

Safety Data Sheet

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

Product identifier:

Product name: Methanol

Product code (SDS NO): 73125jis_J_E1-4

Details of the supplier of the safety data sheet

Manufacturer/Supplier: JUNSEI CHEMICAL CO., LTD.

Address: 1-6, Ohmano-cho, Koshigaya-shi, Saitama 343-0844, Japan

Division: Quality Assurance Department

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2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture

PHYSICAL AND CHEMICAL HAZARDS

Flammable liquids: Category 2

HEALTH HAZARDS

Acute toxicity (Oral): Category 4

Serious eye damage/eye irritation: Category 2

Reproductive toxicity: Category 1B

Specific target organ toxicity – single exposure: Category 1 (central nervous system, visual organs, systemic toxicity)

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

Specific target organ toxicity – repeated exposure: Category 1 (central nervous system, visual organs)

(Note) GHS classification without description: Not classified/Classification not possible

Label elements



Signal word: Danger

HAZARD STATEMENT

H225-Highly flammable liquid and vapor

H302-Harmful if swallowed

H319-Causes serious eye irritation

H360-May damage fertility or the unborn child

H370-Causes damage to organs after single exposure

H336-May cause drowsiness or dizziness

H372-Causes damage to organs through prolonged or repeated exposure

PRECAUTIONARY STATEMENT

Prevention

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting equipment.

- Use only non-sparking tools.
- Take precautionary measures against static discharge.
- Do not breathe dust/fume/gas/mist/vapors/spray.
- Use only outdoors or in a well-ventilated area.
- Wash contaminated parts thoroughly after handling.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Use personal protective equipment as required.
- Do not eat, drink or smoke when using this product.

Response

- In case of fire: Use appropriate media other than water for extinction.
- Get medical advice/attention if you feel unwell.
- IF exposed or concerned: Get medical advice/attention.
- Call a POISON CENTER or doctor/physician if you feel unwell.
- IF exposed or concerned: Call a POISON CENTER or doctor/physician.
- IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- Take off immediately all contaminated clothing.
- 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 or doctor/physician if you feel unwell.

Storage

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

Disposal

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

Specific Physical and Chemical hazards

- Highly flammable liquid. Vapor/air mixture may explode.

3. Composition/information on ingredients**Mixture/Substance selection:****Substance**

Common name, synonyms: Methyl alcohol

Ingredient name: Methanol

Content (%): 99.6 <

Chemical formula: CH₄O

Chemicals No, Japan: 2-201

CAS No.: 67-56-1

MW: 32.04

ECNO: 200-659-6

4. First-aid measures**Descriptions of first-aid measures****General measures**

- Get medical attention/advice if you feel unwell.

IF INHALED

- Remove person to fresh air and keep comfortable for breathing.
- Call a POISON CENTER or doctor/physician if you feel unwell.

IF ON SKIN (or hair)

- Take off immediately all contaminated clothing.
- Take off immediately all contaminated clothing. Rinse skin with water/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.

Immediately give the person one or two glasses of water, to dilute the chemical, do not attempt to the victim vomit.

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

Most important symptoms and effects, both acute and delayed

(Symptoms when inhalation or ingestion)

Cough. Dizziness. Headache. Weakness. Visual disturbances. Drowsiness. Shortness of breath.

Convulsions. Unconsciousness. Abdominal pain.

(Symptoms when skin and/or eye contact)

Dry skin. Redness. Eye's pain. Blurred vision.

5. Fire-fighting measures**Extinguishing media****Suitable extinguishing media**

In case of fire, use water mist, alcohol-resistant foam, dry powder, CO2 to extinguish.

Unsuitable extinguishing media data is not available.

Specific hazards arising from the substance or mixture

Containers may explode when heated.

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

Runoff from fire control or dilution water may cause pollution.

Advice for firefighters**Specific fire-fighting measures**

Evacuate non-essential personnel to safe area.

Cool container with water spray.

Special protective equipment and precautions for fire-fighters

Wear fire/flame resistant/retardant clothing.

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

Firefighters should wear self-contained breathing apparatus with full face piece operated positive pressure mode.

6. Accidental release measures**Personnel precautions, protective equipment and emergency procedures**

Keep unauthorized personnel away.

In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.

Ventilate area until material pick up is complete.

Wear proper protective equipment.

PUBLIC SAFETY: Ventilate closed spaces before entering.

Environmental precautions

Avoid release to headsprings, rivers, lakes, ocean and groundwater.

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.

Use clean non-sparking tools to collect absorbed material.

All equipment used when handling the product must be grounded.

Preventive measures for secondary accident

Collect spillage.

Stop leak if you can do it without risk.

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
Prevent entry into waterways, sewers, basements or confined areas.

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/sparks/open flames/hot surfaces. – No smoking.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

(Exhaust/ventilator)

Exhaust/ventilator should be available.

(Safety treatments)

Avoid contact with skin.

Avoid contact with eyes.

Safety Measures

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Use only outdoors or in a well-ventilated area.

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

Use personal protective equipment as required.

When using do not eat, drink or smoke.

Any incompatibilities

Acids, Strong oxidizing agents, Reducing agents should not be mixed with the chemicals.

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

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

Keep cool. Protect from sunlight.

Store locked up.

Container and packaging materials for safe handling data is not available.

8. Exposure controls/personal protection

Control parameters

Control value

Japan control value (1995) \leq 200ppm

Adopted value

JSOH(1963) 200ppm; 260mg/m³

ACGIH(2008) TWA: 200ppm;

STEL: 250ppm (Headache; eye dam; dizziness; nausea)

Notation...Skin

OSHA-PEL

TWA: 200ppm, 260mg/m³

NIOSH-REL

TWA: 200ppm; STEL: 250ppm

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.
- Wear positive pressure self-contained breathing apparatus (SCBA).

Hand protection

- Wear protective gloves. Recommended material(s): butyl rubber
- Consult with your glove and/or personnel equipment manufacturer for selection of appropriate compatible materials.

Eye protection

- Wear safety glasses with side-shields.
- Wear eye/face protection.

Skin and body protection

- Wear impervious clothing and boots in case of repeated or prolonged treatment.

9. Physical and Chemical Properties**Information on basic physical and chemical properties**

Physical state: Volatile liquids

Color: Colorless, Clear

Odor: Characteristic odor

Odor threshold: 100ppm

pH data is not available.

Boiling point or initial boiling point: 65°C

Boiling range data is not available.

Melting point/Freezing point: -98°C

Decomposition temperature data is not available.

Self-Accelerating Decomposition Temperature/SADT data is not available.

Flammability (gases, liquids and solids): Ignitable

Flash point: (c.c.)9°C

Auto-ignition temperature: 440°C

Critical temperature data is not available.

Lower and upper explosion limit/flammability limit:

Lower explosion limit: 6 vol %

Upper explosion limit: 50vol %

Vapor pressure: 12.9 kPa (20°C)

Vapor density data is not available.

Relative vapor density (Air=1): 1.1

Relative density of the Vapor/air - mixture at 20°C (Air = 1): 1.01

Density and/or relative density: 0.7915(20/4°C)

Dynamic viscosity: 0.544mPas(25°C)

Kinematic viscosity data is not available.

Solubility:

Solubility in water: Miscible(1000g/L)

Solubility in solvent: Miscible with ethanol and diethyl ether.

n-Octanol/water partition coefficient: log Pow=0.74

No Particle characteristics data is not available.

10. Stability and Reactivity

Reactivity

Runaway polymerization will not occur.

Chemical stability

Stable under normal storage/handling conditions.

Highly flammable.

Possibility of hazardous reactions

The vapour mixes well with air, explosive mixtures are easily formed.

Reacts violently with strong oxidants, acids and reducing agents. This generates fire and explosion hazard.

Conditions to avoid

Contact with incompatible materials.

Open flames. Heat. Sparks.

Incompatible materials

Acids, Strong oxidizing agents, Reducing agents

Hazardous decomposition products

Carbon oxides

11. Toxicological Information

Information on toxicological effects

Acute toxicity

Acute toxicity (Oral)

[GHS Cat. Japan, base data]

human LD50=ca. 1400mg/kg (DFGOT vol.16, 2001)

Acute toxicity (Dermal)

[GHS Cat. Japan, base data]

(Methanol)

rabbit LD50=15800mg/kg (DFGOT vol.16, 2001)

Acute toxicity (Inhalation)

[GHS Cat. Japan, base data]

vapor: rat LC50>31500ppm/4hr (DFGOT vol.16, 2001)

Labor standard law, Japan; Toxic

Methanol

Irritant properties

Skin corrosion/irritation data is not available.

Serious eye damage/irritation

[GHS Cat. Japan, base data]

cat.2; rabbit : Draize test (EHC 196, 1997)

Allergenic and sensitizing effects data is not available.

Germ cell mutagenicity

[GHS Cat. Japan, base data]

mice_in vivo somatic cell mutagenicity tests : Negative (EHC 196, 1997)

Reverse-mutation assay in bacteria (Ames test) :Negative(EHC 196, 1997 et al.)

Chromosome aberration test :Negative(CHO cells; DFGOT vol.16, 2001)

Carcinogenic effects data is not available.

Reproductive toxicity

[GHS Cat. Japan, base data]

cat. 1B; mouse : PATTY 5th, 2001

STOT

STOT-single exposure

[cat.1]

[GHS Cat. Japan, base data]

CNS; organ of vision; systemic toxicity (DFGOT vol.16, 2001)

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

[GHS Cat. Japan, base data]

narcosis (PATTY 5th, 2001)

STOT-repeated exposure

[cat.1]

[GHS Cat. Japan, base data]

CNS; organ of vision (ACGIH 7th, 2001)

Aspiration hazard data is not available.

12. Ecological Information

Ecotoxicity

Aquatic toxicity

Hazardous to the aquatic environment (Acute)

[GHS Cat. Japan, base data]

Crustacea (Brine shrimp) LC50=900.73mg/L/24hr (EHC196, 1998)

Water solubility

1000 g/L(25°C) (PHYSPROP_DB)

Persistence and degradability

Persistence and degradability data is not available.

Bioaccumulative potential

log Pow=-0.74 (ICSC, 2018)

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., UN CLASS

UN No.: 1230

Proper Shipping Name : METHANOL

Class or division : 3

Subsidiary hazard(s) : 6.1

Packing group : II

ERG GUIDE No.: 131

IMDG Code (International Maritime Dangerous Goods Regulations)

UN No.: 1230

Proper Shipping Name : METHANOL

Class or division : 3

Subsidiary hazard(s) : 6.1

Packing group : II

IATA Dangerous Goods Regulations

UN No.: 1230
Proper Shipping Name : METHANOL
Class or division : 3
Subsidiary hazard(s) : 6.1
Hazard labels : Flamm.liquid & Toxic
Packing group : II

Environmental hazards

MARPOL Annex III – Prevention of pollution by harmful substances
Marine pollutants (yes/no) : no

15. Regulatory Information

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

Environmental hazards

MARPOL Annex V – Prevention of pollution by garbage discharge

Reproductive toxicity: cat.1, 1A, 1B

Methanol

Specific target organ toxicity – repeated exposure: cat.1

Methanol

Transport in bulk according to Annex II of MARPOL73/78 and IBC Code

Noxious Liquid ; Cat. Y

Methanol

Basel law, Japan

Methanol

US Federal Regulations

Chemicals listed in TSCA Inventory

Methanol

Superfund Amendments and Reauthorizations Act (SARA), Title III

SARA 313 (TRI) Reporting Year 2020

Methanol

Other regulatory information

We are not able to check up the regulatory information with regard to the substances in your country or region, therefore, we request this matter would be filled by your responsibility.

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

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

Regulatory information in this section are limited to intentional ingredient(s), but does not contain information on non-intentional ingredients or impurities which are not informed by supplier(s).

16. Other information

GHS classification and labelling

H225–Flam. Liq. 2: H225 Highly flammable liquid and vapor

H302–Acute Tox. 4: H302 Harmful if swallowed

H319–Eye Irrit. 2: H319 Causes serious eye irritation

H360–Repr. 1B: H360 May damage fertility or the unborn child

H370–STOT SE 1: H370 Causes damage to organs after single exposure

H336–STOT SE 3: H336 May cause drowsiness or dizziness

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

Reference Book

Globally Harmonized System of classification and labelling of chemicals, (6th ed., 2015), UN Recommendations on the TRANSPORT OF DANGEROUS GOODS 20th edit., 2017 UN IMDG Code, 2018 Edition (Incorporating Amendment 39-18)
IATA Dangerous Goods Regulations (61th Edition) 2020
Classification, labelling and packaging of substances and mixtures (Table 3 ECNO6182012)
2016 EMERGENCY RESPONSE GUIDEBOOK (US DOT)
2019 TLVs and BEIs. (ACGIH)
<http://monographs.iarc.fr/ENG/Classification/index.php>
JIS Z 7253 : 2019
JIS Z 7252 : 2019
2019 Recommendation on TLVs (JSOH)
Supplier's data/information
Chemicals safety data management system "GHS Assistant" (<https://www.asahi-ghs.com/>)
NITE Chemical Risk Information Platform (NITE-CHRIP)
https://www.nite.go.jp/en/chem/chrip/chrip_search/systemTop
GHS Classification Guidance for Enterprises 2013 Revised Edition (Aug. 2013, METI)

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 2018).