



Safety Data Sheet

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

Product identifier:

Product name: Ethyl lactate

Product code(SDS NO): 2971E-1

Details of the supplier of the safety data sheet

Manufacturer/Supplier: KISHIDA CHEMICAL CO., LTD.

Address: 3-1, Honmachibashi, Chuo-ku, Osaka 540-0029, JAPAN

Division: Safety Management Dept. of Chemicals

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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 3

HEALTH HAZARDS

Serious eye damage/eye irritation: Category 2

Specific target organ toxicity – single exposure: Respiratory tract irritation Category 3

(Note) GHS classification without description: Not applicable/Out of classification/Not classifiable

Label elements

Signal word: Warning

HAZARD STATEMENT

Flammable liquid and vapor

Causes serious eye irritation

May cause respiratory irritation

PRECAUTIONARY STATEMENT**Prevention**

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.

Avoid breathing dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

Wash contaminated parts thoroughly after handling.

Wear protective gloves and face protection.

Wear eye protection/face protection.

Response

In case of fire: Use appropriate media other than water for extinction.

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



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.

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.

Disposal

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

Physical and Chemical hazards

Flammable liquid. Vapor/air mixture may explode.

3. Composition/information on ingredients

Mixture/Substance selection:

Substance

Ingredient name: Ethyl lactate

Content(%): 98(min)

Chemical formula: C₅H₁₀O₃

Chemicals No, Japan: 2-1371

CAS No.: 97-64-3

MW: 118.13

ECNO: 202-598-0

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

4. First-aid measures

Descriptions of first-aid measures

General measures

Call a POISON CENTER or doctor/physician 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. 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.

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

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Use appropriate extinguishing media suitable for surrounding facilities.

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/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**

Ventilate area after material pick up is complete.

Wear proper protective equipment.

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)

Avoid breathing 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/Incompatibility

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.

Conditions for safe storage, including any incompatibilities**Recommendation for storage**

Keep container tightly closed.

Store in a cool, dry place. Do not store in direct sunlight.

8. Exposure controls/personal protection**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.
- Safety and Health measures
 - Wash ... thoroughly after handling.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical properties

- Appearance: Liquid
- Color: Colorless
- Odor: Characteristic odor

Phase change temperature

- Initial Boiling Point/Boiling point: 154.1°C
- Melting point/Freezing point: -26°C
- Decomposition temperature data N.A.
- Flash point: (Ethyl lactate) 59.0°C
- Auto-ignition temperature: 400°C

Explosive properties: Flammability or explosive limit

- Lower limit: 1.5 vol %
- Upper limit: 11.4 vol %

Vapor pressure: 0.279 kPa(20°C)

Vapor density data N.A.

Relative Vapor Density (Air=1): 4.1 g/L

Specific gravity/Density: 1.03

Solubility

Solubility in water: Soluble

n-Octanol /water partition coefficient data N.A.

10. Stability and Reactivity

Chemical stability

Stable under normal storage/handling conditions.

Conditions to avoid

- Contact with incompatible materials.
- Contact with fire source.

Incompatible materials

Strong acids, Strong bases

Hazardous decomposition products

Carbon oxides

11. Toxicological Information

Information on toxicological effects

No Acute toxicity data available

Irritant properties

Serious eye damage /irritation

[GHS Cat. Japan, base data]

(Ethyl lactate)

rabbit irritating (HSDB, 2002)

No Allergenic and sensitizing effects data available



No Mutagenic effects data available
No Carcinogenic effects data available
No Teratogenic effects data available
No reproductive toxicity data available
Delayed and immediate effects and also chronic effects from short- and long-term exposure
STOT

STOT-single exposure
[cat.3(resp. irrit.)]
[Japan published data]
(Ethyl lactate) Respiratory tract irritation (HSDB, 2002)

No Aspiration hazard data available

12. Ecological Information

Ecotoxicity
Aquatic toxicity
Aquatic acute toxicity component(s) data
[GHS Cat. Japan, base data]
(Ethyl lactate)
Fish (Danio rerio) LC50 = 320mg/L/96hr (AQUIRE, 2010)
Water solubility
(Ethyl lactate)
100 g/100 ml (PHYSPROP Database, 2010)
No Persistence and degradability data available
No Bioaccumulative potential data available
No Mobility in soil data available
Ozone depleting chemical data not available

13. Disposal considerations

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

14. Transport Information

UN number: 1192
UN proper shipping name:
ETHYL LACTATE
Transport hazard class(es): 3
Packing group: III
ERG GUIDE NO.: 129

15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture
US major regulations
TSCA
Ethyl lactate
Other regulatory information
Ensure this material in compliance with federal requirements and ensure conformity to local regulations.



16. Other information**GHS classification and labelling**

Flam. Liq. 3: H226 Flammable liquid and vapor
Eye Irrit. 2: H319 Causes serious eye irritation
STOT SE 3: H335 May cause respiratory irritation

Reference Book

Globally Harmonized System of classification and labelling of chemicals, (5th ed., 2013), UN
Recommendations on the TRANSPORT OF DANGEROUS GOODS 19th edit., 2015 UN
Classification, labelling and packaging of substances and mixtures (table 3-1 ECNO6182012)
2016 EMERGENCY RESPONSE GUIDEBOOK (US DOT)
2017 TLVs and BEIs. (ACGIH)
<http://monographs.iarc.fr/ENG/Classification/index.php>
Supplier's data/information
Hazard Communication Standard – 2012

General Disclaimer

This information contained in this data sheet represents the best information currently available to us. However, no warranty is made with respect to its completeness and we assume no liability resulting from its use. It is advised to make their own tests to determine the safety and suitability of each such product or combination for their own purposes.

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 2016).