

SAFETY DATA SHEET

SDS: A5111-0300_E001

Date Prepared: 2019/09/06

Date Revised: 2023/01/10

Product Name: **METHYL PROPYLENE GLYCOL SS**

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

Product name:	METHYL PROPYLENE GLYCOL SS
Identification of the supplier:	Nippon Nyukazai Co., Ltd.
Address:	No.4-1.Nihonbashi Kobuna-cho, Chuo-ku, Tokyo 103-0024, Japan
Charge section:	Business Operation Department (TEL:+81-3-5651-5640,FAX:+81-3-5651-5646)
Emergency telephone number:	Business Operation Department (TEL:+81-3-5651-5640,FAX:+81-3-5651-5646)
Recommend use:	Cleaning agent for electronic materials , Detergent
Restrictions on use:	Seek expert judgment when using for purposes other than those recommended.

2. Hazards identification

Hazard category

Flammable liquids	Category 3
Acute toxicity(vapour)	Category 4
Serious eye damage/eye irritation	Category 2B
Specific target organ systemic toxicity following single exposure	Category 3

Label elements

Hazard pictograms:



Signal word:

Warning

Hazard statements:

H226 Flammable liquid and vapour.
 H332 Harmful if inhaled.
 H320 Causes eye irritation
 H335+H336 May cause respiratory irritation, or May cause drowsiness or dizziness.

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.
 P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 P264 Wash hands and face thoroughly after handling.
 P271 Use only outdoors or in a well-ventilated area.

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P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response P312 Call a POISON CENTRE/doctor/healthcare professionals under the supervision of a doctor if you feel unwell.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

P370+P378 In case of fire : Use appropriate extinguishing media for extinction.

Storage P405 Store locked up.

P403+P233 Store in a well ventilated place. Keep container tightly closed.

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

Disposal P501 Dispose of contents/container in accordance with local/regional/national/international regulation.

3. Composition/information on ingredients

3.1. Substances

Ingredients and Concentration

Ingredient Name	Concentration wt.%	CAS RN®	Existing and New Chemical Substances (JAPAN)	Industrial Safety and Health Law Substances (JAPAN)	Industrial Safety and Health Law (JAPAN)	Pollutant Release Transfer Register Law (JAPAN)	Poisonous and Deleterious Substances Control Act (JAPAN)
			Gazette notice reference number	Gazette notice reference number	Notifiable Substances	Specified Substances	Poisonous and Deleterious Substances
Propylene Glycol Monomethyl Ether	99-100	107-98-2	2-404, 7-97	Public	Applicable	Not applicable	Not applicable

3.2. Mixtures

Not Applicable

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4. First aid measures

Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is stopped, lie on your back and perform cardiopulmonary respiration. Get medical advice/attention.
Skin contact:	Take off contaminated clothing and wash before reuse. Wash with plenty of soap and water. If skin irritation or a rash occurs: Get medical advice/attention.
Eye contact:	Immediately flush eye with plenty of clean water for at least 15 minutes. (If easy to do, remove contact lenses, if worn.) Get medical attention immediately.
Ingestion:	After having swallowed it, Drink a large quantity of water when consciousness becomes clear and receive treatment for the doctor immediately. A mouth must not give a person without the consciousness a thing.
Protection for first aid person:	The rescuer wears a tool for appropriate protection depending on the situation.

5. Firefighting measures

Suitable extinguishing media:	Use water spray(fog), foam, dry chemical or CO2.
Extinguishing media to avoid:	Straight stream water.
Specific hazards arising from the chemical:	At the time of fire, hazardous gases (carbon monoxide and others) can be generated.
Fire fighting:	Keep upwind of fire. Eliminate all ignition sources if safe to do so. In case of fire in the surroundings, move the content/container to the safety place. If it is not possible to move, cool the content/container with water spray.
Special protective equipment and precautions for fire fighters:	Gloves, protection glasses, wear fire, flame resistant, retardant clothing, air respiratory organs wear a tool for appropriate protection.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:	Promptly remove possible ignition sources from the vicinity. Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.
Environmental precautions:	To environment (area of the sea, the soil) must not release it.

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Methods and materials for containment and cleaning up: Absorb this product with inactive materials (example: dry sand, earth) and recover it into a waste material container.
 In the case of large amount, stop leakage with earth/sand to begin with, and, then, recover it.
 In the case of a small quantity, I adsorb it in the earth and sand, a waste and collect it in empty container which I can seal up after having removed it.

7. Handling and storage

Handling

Technical measures: During handling, be sure to wear proper protective equipment (refer to the section 8).
 This product can be charged with static electricity. Take countermeasures for static electricity removal (grounding, others).
 Wear antistatic clothes and antistatic shoes to prevent human body electrification.
 Use explosion-proof electrical/ventilating/lighting equipment.

Ventilation requirements: Use the ventilation equipment described in Section 8.

Precautions for safe handling: Not especially.

Storage

Storage conditions: Store the containers avoiding direct sunlight. Store in less than 40°C in a well-ventilated room.

Safety adequate container materials: Use the container specified by the Fire Service ACT and the United Nations Transport Regulations.

8. Exposure controls/personal protection

Appropriate engineering controls: Use local ventilation equipment.
 Install eye and body washing facilities near the handling place.
 Display the position of equipment clearly.

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Control parameters

Ingredient Name	Industrial Safety and Health Law (JAPAN)	Japan Society for Occupational Health	ACGIH-TLV	
	Administrative Control Levels	Occupational Exposure Limits	TWA	STEL
Propylene Glycol Monomethyl Ether	Not established	Not established	50ppm-mg/m ³	100ppm-mg/m ³

Personal protective equipment

Respiratory protection:	Use a gas mask for organic gases, air-supplied respirator, self-contained compressed air breathing apparatus on the situation.
Hand protection:	Organic solvent impermeable protective gloves (Antistatic ones are desirable.)
Eye/face protection:	Protective glasses, goggle, protective face shield.
Skin/body protection:	Wear long-sleeved working clothes and protective shoes.(Antistatic ones are desirable.) Use an oiliness apron-resistant, boots depending on the situation.
Hygiene measures:	Wash with soap and water after handling.

9. Physical and chemical properties

Product

Form:	Liquid (20°C)
Color:	Colorless transparent
Odor:	Mild ether odor
Melting point/freezing point:	-95(°C)
Initial boiling point and boiling range:	121(°C)
Flammability (solid, gas):	No data
Upper/lower flammability or explosive limits:	2.7–11.8(%)
Flash point:	32(°C)
Auto-ignition temperature:	277.5(°C)
Decomposition temperature:	No data
pH:	No data
Kinematic viscosity:	No data

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Solubility:	water : Soluble.
Partition coefficient: n-octanol/water:	No data
Vapour pressure:	893(Pa)(20°C)
Specific Gravity:	0.923(20°C)
Vapour density:	No data
Particle characteristics:	No data

10. Stability and reactivity

Chemical stability:	Stable under normal temperatures and pressures.
Possibility of hazardous reactions:	It may react with the oxidizing agent and generate heat.
Conditions to avoid:	Avoid heat, flames, sparks and ignition sources.
Incompatible materials:	Acid, Oxidizing agents.
Hazardous decomposition products:	No data available

11. Toxicological information

Product

Acute toxicity (oral):	No Classification
Acute toxicity (dermal):	No Classification
Acute toxicity (inhalation):	Exempt classification (Gas) Category 4 (Vapour) Classification not possible (Dust/Mist)
Skin corrosion/irritation:	No Classification
Serious eye damage/irritation:	Category 2B
Respiratory sensitization:	Classification not possible
Skin sensitization:	Classification not possible
Mutagenicity:	Classification not possible
Carcinogenicity:	Classification not possible
Reproductive toxicity:	No Classification
Target organ effect/Single exposure:	Category 3(anesthetic action)
Target organ effect/Multi exposure:	No Classification
Respiratory toxic:	Classification not possible

Ingredient

Propylene Glycol Monomethyl Ether

Acute toxicity (oral):	No Classification LD50:> 5000 mg/kg[rat]
Acute toxicity (dermal):	No Classification LD50: 13000-14100 mg/kg[rabbit]

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Acute toxicity (inhalation):	Exempt classification (Gas) Category 4 (Vapour) LC50: 7395-9258 ppm[mouse]
Skin corrosion/irritation:	Classification not possible (Dust/Mist) No Classification Mild [rabbit] Effect on animals : Based on results of "moderately irritating" in a rabbit skin irritation test (open Draize test) (Hazard Assessment Report (CERI, NITE) (2006)) and "slightly irritating" in a rabbit, rat and mouse skin irritation tests (EU-RAR No. 21 (2002)), the substance was classified into Category 2.
Serious eye damage/irritation:	Category 2B Mild [rabbit] Effect on animals : Based on the results (SIDS (2003)) of low or mild irritation in multiple tests using rabbits, this substance was classified in Category 2B
Respiratory sensitization:	Classification not possible Effect on person : No data available.
Skin sensitization:	Classification not possible Effect on animals : There is a result of "not sensitizing" in a guinea pig skin sensitizing test (modified Maguire test) (SIDS (2001)). Since the test method used is not approved by OECD and the detailed data (such as positive rates) are unknown, classification was not possible due to lack of sufficient data.
Mutagenicity:	Classification not possible Due to the revision of the classification guidance, "out of classification" can no longer be selected, so "cannot be classified". That is, in vivo, a micronucleus test using mouse bone marrow erythrocytes was reported to be negative (SIDS (2003), ACGIH (7th, 2013)). In addition, in vitro, the Ames test, gene mutation test using Chinese hamster cell line (CHO, V79), chromosomal aberration test and micronucleus test are all negative (SIDS (2003), ACGIH (7th, 2013)).
Carcinogenicity:	Classification not possible ACGIH:A4

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Reproductive toxicity:

No Classification

In two-generation reproductive tests by oral exposure to mice and inhalation exposure to rats, lengthened estrous cycles, decreased fertility, reduced pup survival and litter size were observed at the highest dose (3000 ppm) group of rats. However, the result was not used as the basis of classification, since these findings accompanied marked toxicity, as evidenced by persistent sedation and decreased body weights which were as much as 21% lower than the control group. For the other dose level rat and the mice dose groups, there were no effects on sexual function and fertility (SIDS (2001)). In developmental toxicity tests by inhalation exposure to rats and rabbits during organogenesis period (SIDS (2001)) and by oral exposure to rats, mice or rabbits during gestation period (SIDS (2001)), delayed sternebral ossification was observed in some tests but no adverse effects on fetal development including teratogenicity were detected. Since it is clear from appropriate tests with multiple animal species and by multiple exposure routes that the substance has no reproductive or developmental toxicity, it was classified as "Not classified".

Target organ effect/Single exposure: Category 3(anesthetic action)

Acute toxic signs related to narcotic action of the substance are reported as follows; somnolence, uncoordinated gait and ataxia by oral administration to rats (ECETOC 95 (2005)); laterally recumbent, generally unresponsive and central nervous system depression by inhalation exposure to rats (SIDS (2001)); and slight weakness and signs of general narcosis varying in intensity from slight drowsiness to deep anaesthesia by dermal exposure to rabbits (ECETOC 95 (2005)). Based on the data, the substance was classified into Category 3 (narcotic effects).

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Target organ effect/Multi exposure:	<p>No Classification</p> <p>In 13-week inhalation tests (6 hour/day), rats, mice and rabbits exhibited transient CNS depression and transient mild degenerative changes in the livers following high level exposure (SIDS (2001)). The NOEL/NOAELs were reported to be 300 ppm (1.11 mg/L) and 1000 ppm (3.68 mg/L), respectively, in rats; 1000 ppm (3.68 mg/L) in mice and 1000 ppm (3.68 mg/L) in rabbits (SIDS (2001)). Since the NOELs exceed the upper limit of the guidance value range, the substance corresponds to "Not classified" with inhalation exposure. In a 35-day oral test in rats, the NOEL was 919 mg/kg bw/day (90-day equivalence: 357 mg/kg bw/day) (SIDS (2001)). In a 90-day dermal test in rabbits the NOEL was 2 mL/kg bw/day (1840 mg/kg bw/day) (SIDS (2001)). Since the NOELs exceed the upper limit of the guidance value range, the substance corresponds to "Not classified" with oral and dermal routes. Overall, the substance was classified as "Not classified" since it corresponds to "Not classified" with inhalation, oral and dermal exposure routes.</p>
Respiratory toxic:	<p>Classification not possible</p> <p>Effect on person : No data available.</p>

12. Ecological information

Product

Ecotoxicity	
Acute toxicity:	No Classification
Chronic toxicity:	No Classification
Persistence and degradability :	No information.
Bioaccumulative potential :	No information.
Mobility in soil:	No information.
Hazardous to the ozone layer:	Classification not possible
Other impact :	No information.

Ingredient

Propylene Glycol Monomethyl Ether

Ecotoxicity	
Acute toxicity:	No Classification
Fish:	96hrLC50:> 1000 mg/L[Oncorhynchus mykiss]
Daphnia:	48hrEC50:> 1000 mg/L[Daphnia magna]
Algae:	96hrEC50:> 1000 mg/L[Pseudokirchneriella subcapitata]
Chronic toxicity:	No Classification
Fish:	No data

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Daphnia:	No data
Algae:	No data
Persistence and degradability :	Readily biodegradable
Bioaccumulative potential :	No data
Hazardous to the ozone layer:	Classification not possible

13. Disposal considerations

Disposal methods: When waste materials and waste water are to be treated, collect them into specified containers and entrust the disposal to a disposal contractor having an industrial waste disposal contractor permit.
Do not use the used containers for other purposes like filling other substances. Be sure to dispose of them after treating the content according to the above description. In case of recycling the container, return the container as it is after fitting a stopper without filling anything into it.

14. Transport information

International regulations	UN classification :	3	
	UN number :	3092	
	Proper shipping name :	1-METHOXY-2-PROPANOL	
	Packing group :	III	
Domestic restriction:	Transport the material in accordance with the regulations in your country or region.		
Specific security precaution and condition of transportation:	Load the containers in such a way as not to wet with water, fall down, tumble, or being damaged. Cover the loaded cargo to prevent direct sunlight.		
Emergency Response Guide (ERG) Numbers:	129		

15. Regulatory information

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

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16. Other information

Reference	Information obtained in NITE (National Institute of Technology and Evaluation) and other literature surveys.
Disclaimer	<p>About the description: This SDS was created in accordance with JIS Z 7253 based on the materials and data available at the time of creation.</p> <p>Detailed information such as composition and ingredients corresponding to overseas legal regulation registration confirmation etc. may not be described, so please contact our sales staff separately if necessary.</p> <p>Precautions are for normal handling. In case of special handling, it is the responsibility of the user to take safety measures suitable for the intended use and usage.</p> <p>We have paid close attention to the contents, but we do not guarantee the contents.</p> <p>This product can only be used for industrial purposes. If you want to use it for other purposes, please contact us in advance.</p>