Date of issue: 2018/04/10
Date of revision: 2021/08/20

Safety Data Sheet

1. Identification of the substance/mixture and of the company/undertaking

Product identifier:

Product name: Propylene glycol

SDS No. : 6497E-2

Details of the supplier of the safety data sheet

Manufacturer/Supplier: KISHIDA CHEMICAL CO., LTD.
Address: 3-1, Honmachibashi, Chuo-ku,Osaka ,JAPAN
Division: Safety Management Dept. of Chemicals
Telephone number: +81-6-6946-8061
FAX: +81-6-6946-1607
e-mail address: kagakuhinanzenkanri@kishida.co.jp

2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture

HEALTH HAZARDS

Specific target organ toxicity - single exposure: Category 1(central nervous system; blood system)

Specific target organ toxicity - single exposure: Category 3(Narcosis)

Specific target organ toxicity - repeated exposure: Category 1(central nervous system; respiratory system)

Label elements



Signal word: Danger

HAZARD STATEMENT

Causes damage to organs(central nervous system; blood system)

May cause drowsiness or dizziness

Causes damage to organs through prolonged or repeated exposure(central nervous system; respiratory system)

PRECAUTIONARY STATEMENT

Prevention

Do not breathe dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

Wash contaminated parts thoroughly after handling.

Do not eat, drink or smoke when using this product.

Response

Get medical advice/attention if you feel unwell.

IF exposed or concerned: Call a POISON CENTER/doctor/physician.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Storage

Store in a well-ventilated place. Keep container tightly closed.

Disposal

Dispose of contents/container in accordance with local/national regulation.

3. Composition/information on ingredients

Mixture/Substance selection:

Substance

Ingredient name:Propylene glycol

Content (%):98(min)

Chemical formula:CH3CH(OH)CH2OH

Chemicals No, Japan:2-234

CAS No.:57-55-6

MW:76.10

ECNO:200-338-0

Note : The figures shown above are not the specifications of the product.

4. First-aid measures

Descriptions of first-aid measures

General measures

Get medical advice/attention if you feel unwell.

IF INHALED

Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER/doctor/physician if you feel unwell.

IF ON SKIN (or hair)

Take off immediately all contaminated clothing. Rinse skin with water or shower.

If skin irritation or rash occurs: 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 SWALLOWED

Rinse mouth.

Call a POISON CENTER/doctor/physician if you feel unwell.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

In case of fire, use foam, dry powder, CO2 to extinguish.

Unsuitable extinguishing media

Indoor firefighting equipment or outdoor firefighting equipment

Sprinkler equipment

Dry-powder firefighting equipment - except for phosphate etc.,hydrogen carbonate etc.

Straight stream water extinguisher

Water mist extinguisher

Reinforcing liquid jet extinguisher

Dry-powder extinguisher - except for phosphate etc.,hydrogen carbonate etc.

Bucket of water or tank of water

Specific hazards arising from the substance or mixture

Containers may explode when heated.

Fire may produce irritating, corrosive and/or toxic gases.

Advice for firefighters

Specific fire-fighting measures

Evacuate non-essential personnel to safe area.

Special protective equipment and precautions for fire-fighters

Wear fire resistant or flame retardant clothing.

Wear protective gloves/protective clothing/eye protection/face protection.
Firefighters should wear self-contained breathing apparatus with full face peace operated positive pressure mode.

6. Accidental release measures

Personnel precautions, protective equipment and emergency procedures

Ventilate area until material pick up is complete.
Wear proper protective equipment.

Environmental precautions

Prevent spills from entering sewers, watercourses or low areas.

Methods and materials for containment and cleaning up

Absorb spill with inert material (dry sand, earth, et al), then place in a chemical waste container.

Preventive measures for secondary accident

Collect spillage.

7. Handling and storage

Precautions for safe handling

Preventive measures

(Exposure Control for handling personnel)

Do not breathe dust/fume/gas/mist/vapors/spray.

(Protective measures against fire and explosion)

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

(Exhaust/ventilator)

Exhaust/ventilator should be available.

(Safety treatments)

Avoid contact with skin.
Avoid contact with eyes.

Safety Measures

Use only outdoors or in a well-ventilated area.
Wear protective gloves, protective clothing or face protection.
When using do not eat, drink or smoke.

Any incompatibilities

See "10.Stability and Reactivity"

Advice on general occupational hygiene

Wash contaminated parts thoroughly after handling.
Do not eat, drink or smoke when using this product.

Storage

Conditions for safe storage

Keep container tightly closed.
Store in a cool, dry place. Do not store in direct sunlight.

Container and packaging materials for safe handling

Glass
Iron

8. Exposure controls/personal protection

Control parameters

Exposure controls

Appropriate engineering controls

Do not use in areas without adequate ventilation.

Eye wash station should be available.
Washing facilities should be available.
Individual protection measures
Respiratory protection
Wear respiratory protection.
Hand protection
Wear protective gloves.
Eye protection
Wear eye/face protection.

9. Physical and Chemical Properties

Information on basic physical and chemical properties
Physical state: Liquid
Color: Colorless
Odor: Characteristic odour
Melting point/Freezing point: −59℃
Boiling point or initial boiling point: (Propylene glycol)188.2℃
Boiling range data is not available.
Flammability (gases, liquids and solids) data is not available.
Lower and upper explosion limit/flammability limit:
Lower explosion limit: 2.6 vol %
Upper explosion limit: 12.6 vol %
Flash point: (C.C.)(Propylene glycol)101℃
Auto-ignition temperature: (Propylene glycol)420℃
Decomposition temperature data is not available.
pH data is not available.
Kinematic viscosity data is not available.
Solubility:
Solubility in water: Easily soluble
n-Octanol/water partition coefficient: log Pow=-0.92
Vapor pressure: 10.6 Pa (20℃)
Density and/or relative density: 1.04 g/ml
Relative vapor density (Air=1): 2.6
Relative density of the Vapor/air - mixture at 20℃ (Air = 1): 1
Particle characteristics data is not available.

10. Stability and Reactivity

Reactivity
Not available.
Chemical stability
Hygroscopic substance.
Possibility of hazardous reactions
Reacts violently with strong oxidants and alkalis. This generates fire hazard. (ICSC 0321)
Conditions to avoid
Contact with incompatible materials.
Contact with fire source.
Incompatible materials
Bases, Strong oxidizing agents
Hazardous decomposition products
Carbon oxides

11. Toxicological Information

Information on toxicological effects

Acute toxicity

Acute toxicity (Oral)

[GHS Cat. Japan, base data]

(Propylene glycol)

rat LD50=8000-46000mg/kg (EPA Pesticide, 2006)

Acute toxicity (Dermal)

[GHS Cat. Japan, base data]

(Propylene glycol)

rabbit LD50=20800 mg/kg (SIDS, 2004)

Irritant properties

Skin corrosion/irritation data is not available.

Serious eye damage/irritation data is not available.

Allergenic and sensitizing effects data is not available.

Mutagenic effects data is not available.

Carcinogenic effects data is not available.

Reproductive toxicity data is not available.

STOT

STOT-single exposure

[cat.1]

[GHS Cat. Japan, base data]

(Propylene glycol)

central nervous system; blood system (ATSDR addendum, 2008; SIDS, 2004)

[cat.3 (drow./dizz.)]

[GHS Cat. Japan, base data]

(Propylene glycol)

narcotic effect (ATSDR addendum, 2008; SIDS, 2004)

STOT-repeated exposure

[cat.1]

[GHS Cat. Japan, base data]

(Propylene glycol)

central nervous system; respiratory system (PATTY 6th, 2012; IPCS PIM 443, Accessed Oct. 2018; MOE risk assessment vol.6, 2008)

Aspiration hazard data is not available.

12. Ecological Information

Ecotoxicity

Aquatic toxicity

Hazardous to the aquatic environment (Acute)

[GHS Cat. Japan, base data]

(Propylene glycol)

Crustacea (Daphnia magna) EC50>1000mg/L/48h (MOE Japan, 2018)

Hazardous to the aquatic environment (Long-term)

[GHS Cat. Japan, base data]

(Propylene glycol)

Crustacea (Daphnia magna) NOEC=1000mg/L/21days (MOE Japan, 2018)

Water solubility

(Propylene glycol)

miscible (ICSC, 2014)

Persistence and degradability

(Propylene glycol)

Degrade rapidly (BOD_Degradation : 90% (CSCL DB, 1991))

Bioaccumulative potential

(Propylene glycol)

log Pow=-0.92 (ICSC, 2014)

Mobility in soil

Mobility in soil data is not available.

Other adverse effects

Ozone depleting chemical data is not available.

13. Disposal considerations

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging

Waste treatment methods

Dispose of contents/container in accordance with local/national regulation.

14. Transport Information

UN No. or ID No.: Not applicable

Not applicable to IMDG Code

Not applicable to IATA Dangerous Goods Regulations

Environmental hazards

MARPOL Annex III - Prevention of pollution by harmful substances

Marine pollutants (yes/no) : no

MARPOL Annex V - Prevention of pollution by garbage discharge

Specific target organ toxicity - repeated exposure: cat.1

Propylene glycol

Maritime transport in bulk according to IMO instruments

Non Noxious Liquid ; Cat. OS

Propylene glycol

15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Chemicals listed in TSCA Inventory

Propylene glycol

Other regulatory information

Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

16. Other information

GHS classification and labelling

STOT SE 1: H370 Causes damage to organs

STOT SE 3: H336 May cause drowsiness or dizziness

STOT RE 1: H372 Causes damage to organs through prolonged or repeated exposure

Reference Book

Globally Harmonized System of classification and labelling of chemicals, UN Recommendations on the TRANSPORT OF DANGEROUS GOODS 21th edit., 2019 UN IMDG Code, 2018 Edition (Incorporating Amendment 39-18) IATA Dangerous Goods Regulations (62nd Edition) 2021 2020 EMERGENCY RESPONSE GUIDEBOOK (US DOT) 2021 TLVs and BEIs. (ACGIH) Supplier's data/information

General Disclaimer

This data sheet was created based on the information we currently have and may be revised according to new information. In addition, the precautions apply only to normal handling, and in the case of special handling, please make adequate countermeasure to maintain your safety.

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.

The GHS classification data given here is based on current Japan official data (NITE published in 2019).