

## Safety Data Sheet

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

#### Product identifier:

Product name: 2-Ethoxyethyl acetate

Reference number(SDS):31065jis\_J\_E1-2

#### Product type:

Reagent

#### 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

Telephone number: +81-48-986-6161

FAX: +81-48-989-2787

e-mail address: shiyaku-t@junsei.co.jp

### 2. Hazards identification

#### GHS classification and label elements of the product

#### Classification of the substance or mixture

##### PHYSICAL AND CHEMICAL HAZARDS

Flammable liquids: Category 3

##### HEALTH HAZARDS

Acute toxicity (Inhalation): Category 4

Serious eye damage/eye irritation: Category 2B

Reproductive toxicity: Category 1B

Specific target organ toxicity – single exposure: Category 1(haemal system)

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

Specific target organ toxicity – repeated exposure: Category 1(haemal system, testis)

##### ENVIRONMENT HAZARDS

Hazardous to the aquatic environment (Acute): Category 3

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

#### Label elements



Signal word: Danger

#### HAZARD STATEMENT

H226-Flammable liquid and vapor

H332-Harmful if inhaled

H320-Causes eye irritation

H360-May damage fertility or the unborn child

H370-Causes damage to organs

H336-May cause drowsiness or dizziness

H372-Causes damage to organs through prolonged or repeated exposure

H402-Harmful to aquatic life

#### PRECAUTIONARY STATEMENT

##### Prevention

Obtain special instructions before use.

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

## 2-Ethoxyethyl acetate ,JUNSEI CHEMICAL CO., LTD.,31065jis\_J\_E1-2,23/Mar/2022

Avoid release to the environment.

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

Keep container tightly closed.

Ground and bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting equipment.

Use non-sparking tools.

Take action to prevent static discharges.

Do not breathe vapors.

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 to extinguish.

Get medical advice/attention if you feel unwell.

IF exposed or concerned: Get medical advice/attention.

Call a POISON CENTER/doctor/physician 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.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

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.

**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**

Flammable liquid. Vapor/air mixture may explode.

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

Common name, synonyms: Ethylene glycol monoethyl ether acetate

Ingredient name:2-Ethoxyethyl acetate

Content (%):99.0 <

Chemical formula:C6H12O3

Chemicals No, Japan:2-740

CAS No.:111-15-9

MW:132.16

ECNO:203-839-2

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

Get medical advice/attention if you feel unwell.

Keep victim warm and quiet.

Call emergency medical service.

Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

**IF INHALED**

Remove person to fresh air and keep comfortable for breathing.

Give artificial respiration if victim is not breathing.

Administer oxygen if breathing is difficult.

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.

Remove and isolate contaminated clothing and shoes.

In case of burns, immediately cool affected skin for as long as possible with child water.

Do not remove clothing if adhering to skin.

**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. Do NOT induce vomiting.

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

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

(Symptoms when inhalation or ingestion)

Nausea. Headache. Drowsiness. Dizziness. Unconsciousness. Vomiting.

(Symptoms when skin and/or eye contact)

Dry skin. Conjunctival redness of the eyes

※May be absorbed into the skin.

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

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

**Unsuitable extinguishing media**

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 resistant or flame 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.

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**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

Vapors may form explosive mixtures with air.

Vapor explosion hazard indoors, outdoors or in sewers.

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.

Keep out of low areas.

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## 7. Handling and storage

### Precautions for safe handling

#### Preventive measures

(Exposure Control for handling personnel)

Do not breathe vapors.

(Protective measures against fire and explosion)

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

Ground and bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting equipment.

Use non-sparking tools.

Take action to prevent static discharges.

(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

Strong acids, Strong bases, Strong oxidizing 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.

Keep cool. Protect from sunlight.

Store in accordance with local/national regulation.

Store locked up.

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

#### Specific end use(s)

See information in Section 7.1 and 7.2 for handling and storage recommendations. See

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## 8. Exposure controls/personal protection

### Control parameters

#### Control value

Japan control value (1995)  $\leq$  5ppm

#### Adopted value

JSOH(1985) 5ppm; 27mg/m<sup>3</sup> (dermal)

ACGIH(2003) TWA: 5ppm (Male repro dam)

Notation...Skin

### 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.

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.

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## 9. Physical and Chemical Properties

### Information on basic physical and chemical properties

Physical state: Liquid

Color: Colorless

Odor: Characteristic odor

Odor threshold data is not available.

Melting point/Freezing point:  $-62^{\circ}\text{C}$

Boiling point or initial boiling point:  $156^{\circ}\text{C}$

Boiling range data is not available.

Flammability (gases, liquids and solids): Ignitable

Lower and upper explosion limit/flammability limit:

Lower explosion limit: 1.3 vol %

Upper explosion limit: 14 vol %

Flash point: (c.c.)  $47^{\circ}\text{C}$

Auto-ignition temperature:  $379^{\circ}\text{C}$

Decomposition temperature data is not available.

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

pH data is not available.

Dynamic viscosity: 1.32mPas( $20^{\circ}\text{C}$ )

Kinematic viscosity: 1.35mm<sup>2</sup>/s( $20^{\circ}\text{C}$ )

Solubility:

Solubility in water: 23 g/100 ml ( $20^{\circ}\text{C}$ )

Solubility in solvent: Very soluble in ethyl alcohol, diethyl ether

n-Octanol/water partition coefficient: log Pow0.59

Vapor pressure: 0.27 kPa (20°C)

Vapor density data is not available.

VOC data is not available.

Evaporation rate data is not available.

Density and/or relative density: 0.972~0.977g/ml (20°C)

Relative vapor density (Air=1): 4.7

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

Critical temperature: 334°C

Particle characteristics data is not available.

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## 10. Stability and Reactivity

### Reactivity

Runaway polymerization will not occur.

### Chemical stability

Stable under normal storage/handling conditions.

Flammable.

### Possibility of hazardous reactions

May form explosive peroxides.

Reacts with strong acids, strong bases and strong oxidants.

### Conditions to avoid

Contact with incompatible materials.

Open flames. Heat. Sparks.

### Incompatible materials

Strong acids, Strong bases, Strong oxidizing agents

### Hazardous decomposition products

Carbon oxides

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## 11. Toxicological Information

### Information on toxicological effects

#### Acute toxicity

##### Acute toxicity (Oral)

[GHS Cat. Japan, base data]

rat LD50=2900~7500mg/kg (NITE Initial Risk Assessment Report, 2008)

##### Acute toxicity (Dermal)

[GHS Cat. Japan, base data]

rabbit LD50=10300~10500mg/kg (NITE Initial Risk Assessment Report, 2008)

##### Acute toxicity (Inhalation)

[GHS Cat. Japan, base data]

vapor: rat LC50=3166ppm/4hr (MOE risk assessment vol.11, 2013)

#### Irritant properties

##### Skin corrosion/irritation

[GHS Cat. Japan, base data]

rabbit (Draize test) : slight irritation (ECETOC TR 48, 1988)

##### Serious eye damage/irritation

[GHS Cat. Japan, base data]

rabbit (OECD TG 405, GLP) : symptoms disappear after 7 days (ECETOC TR 48, 1988)

Allergenic and sensitizing effects data is not available.

Mutagenic effects data is not available.

Carcinogenic effects data is not available.

#### Reproductive toxicity

[GHS Cat. Japan, base data]

cat. 1B; ECETOC TR95, 2005

## STOT

STOT-single exposure

[cat.1]

[GHS Cat. Japan, base data]

blood system (PATY 6th, 2012)

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

[GHS Cat. Japan, base data]

narcotic effect (MOE risk assessment vol.11, 2013)

STOT-repeated exposure

[cat.2]

[GHS Cat. Japan, base data]

blood system; testis (CICAD 67, 2010)

Aspiration hazard data is not available.

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12. Ecological Information

Ecotoxicity

Aquatic toxicity

H402-Harmful to aquatic life

Hazardous to the aquatic environment (Acute)

[GHS Cat. Japan, base data]

Fish (bluegill) LC50=41mg/L/96hr (MOE risk assessment, 2007)

Hazardous to the aquatic environment (Long-term)

[GHS Cat. Japan, base data]

Crustacea (Daphnia magna) NOEC=44mg/L/21days

(Eco-toxicity tests of chemicals conducted by MOE in Japan, 2002)

Water solubility

23 g/100 ml (20°C) (ICSC, 2003)

Persistence and degradability

BOD\_Degradation : 86.9%

(Biodegradation and Bioconcentration Results of Existing Chemical Substances under CSCL<sup>※</sup>, 1976)

Bioaccumulative potential

log Pow=0.59 (PHYSPROP DB, 2009)

Mobility in soil

Mobility in soil data is not available.

Other adverse effects

Ozone depleting chemical data is not available.

Additional data

※CSCL...Chemical Substances Control Law in Japan

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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

Avoid release to the environment.

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

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14. Transport Information

UN No., UN CLASS

UN No. or ID No.: 1172

UN Proper Shipping Name : ETHYLENE GLYCOL MONOETHYL ETHER ACETATE

Class or division (Transport hazard class) : 3

2-Ethoxyethyl acetate ,JUNSEI CHEMICAL CO., LTD.,31065jis\_J\_E1-2,23/Mar/2022

Packing group : III

ERG GUIDE No.: 129

IMDG Code (International Maritime Dangerous Goods Regulations)

UN No.: 1172

Proper Shipping Name : ETHYLENE GLYCOL MONOETHYL ETHER ACETATE

Class or division : 3

Packing group : III

IATA Dangerous Goods Regulations

UN No.: 1172

Proper Shipping Name : ETHYLENE GLYCOL MONOETHYL ETHER ACETATE

Class or division : 3

Hazard labels : Flamm.liquid

Packing group : III

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

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

2-Ethoxyethyl acetate

Specific target organ toxicity – repeated exposure: cat.1

2-Ethoxyethyl acetate

Maritime transport in bulk according to IMO instruments

Noxious Liquid ; Cat. Y

2-Ethoxyethyl acetate(Y-161)

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## 15. Regulatory Information

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

Chemicals listed in TSCA Inventory

2-Ethoxyethyl acetate

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).

Chemical safety assessment

Advice on safe handling for this product can be found in sections 7 and 8 of this SDS.

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## 16. Other information

GHS classification and labelling

H226-Flam. Liq. 3: H226 Flammable liquid and vapor

H332-Acute Tox. 4: H332 Harmful if inhaled

H320-Eye Irrit. 2B: H320 Causes eye irritation

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

H370-STOT SE 1: H370 Causes damage to organs

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

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

H402-Aquatic Acute 3: H402 Harmful to aquatic life

**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)  
JIS Z 7252 : 2019  
JIS Z 7253 : 2019  
2021 Recommendation on TLVs (JSOH)  
Supplier's data/information  
Chemicals safety data management system "GHS Assistant" Version 4.16 (<https://www.asahi-ghs.com/>)  
NITE Chemical Risk Information Platform "NITE-CHRIIP"  
([https://www.nite.go.jp/en/chem/chrip/chrip\\_search/systemTop](https://www.nite.go.jp/en/chem/chrip/chrip_search/systemTop))  
GHS Classification Guidance for Enterprises 2019 Revised Edition (Ver. 2.0) (Mar. 2020, METI)

**Definitions and Abbreviations**

SDS (Safety Data Sheet)  
LD50 (Lethal Dose, 50%)  
LC50 (Lethal Concentration, 50%)  
IARC (International Agency for Research on Cancer)  
ACGIH (American Conference of Governmental Industrial Hygienists)  
EPA (US Environmental Protection Agency)  
NTP (US National Toxicology Program)  
JSOH (Japan Society for Occupational Health)  
EU (European Union)  
EC50 (Effective Concentration, 50%)  
NOEC (No Observed Effect Concentration)  
BOD (Biochemical Oxygen Demand)  
COD (Chemical Oxygen Demand)  
BCF (Bioconcentration Factor)  
anh (anhydride)

**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 2020).