicals	Not listed
Measures On New Substance Environmental Management	The Inventory Of Existing Chemical Substance In China	Listed
Provisions On Environmental Management Of First Import And Export Of Toxic Chemicals	China Strictly Restricted List Of Import And Export Of Toxic Chemicals	Not listed

Section 16 Other Information

Indication of changes:

Version 1.0 Amended by GB/T16483 and GB/T 17519.

Abbreviations:

CAS: Chemical Abstracts Service

LC50: Lethal Concentration 50

EC50: Concentration for 50% of maximal effect

LD50: Lethal dose 50%

PC-TWA: time-weighted average allowable concentration, average allowable concentration in 8h working day, 40h work week.

PC-STEL: Short-Term Exposure Tolerance, the concentration allowed to be exposed in short-term (15 minutes).

IARC: International Agency for Research on Cancer

ACGIH: US Government Conference of Industrial Hygienists

ADR: European Agreement Concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Dangerous Goods

EINECS: European Inventory of Existing commercial Chemical Substances

IATA: International Air Transport Association

ICAO-TI: International Civil Aviation Organization The International Civil Aviation Covenant

Disclaimer:

The information in this Safety Data Sheet (SDS) applies only to the products specified and does not apply to mixtures containing this product with other substances, unless otherwise specified. This Safety Data Sheet (SDS) is based on information currently available in all its aspects and will not be held responsible for its long-term timeliness. This Safety Data Sheet (SDS) provides information about the safety of the product for the intended purpose only to appropriately trained personnel operating the product. Users of this SDS must make independent judgments on the suitability of this SDS for special conditions of use. Under special conditions of use, the SDS author will not be responsible for the damage caused by the use of this Safety Data Sheet (SDS). Each user of the product should read carefully the contents of this Safety Data Sheet (SDS) before proceeding. For more information to ensure correct evaluation, please contact the product supplier.

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