



SAFETY DATA SHEET

According to JIS Z 7253:2019 Revision date 26-Feb-2024 Revision Number 2.03

Section 1: PRODUCT AND COMPANY IDENTIFICATION

| Product Name | Dipropylene Glycol Monomethyl Ether(mixture of isomers) |
|----------------------------|--|
| Product Code | 130-08312,134-08315 |
| Supplier | FUJIFILM Wako Pure Chemical Corporation |
| | 1-2 Doshomachi 3-Chome, Chuo-ku, Osaka 540-8605, Japan |
| | Phone: +81-6-6203-3741 |
| | Fax: +81-6-6203-2029 |
| Emergency telephone number | +81-6-6203-3741 / +81-3-3270-8571 |
| Recommended uses | For research use only |
| Restrictions on use | Seek expert judgment when using for purposes other than those recommended. |

Section 2: HAZARDS IDENTIFICATION

GHS classification <u>Classification of the substance or mixture</u> Flammable liquids Serious eye damage/eye irritation Specific target organ toxicity (single exposure) <u>Category 3</u> Respiratory irritation, Narcotic effects

Pictograms



Signal word

Warning

Hazard statements

- H227 Combustible liquid
- H320 Causes eye irritation
- H335 May cause respiratory irritation
- H336 May cause drowsiness or dizziness

Precautionary statements-(Prevention)

- Wash face, hands and any exposed skin thoroughly after handling
- Avoid breathing dust/fume/gas/mist/vapors/spray
- Use only outdoors or in a well-ventilated area
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
- · Wear protective gloves/protective clothing/eye protection/face protection
- Keep cool

Precautionary statements-(Response)

• 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 INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- Call a POISON CENTER or doctor/physician if you feel unwell

Category 4 Category 2B Category 3 • In case of fire: Use suitable extinguishing media for extinction

Precautionary statements-(Storage)

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

Precautionary statements-(Disposal)

• Dispose of contents/container to an approved waste disposal plant

Others Other hazards

Not available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Single Substance or Mixture Substance

Formula

СНЗОСЗН6ОСЗН6ОН

| Chemical Name | Weight-% | Molecular weight | ENCS | ISHL No. | CAS RN |
|--------------------|----------|------------------|----------------|----------|------------|
| Dipropylene Glycol | 95.0 | 148.20 | (2)-426,(7)-97 | * | 34590-94-8 |
| Monomethyl Ether | | | | | |

Note on ISHL No.:

* in the table means announced chemical substances.

Substances Remarks:

This product is composed of isomer mixture.

Section 4: FIRST AID MEASURES

Inhalation

Remove to fresh air. If symptoms persist, call a physician.

Skin contact

Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.

Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediate medical attention is required.

Ingestion

Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. Do not induce vomiting without medical advice.

Protection of first-aiders

Use personal protective equipment as required.

Section 5: FIRE FIGHTING MEASURES

Suitable extinguishing media

Carbon dioxide (CO2), Foam, Extinguishing powder, Sand

Unsuitable extinguishing media

No information available

Specific hazards arising from the chemical product

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Special extinguishing method

No information available

Special protective actions for fire-fighters

Use personal protective equipment as required. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

For indoor, provide adequate ventilation process until the end of working. Deny unnecessary entry other than the people involved by, for example, using a rope. While working, wear appropriate protective equipments to avoid adhering it on skin, or inhaling the gas. Work from windward, and retract the people downwind.

Environmental precautions

To be careful not discharged to the environment without being properly handled waste water contaminated.

Methods and materials for contaminent and methods and materials for cleaning up

Absorb dry sand, earth, sawdust and the waste. Collect empty container that can be sealed.

Recoverly, neutralization

No information available

Secondary disaster prevention measures

Clean contaminated objects and areas thoroughly observing environmental regulations.

Section 7: HANDLING AND STORAGE

Handling

Technical measures

Highly flammable. Avoid contact with high temperature objects, spark, and strong oxidizing agents. Use with local exhaust ventilation.

Precautions

Do not rough handling containers, such as upsetting, falling, giving a shock, and dragging. Prevent leakage, overflow, and scattering. Not to generate steam and dust in vain. Seal the container after use. After handling, wash hands and face, and then gargle. In places other than those specified, should not be smoking or eating and drinking. Should not be brought contaminated protective equipment and gloves to rest stops. Deny unnecessary entry of non-emergency personnel to the handling area.

Safety handling precautions

Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

Storage

Safe storage conditions

Storage conditions

Safe packaging material Incompatible substances

Store away from sunlight in well-ventilated place at room temperature (preferably cool). Keep container tightly closed. Glass Strong oxidizing agents

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls

In case of indoor workplace, seal the source or use a local exhaust system. Provide the safety shower facility, and handand eye-wash facility. And display their position clearly.

Exposure limits

| Chemical Name | JSOH (Japan) | ISHL (Japan) | ACGIH |
|--|--------------|--------------|-------------|
| Dipropylene Glycol Monomethyl Ether 34590-94-8 | N/A | N/A | TWA: 50 ppm |

Personal protective equipment

 Respiratory protection
 Protective mask

 Hand protection
 chemical protective gloves (JIS T 8116)

 Eye protection
 protective eyeglasses or chemical safety goggles (JIS T 8147)

 Skin and body protection
 Long-sleeved work clothes

 General hygiene considerations
 Handle in accordance with good industrial hygiene and safety practice.

 If this product is classified as "Chemical Substances Hazardous to Skin, etc.", use appropriate protect

If this product is classified as "Chemical Substances Hazardous to Skin, etc.", use appropriate protective equipment to them.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Form Color Turbidity Appearance Odor Melting point/freezing point Boiling point, initial boiling point and boiling range Flammability Evaporation rate: Flammability (solid, gas): Upper/lower flammability or explosive limits Upper: Lower: Flash point Auto-ignition temperature: **Decomposition temperature:** рΗ Viscosity (coefficient of viscosity) Dynamic viscosity Solubilities n-Octanol/water partition coefficient:(log Pow) Vapour pressure Specific Gravity / Relative density Vapour density **Particle characteristics**

Colorless - nearly colorless clear liquid no data available -83 °C 190 °C Combustible liquid no data available no data available no data available no data available 74 °C no data available water and Ethanol : Very soluble. no data available no data available 0.950 - 0.960 g/mL no data available no data available

Section 10: STABILITY AND REACTIVITY

Stability

 Reactivity
 no data available

 Chemical stability
 Stable under recommended storage conditions.

 Hazardous reactions
 Stable under recommended storage conditions.

 None under normal processing
 Conditions to avoid

 Extremes of temperature and direct sunlight, Heat, flames and sparks, static electricity, spark

 Incompatible materials
 Strong oxidizing agents

 Hazardous decomposition products
 Carbon monooxide (CO), Carbon dioxide (CO2)

Section 11: TOXICOLOGICAL INFORMATION

Acute toxicity **Chemical Name** Oral LD50 **Dermal LD50** Inhalation LC50 Dipropylene Glycol >5000 mg/kg (Rat) >5000 mg/kg (Rabbit) >4.1 mg/L (Rat) 4 h Monomethyl Ether Acute toxicity -inhalation gas-**Chemical Name** Acute toxicity -oral- source Acute toxicity -dermal- source source information information information Dipropylene Glycol Monomethyl Based on the NITE GHS Based on the NITE GHS Based on the NITE GHS classification results. classification results. classification results. Ether

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| | vapor- source information | source information | source information | |
|-------------------------------------|---------------------------|---|---|--|
| Dipropylene Glycol Monomethyl | Based on the NITE GHS | Based on the NITE GHS | Based on the NITE GHS | |
| Ether | classification results. | classification results. | classification results. | |
| kin irritation/corrosion | | | | |
| Chemical | Name | Skin corrosion/irri | tation source information | |
| Dipropylene Glycol N | Ionomethyl Ether | Based on the NITE GHS clas | Based on the NITE GHS classification results. | |
| Serious eye damage/ irritation | | | | |
| Chemical | Name | Serious eye damage/ | irritation source information | |
| Dipropylene Glycol N | Ionomethyl Ether | Based on the NITE GHS clas | ssification results. | |
| Respiratory or skin sensitization | | | | |
| Chemical | Name | | nsitization source information | |
| Dipropylene Glycol N | Ionomethyl Ether | Based on the NITE GHS classification results. | | |
| Reproductive cell mutagenicity | | | | |
| Chemical Name | | | ncity source information | |
| Dipropylene Glycol Monomethyl Ether | | Based on the NITE GHS clas | ssification results. | |
| Carcinogenicity | | | | |
| Chemical Name | | | ty source information | |
| Dipropylene Glycol Monomethyl Ether | | Based on the NITE GHS clas | ssification results. | |
| Reproductive toxicity | | | | |
| Chemical Name | | Reproductive tox | Reproductive toxicity source information | |
| Dipropylene Glycol N | Ionomethyl Ether | Based on the NITE GHS classification results. | | |
| STOT-single exposure | | · | | |
| Chemical | Name | STOT -single exposure- source information | | |
| Dipropylene Glycol Monomethyl Ether | | Based on the NITE GHS classification results. | | |
| STOT-repeated exposure | | | | |
| Chemical Name | | STOT -repeated exp | STOT -repeated exposure- source information | |
| Dipropylene Glycol Monomethyl Ether | | Based on the NITE GHS classification results. | | |
| Aspiration hazard | | | | |
| Chemical | Name | | ard source information | |
| Dipropylene Glycol N | Ionomethyl Ether | Based on the NITE GHS clas | Based on the NITE GHS classification results. | |
| | | | | |

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

| Chemical Name | Algae/aquatic plants | Fish | Crustacea |
|--------------------|----------------------|--------------------------|--------------------|
| Dipropylene Glycol | N/A | LC50:Pimephales promelas | LC50:Daphnia magna |
| Monomethyl Ether | | 10000 mg/L 96 h | 1919 mg/L 48 h |

Other data

| Chemical Name | Short-term (acute) hazardous to the | Long-term (chronic) hazardous to the |
|-------------------------------------|--|--|
| a | aquatic environment source information | aquatic environment source information |
| Dipropylene Glycol Monomethyl Ether | Based on the NITE GHS classification | Based on the NITE GHS classification |
| r | results. | results. |

Persistence and degradability Bioaccumulative potential Mobility in soil Hazard to the ozone layer No information available No information available No information available No information available

Section 13: DISPOSAL CONSIDERATIONS

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Waste from residues

Disposal should be in accordance with applicable regional, national and local laws and regulations. Contaminated container and contaminated packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Section 14: TRANSPORT INFORMATION

| ADR/RID UN number Proper shipping name: UN classfication Subsidiary hazard class Packing group Marine pollutant | Not regulated - Not applicable |
|---|--------------------------------------|
| IMDG | Not regulated |
| UN number Proper shipping name: | - |
| UN classfication | |
| Subsidiary hazard class Packing group | |
| Marine pollutant (Sea) | Not applicable |
| Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | No information available |
| IATA | Not regulated |
| UN number | - |
| Proper shipping name: UN classfication | |
| Subsidiary hazard class Packing group Environmentally Hazardous Substance | Not applicable |

Section 15: REGULATORY INFORMATION

| <u>Japanese regulations</u> Fire Service Act Poisonous and Deleterious Substances Control Law | Category IV, Class III petroleums, dangerous grade 3 water-soluble Not applicable |
|--|--|
| Industrial Safety and Health Ac | t Harmful Substances Whose Names Are to be Indicated on the Label (Law Art.57) |
| | Notifiable Substances (Law Art.57-2) |
| Industrial Safety and Health Act (2024~) | [2024.4.1~] Chemical Substances Hazardous to Skin, etc.(Regulations Article 594-2 Paragraph 1) |
| Regulations for the carriage and storage of dangerous goods in ship | Not applicable |
| Civil Aeronautics Law | Not applicable |
| Marine Pollution Prevention Law | Enforcement ordinance Appendix No. 1 Noxious liquid substance Category Z |
| Pollutant Release and Transfer Register Law (2023.4.1-) | Not applicable |
| Export Trade Control Order | Not applicable |

| Chemical Name | Poisonous and Deleterious Substances Control Law | Industrial Safety and Health Act Substances (Law Art.57-2) | Pollutant Release and Transfer Register Law (2023.4.1-) |
|-------------------------------------|---|--|---|
| | | | (2020.4.1) |
| Dipropylene Glycol Monomethyl Ether | - | Applicable | - |

| Chemical Name | Poisonous and Deleterious Substances Control Law | Industrial Safety and Health Act Substances (Law Art.57-2) | Pollutant Release and Transfer Register Law (2023.4.1-) |
|---------------------|---|--|---|
| 34590-94-8 (95.0) | | | |

Section 16: OTHER INFORMATION

| Key literature references and sources for data etc. | NITE: National Institute of Technology and Evaluation (JAPAN) http://www.safe.nite.go.jp/japan/db.html IATA dangerous Goods Regulations RTECS:Registry of Toxic Effects of Chemical Substances Japan Industrial Safety and Health Association GHS Model SDS Dictionary of Synthetic Oraganic Chemistry , SSOCJ, Koudansha Scientific Co.Ltd. Chemical Dictionary, Kyouritsu Publishing Co., Ltd. etc |
|---|---|
| | |

Record of SDS revisions Disclaimer

The following contents were revised. Regulatory information.

This SDS is according to JIS Z 7253: 2019. 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, 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.

GHS Classification is according to JIS Z 7252:2019. *JIS: Japanese Industrial Standards

End of Safety Data Sheet