

# Design Report of Safety Data Sheet

正本/ORIGINAL

Report No.:	HGBZ2307NC82	
Inspection date:	2023/07/05	
Issue date:	2023/07/05	
Version:	V2.0.0.1	
防伪码: CTGI		
*Product Name:	Propylene glycol propyl ether	
*Applicant:	Yueyang Changde New Materials Co., Ltd.	
Supplier:	Yueyang Changde New Materials Co., Ltd.	
*Composition of the product:	Propylene glycol propyl ether(CAS: 1569-01-3): 99.9%	
Warranty of Design:	GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS (GHS) Ninth revised edition	
*Information materials:	HGBZ2307NC8《Application》、P113514《Declaration of consistency of components of the sample submitted for inspection》	
Design Result of SDS please see next page.		
Designer:		Auditor:
		Approver:
		
常州合规思远产品安全技术有限公司		
Changzhou Hegui Siyuan Products Safety Technology Service Co., Ltd.		
		

Notes: This SDS is valid before the implementation of the tenth revised edition GHS.

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1. According to the needs of issuing the report, the company requires the client to provide true and complete samples and data (see the report tape ★ for details). The Company will not bear any consequences caused by the wrong information provided by the Client. If the chemical information, authoritative database and relevant policy changes submitted by the client affect the conclusions of this report, this report will automatically become invalid. Unless otherwise specified, the data in this report are only responsible for the samples submitted for inspection, and the accuracy of sample composition information is the responsibility of the client. The hazard characteristics, transportation information and emergency measures of samples need to focus on the corresponding parts of this report.
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## Safety Data Sheet

# Propylene glycol propyl ether

Version : V2.0.0.1

Report No. : HGBZ2307NC82

Creation Date : 2023/07/05

Revision Date : 2023/07/05

\*According to GHS (Ninth Revised Edition)

## 1 Identification

### Product identifier

Product Name	Propylene glycol propyl ether
CAS No.	1569-01-3
EC No.	216-372-4
Molecular Formula	C <sub>6</sub> H <sub>14</sub> O <sub>2</sub>

### Recommended use of the product and restrictions on use

Relevant identified uses	Please consult manufacturer.
Uses advised against	Please consult manufacturer.

### Details of the supplier

Applicant Name	Yueyang Changde New Materials Co., Ltd.
Applicant Address	101, Changlian Branch Of Hunan Green Chemical Industry Park, Yunxi Street, Yunxi District, Yueyang City, Hunan Province
Applicant Post Code	414007
Applicant Telephone	86-730-8503617
Applicant Fax	86-730-8503621
Applicant E-mail	business@changdechem.com
Supplier Name	Yueyang Changde New Materials Co., Ltd.
Supplier Address	101, Changlian Branch Of Hunan Green Chemical Industry Park, Yunxi Street, Yunxi District, Yueyang City, Hunan Province
Supplier Post Code	414007
Supplier Telephone	86-730-8503617
Supplier Fax	86-730-8503621
Supplier E-mail	business@changdechem.com

### Emergency phone number

Emergency phone number	86-730-3062680
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## 2 Hazard(s) identification

### Hazard classification according to GHS

Flammable Liquids	Category 3
Serious Eye Damage/Irritation	Category 2

### GHS Label elements

Hazard pictograms	 
Signal word	<b>Warning</b>

### Hazard statements

H226	Flammable liquid and vapour
H319	Causes serious eye irritation

### Precautionary statements

#### Prevention

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof [electrical/ventilating/lighting] equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P264+P265	Wash hands and other parts of the body (if related) thoroughly after handling. Do not touch eyes.

#### Response

P337+P317	If eye irritation persists: Get medical help.
P370+P378	Small Fire : Dry chemical, CO2, water spray or alcohol-resistant foam; Large Fire : Water spray, fog or alcohol-resistant foam.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water [or shower].
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

#### Storage

P403+P235	Store in a well-ventilated place. Keep cool.
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#### Disposal

P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
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### Hazard description

#### Physical and chemical hazards

	Flammable liquids, its vapor and air mixture can form explosive mixture.
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#### Health hazards

Inhaled	Inhalation of the product may produce adverse health effects or irritation of the respiratory tract following discomfort.
Ingestion	Accidental ingestion of the product may be harmful to the health of the individual.
Skin Contact	Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects.
Eye	This product may cause serious eye irritation. Severe inflammation may be expected with pain following direct contact with the eye.

## ◆ Environmental hazards

Please refer to 12th chapter of SDS.

**3** Composition/information on ingredients**Substance/mixture**

Substance

Component	CAS No.	EC No.	Concentration (Volume or weight percent, %)
Propylene glycol propyl ether	1569-01-3	216-372-4	99.9

**4** First-aid measures**Description of first aid measures**

<b>General advice</b>	Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.
<b>Skin contact</b>	Take off contaminated clothing and shoes immediately. Wash off with plenty of soap and water for at least 15 minutes and consult a physician if feel uncomfortable.
<b>Ingestion</b>	Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.
<b>Inhalation</b>	Move victim into fresh air. If breathing is difficult, give oxygen. Do not use mouth to mouth resuscitation if victim ingested or inhaled the substance. If not breathing, give artificial respiration and consult a physician immediately.
<b>Protecting of first-aiders</b>	Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination.

**Most important symptoms/effects, acute and delayed**

1	Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.
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**Indication of any immediate medical attention and special treatment needed**

1	Treat symptomatically.
2	Symptoms may be delayed.

**5** Fire-fighting measures**Extinguishing media**

<b>Suitable extinguishing media</b>	Small Fire : Dry chemical, CO2, water spray or alcohol-resistant foam; Large Fire : Water spray, fog or alcohol-resistant foam.
<b>Unsuitable extinguishing media</b>	Do not use a solid water stream as it may scatter or spread fire.

**Specific hazards arising from the substance or mixture**

1	Will form explosive mixtures with air.
2	Fire exposed containers may vent contents through pressure relief valves thereby increasing fire intensity and/or vapour concentration.
3	Vapours may travel to source of ignition and flash back.

4	Liquid and vapour are flammable.
5	Development of hazardous combustion gases or vapor possible in the event of fire.
6	May expansion or decompose explosively when heated or involved in fire.

### Special protective equipment and precautions for fire-fighters

1	As in any fire, wear self-contained breathing apparatus ( MSHA/NIOSH approved or equivalent) and full protective gear.
2	Fight fire from a safe distance, with adequate cover.
3	Prevent fire extinguishing water from contaminating surface water or the ground water system.

## 6 Accidental release measures

### Personal precautions, protective equipment and emergency procedures

1	Avoid breathing vapours and contacting with skin and eye.
2	Beware of vapours accumulating to form explosive concentrations.
3	Vapours can accumulate in low areas.
4	Emergency personnel wear positive pressure self-contained breathing apparatus. Wear protective and anti-static clothing. Wear chemical impermeable gloves.
5	Use personal protective equipment, do not breathe gas/mist/vapour/spray.
6	Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.
7	Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

### Environmental precautions

1	Prevent further leakage or spillage if safe to do so.
2	Discharge into the environment must be avoided.

### Methods and materials for containment and cleaning up

1	Cover with DRY earth, DRY sand or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.
2	In case of small amount of spillage, use clean non sparking tools to collect absorption materials.
3	Water spray reduces evaporation but does not reduce the flammability of spills in confined spaces.
4	It is recommended that emergency personnel wear positive pressure self-contained breathing apparatus and wear anti-static clothing.
5	In case of large amount of spillage, construct cofferdam or dig a hole to collect the spillage. Use foam cover to reduce evaporation. Water spray mist can reduce evaporation, but can not reduce the flammability of the leakage in the restricted space.
6	Collect absorbent material using a clean, non-sparking tool.
7	Cover with anti-solvent foam to reduce evaporation.
8	Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.
9	Cut off the source of the leak as much as possible.
10	Keep leaks in a ventilated place.
11	Absorb spilled material in dry sand or inert absorbent. In case of large amount of spillage, contain a spill by bunding.
12	Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.
13	Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container.

## 7 Handling and storage

## Precautions for safe handling

1	Avoid inhalation of vapors.
2	Use only non-sparking tools.
3	To prevent fire caused by electrostatic discharge steam, equipment on all metal parts should be grounded.
4	Use explosion proof equipment.
5	Handling is performed in a well ventilated place.
6	Wear suitable protective equipment.
7	Avoid contact with skin and eyes.
8	Keep away from heat/sparks/open flames/ hot surfaces.

## Conditions for safe storage, including any incompatibilities

1	Keep containers tightly closed.
2	Keep containers in a dry, cool and well-ventilated place.
3	Keep away from heat/sparks/open flames/hot surfaces.
4	Store away from incompatible materials and foodstuff containers.

## 8 Exposure controls/personal protection

### Control parameters

<b>Occupational Exposure limit values</b>	No relevant regulations
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#### ◆ Biological limit values

<b>Biological limit values</b>	No relevant regulations
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#### ◆ Monitoring methods

1	EN 14042 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.
2	GBZ/T 300 series standard Determination of toxic substances in workplace air.

### Engineering controls

1	Ensure adequate ventilation, especially in confined areas.
2	Ensure that eyewash stations and safety showers are close to the workstation location.
3	Use explosion-proof electrical/ventilating/lighting/equipment.
4	Set up emergency exit and necessary risk-elimination area.

### Personal protection equipment

<b>General requirement</b>	    
<b>Eye protection</b>	Must wear appropriate safety goggles.
<b>Hand protection</b>	Must wear anti static chemical protective gloves.
<b>Respiratory protection</b>	Must wear appropriate personal respiratory protective equipment.
<b>Skin and body protection</b>	Must wear anti static chemical protective clothing and anti static shoes.

## 9 Physical and chemical properties and safety characteristics

**Physical and chemical properties**

<b>Physical state</b>	Liquid
<b>Colour</b>	Colorless transparant
<b>Odor</b>	No information available
<b>Odor threshold</b>	No information available
<b>pH</b>	No information available
<b>Melting point/freezing point(°C)</b>	< -70
<b>Initial boiling point and boiling range(°C)</b>	149~150
<b>Flash point(Closed cup, °C)</b>	46.4
<b>Evaporation rate</b>	No information available
<b>Flammability</b>	Flammable
<b>Upper/lower explosive limits[% (v/v)]</b>	Upper limit : 16.9 ; Lower limit : 1.3
<b>Vapor pressure</b>	0.226kPa
<b>Relative vapour density(Air = 1)</b>	4
<b>Relative density(Water=1)</b>	0.884 ( 20°C )
<b>Solubility</b>	Miscible with water
<b>n-octanol/water partition coefficient</b>	0.62
<b>Auto-ignition temperature(°C)</b>	252
<b>Decomposition temperature(°C)</b>	No information available
<b>Kinematic viscosity</b>	No information available
<b>Particle characteristics</b>	Not applicable

**10 Stability and reactivity****Stability and reactivity**

<b>Reactivity</b>	Contact with incompatible substances can cause decomposition or other chemical reactions.
<b>Chemical stability</b>	Stable under proper operation and storage conditions.
<b>Possibility of hazardous reactions</b>	No information available.
<b>Conditions to avoid</b>	Incompatible materials, heat, flame and spark.
<b>Incompatible materials</b>	No information available.
<b>Hazardous decomposition products</b>	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**11 Toxicological information****Acute toxicity**

<b>Acute toxicity</b>	No information available
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**Carcinogenicity**

<b>Component</b>	<b>List of carcinogens by the IARC Monographs</b>	<b>Report on Carcinogens by NTP</b>
Propylene glycol propyl	Not Listed	Not Listed



ether		
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## Others

Propylene glycol propyl ether(Component)	
Skin corrosion/irritation	Based on available data, the classification criteria are not met
Serious eye damage/irritation	Causes serious eye irritation(Category 2)
Skin sensitization	Based on available data, the classification criteria are not met
Respiratory sensitization	Based on available data, the classification criteria are not met
Reproductive toxicity	Based on available data, the classification criteria are not met
STOT-single exposure	Based on available data, the classification criteria are not met
STOT-repeated exposure	Based on available data, the classification criteria are not met
Aspiration hazard	Based on available data, the classification criteria are not met
Germ cell mutagenicity	Based on available data, the classification criteria are not met

## 12 Ecological information

### Acute aquatic toxicity

Acute aquatic toxicity	No information available
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### Chronic aquatic toxicity

Chronic aquatic toxicity	No information available
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### Persistence and degradability

Component	Persistence (water/soil)	Persistence (air)
Propylene glycol propyl ether	Low	Low

### Bioaccumulative potential

Component	Bioaccumulative potential	Comments
Propylene glycol propyl ether	Low	Log Kow=0.5666

### Mobility in soil

Component	Mobility in soil	Soil Organic Carbon-Water Partitioning Coefficient (Koc)
Propylene glycol propyl ether	High	1

### Results of PBT and vPvB assessment

Component	Results of PBT and vPvB assessment [according to (EC) No 1907/2006]
Propylene glycol propyl ether	Not PBT/vPvB

## 13 Disposal considerations


### Disposal considerations

Waste chemicals	Before disposal should refer to the relevant national and local laws and
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	regulation. Recommend the use of incineration disposal.
<b>Contaminated packaging</b>	Containers may still present chemical hazard when empty. Keep away from hot and ignition source of fire. Return to supplier for recycling if possible.
<b>Disposal recommendations</b>	Refer to section waste chemicals and contaminated packaging.

## 14 Transport information

### Label

<b>Transporting Label</b>	
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### IMDG-CODE

<b>UN number</b>	3271
<b>UN proper shipping name</b>	ETHERS, N.O.S.
<b>Transport hazard class</b>	3
<b>Transport subsidiary hazard class</b>	None
<b>Packing group</b>	III
<b>Marine pollutant ( Yes or no )</b>	No

### ICAO/IATA-DGR

<b>UN number</b>	3271
<b>UN proper shipping name</b>	ETHERS, N.O.S.
<b>Transport hazard class</b>	3
<b>Transport subsidiary hazard class</b>	None
<b>Packing group</b>	III

### UN-ADR

<b>UN number</b>	3271
<b>UN proper shipping name</b>	ETHERS, N.O.S.
<b>Transport hazard class</b>	3
<b>Transport subsidiary hazard class</b>	None
<b>Packing group</b>	III

## 15 Regulatory information

### International chemical inventory

Component	EC inventory	TSCA	DSL	IECSC	NZIoC	PICCS	KECI	AIICS	ENCS
<b>Propylene glycol propyl ether</b>	✓	✓	✓	✓	✓	✓	✓	✓	✓

[EC inventory] European Inventory of Existing Commercial Chemical Substances

[TSCA] United States Toxic Substances Control Act Inventory

[DSL] Canadian Domestic Substances List

[IECSC]	China Inventory of Existing Chemical Substances
[NZIoC]	New Zealand Inventory of Chemicals
[PICCS]	Philippines Inventory of Chemicals and Chemical Substances
[KECI]	Korea Existing Chemicals Inventory
[AIICS]	Australian. Inventory of Industrial Chemical (AIICS)
[ENCS]	Japan Inventory of Existing & New Chemical Substances

Note:

- “√” Indicates that the substance included in the regulations.  
 “x” No data or not included in the regulations.

## 16 Other information

### Information on revision

Creation Date	2023/07/05
Revision Date	2023/07/05
Reason for revision	-

### Reference

- [1] IPCS: The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>.
- [2] IARC, website: <http://www.iarc.fr/>.
- [3] OECD: The Global Portal to Information on Chemical Substances, website: <https://www.echemportal.org/echemportal/substancesearch/index.action>.
- [4] CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>.
- [5] NLM: ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>.
- [6] EPA: Integrated Risk Information System, website: <http://cfpub.epa.gov/iris/>.
- [7] U.S. Department of Transportation: ERG, website: <http://www.phmsa.dot.gov/hazmat/library/erg>.
- [8] Germany GESTIS-database on hazard substance, website: <http://gestis-en.itrust.de/>.

### Abbreviations and acronyms

CAS	Chemical Abstracts Service	UN	The United Nations
PC-STEL	Short term exposure limit	OECD	Organization for Economic Co-operation and Development
PC-TWA	Time Weighted Average	IMDG-CODE	International Maritime Dangerous Goods CODE
MAC	Maximum Allowable Concentration	IARC	International Agency for Research on Cancer
DNEL	Derived No Effect Level	ICAO	International Civil Aviation Organization
PNEC	Predicted No Effect Concentration	IATA	International Air Transportation Association
NOEC	No Observed Effect Concentration	ACGIH	American Conference of Governmental Industrial Hygienists
LC <sub>50</sub>	Lethal Concentration 50%	NFPA	National Fire Protection Association
LD <sub>50</sub>	Lethal Dose 50%	NTP	National Toxicology Program
EC <sub>50</sub>	Effective Concentration 50%	PBT	Persistent, Bioaccumulative, Toxic
EC <sub>x</sub>	Effective Concentration X%	vPvB	very Persistent, very Bioaccumulative
P <sub>OW</sub>	Partition coefficient Octanol: Water	CMR	Carcinogens, mutagens or substances toxic to reproduction
BCF	Bioconcentration factor	RPE	Respiratory Protective Equipment
ED	Endocrine disruptor		

### Disclaimer

This Safety Data Sheet (SDS) was prepared according to UN GHS (the 9th revised edition). The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.