

Safety Data Sheet

1. Chemical product and company identification

Product name : Ethyl acetate

Company information

Name of manufacturer : KANTO CHEMICAL CO., INC.
Address : 2-1, Nihonbashi, Muromachi 2-Chome, Chuo-Ku, Tokyo, 103-0022, Japan
Name of section : Electronic materials division technical department
Telephone number : +81-3-6214-1080
Facsimile number : +81-3-3241-1043
Mail address : el-info@kanto.co.jp
Reference No : GE00055 1.1
Recommended uses and restrictions : Electronic chemicals

2. Hazards identification

GHS classification

Physical hazards	Flammable liquids	Category 2
Health hazards	Acute toxicity (inhalation:vapors)	Category 4
	Serious eye damage/eye irritation	Category 2B
	Specific target organ toxicity (single exposure)	Category 3 (narcosis)
	Specific target organ toxicity (single exposure)	Category 3 (respiratory tract irritation.)

Hazard pictograms



Signal word : Danger

Hazard statements : Highly flammable liquid and vapor
Causes eye irritation
Harmful if inhaled
May cause respiratory irritation
May cause drowsiness or dizziness

Precautionary statements

Prevention : 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 only non-sparking tools.
Take action to prevent static discharges.
Avoid breathing mist/vapors.
Wash hands, forearms and face thoroughly after handling.
Use only outdoors or in a well-ventilated area.

- Wear protective gloves/protective clothing/eye protection/face protection.
- Response : IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water .
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Call a POISON CENTER or doctor if you feel unwell.
If eye irritation persists: Get medical advice/attention.
- Storage : Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.
- Disposal : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

3. Composition/information on ingredients

Distinction of substance or mixture : Substance

Chemical name	Concentration (%)	Formula	TSCA	EC-No.	CAS RN
Ethyl acetate	min. 99.0	CH ₃ COOCH ₂ CH ₃	Listed	205-500-4	141-78-6

4. First aid measures

First aid measures

- First-aid measures after inhalation : Remove the victim to fresh air, and make him blow his nose and gargle. If necessary, get medical treatment.
- First-aid measures after skin contact : Wash the affected areas under running water.
- First-aid measures after eye contact : Wash the affected areas under running water for at least 15 minutes. If necessary, get medical treatment.
- First-aid measures after ingestion : The chemical is volatile. Do not induce vomiting because it increases the risk of aspiration into the lungs. Get medical attention immediately. If necessary, rinse mouth with water.
- Personal Protection in First Aid and Measures : Rescuers should wear proper protective equipment like rubber gloves, goggles.

5. Fire fighting measures

- Suitable extinguishing media : Dry chemical, CO₂, dry sand, or alcohol-resistant foam
- Unsuitable extinguishing media : Water spray, Foam extinguisher
- Firefighting instructions : Move containers from fire area if it can be done without risk, if not possible, apply water from a safe distance to cool and protect surrounding area.
Fight fire from windward.
Dry chemical powder, carbon dioxide or dry sand should be used for small fires. Alcohol-resistant foam extinguisher is effective for a large scale fire.



Personal protection (Emergency response) : Wear breathing apparatus.

6. Accidental release measures

Personal Precautions, Protective Equipment and Emergency Procedures

General measures : Wear proper protective equipment and avoid contact with skin and inhalation of vapor. Conduct operations from upwind and evacuate people downwind. Remove all sources of ignition. Keep away personnel except for authorized ones from spillage area by stretching ropes.

Environmental precautions

Environmental precautions : Attention should be given to avoid discharge of spilled product into rivers and resulting environmental damage. When diluting spill with large amounts of water, discharge of untreated wastewater into the environment must be avoided.

Methods and Equipment for Containment and Cleaning up

For containment : Absorb spill with inert material (e.g. diatomaceous earth, sand) and flush spillage area with copious amounts of water.
Prevention Measures for Secondary Accidents : Remove nearby sources of ignition and prepare extinguishing media.

7. Handling and storage

Handling

Technical measures : Wear proper protective equipment to avoid contact with skin or inhalation of vapor. Fire is strictly prohibited.
Ventilate well at working places.
Prevent build-up of electrostatic charges (e.g. by grounding) .
Precautions for safe handling : Use with an enclosed system or a local exhaust ventilation. Use in well-ventilated areas.
Do not allow contact with oxidizing substances.

Storage

Storage conditions : Store in a dark, cool place and tightly closed.
Material used in packaging/containers : Glass, fluorine resin, stainless steel.
Do not use vinyl chloride resin, acrylic resin, polystyrene etc.

8. Exposure controls / Personal protection equipment

ACGIH TWA	400 ppm
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Appropriate engineering controls : Use with an enclosed system or a local exhaust ventilation.

Protective equipment

Respiratory protection : Chemical cartridge respirator with an organic vapor cartage or airline respirator
Hand protection : Impervious protective gloves
Eye protection : Safety goggles
Skin and body protection : Protective clothing, protective boots

9. Physical and chemical properties

Physical state	: Liquid
Color	: Colorless.
Odor	: Aromatic
pH	: No data available
Melting point	: -83.8 ° C
Freezing point	: No data available
Boiling point	: 77.1 ° C
Flash point	: -4 ° C (C.C.)
Auto-ignition temperature	: 425.5 ° C
Decomposition temperature	: No data available
Flammability	: Flammable
Vapor pressure	: 97 hPa (20°C)
Relative density	: No data available
Density	: 0.90 g/cm ³ (20°C)
Relative gas density	: 3.04
Solubility	: Organic solvents: Soluble in many kinds of organic solvents. Water: 8.08 % (25°C)
Partition coefficient n-octanol/water (Log Pow)	: 0.73
Explosive limits (vol %)	: 2.18 - 11.4 vol %
Viscosity, kinematic:	: 0.5 mm ² /s (20°C)
Particle characteristics	: No data available

10. Stability and reactivity

Reactivity	: May react with oxidizing substances.
Chemical stability	: Stable under normal conditions. It gradually decomposes due to humidity. Degradation is promoted in the presence of trace amounts of acids or bases.
Possibility of hazardous reactions	: Stable under normal conditions of use.
Conditions to avoid	: Light, heat.
Incompatible materials	: Oxidizing substances.
Hazardous decomposition products	: Carbon monoxide.

11. Toxicological information

Acute toxicity (oral)	: No classification rat LD50=5600mg/kg
Acute toxicity (dermal)	: No classification rabbit LD50>18000mg/kg
Acute toxicity (inhalation)	: No classification (gas) Harmful if inhaled Classification not possible (dust, mist)
Acute toxicity (vapor) - Description	: rat LC50=14640ppm/4h



Skin corrosion/irritation	: No classification In skin irritation tests, following 4-hour semi-occlusive application to the skin of rabbits (US Federal Register protocol), no skin reactions were observed.
Serious eye damage/irritation	: Causes eye irritation In rabbit eye irritation tests, transient irritation was observed, total scores of 24/48/72h (max. 110) were 18, 4, 2 and all responses disappeared within 7 days. Modified Maximum Average Score was 15 (maximum value=110). Thus, it was classified into category 2B.
Respiratory sensitization	: Classification not possible
Skin sensitization	: No classification Negative results were obtained in skin sensitization studies in guinea pigs (OECD TG406).
Germ cell mutagenicity	: No classification As for in vivo tests, there are negative data in micronucleus assay in mouse and hamster marrow cells following oral and intraperitoneal administration. As for in vitro tests, there are negative data in bacterial reverse mutation tests and chromosome aberration tests using cultured mammalian cells.
Carcinogenicity	: Classification not possible
Reproductive toxicity	: Classification not possible
STOT-single exposure	: May cause drowsiness or dizziness May cause respiratory irritation In a test in which 16 male volunteers were exposed to 402 ppm of the substance for 4 hours, the subjects experienced irritation of the eyes, mouth, and throat within the exposure time. In 6-hour single inhalation exposure studies in rats, symptoms of typical central nervous system depression such as loss of locomotion were observed, but up to 6,000 ppm (22.5 mg/L), no fatal cases were reported. Thus, it was classified into category 3 (narcosis, respiratory tract irritation).
STOT-repeated exposure	: No classification Only reduced body weight gain and decreased food consumption were observed at 3,600 mg/kg/day after oral administration to rats for 90 days. In addition, when rats were exposed by inhalation for 13 weeks (6 hours/day, 5 days/week), very slight to moderate degeneration of the nose was observed in males and females at or above 350 ppm. In humans, no symptoms were observed in workers exposed for several months at 375-1500 ppm. As for the oral route, it was not applicable to any hazard class. As for the inhalation route, there was a result showing effects on the respiratory organs within the range of category 1 by inhalation exposure with rats, but, it was reported that no symptoms were observed in humans at higher concentrations. Therefore, it was considered to be "No classification."
Aspiration hazard	: Classification not possible

12. Ecological information

Ecotoxicity

Aquatic acute	: No classification Pimephales promelas LC50=230mg/L/96h
Aquatic chronic	: No classification Daphnia magna NOEC=2.4mg/L/21-day

Persistence and degradability

Readily biodegradable
BOD : 66, 112, 105%

Bioaccumulative potential

Low bioconcentration
log Pow : 0.73

Mobility in soil

High mobility
Koc : 5.6

Hazardous to the ozone layer

Ozone : Classification not possible

13. Disposal considerations

Ecology - waste materials : Burn in a chemical incinerator equipped with an afterburner and a scrubber. Or entrust approved waste disposal companies with the disposal.

Contaminated container and packaging : In case of disposal of empty bottles, dispose bottles after removing the content thoroughly.

14. Transport information**International Regulations****Transport by sea (IMDG)**

UN-No. (IMDG) : 1173
Proper Shipping Name (IMDG) : ETHYL ACETATE
Packing group (IMDG) : II
Transport hazard class(es) (IMDG) : 3

Air transport (IATA)

UN-No. (IATA) : 1173
Proper Shipping Name (IATA) : Ethyl acetate
Packing group (IATA) : II
Transport hazard class(es) (IATA) : 3

Marine pollutant : Not applicable

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Pollutant category : Z
MFAG-No : 129

15. Regulatory information

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

16. Other information

Data sources : Dictionary of Organic Compounds, The society of Synthetic Organic Chemistry, Kodansha Ltd. (1985) .
Dangerous Properties of Industrial Materials, 6th ed. N. I. Sax Van Nostrand Reinhold Company (1984) .
Handbook of Dangerous Substances Springer-Verlag Tokyo (1991) .



Handbook of 17322 Chemical Products, The Chemical Daily Co.
(2022) .
NITE Chemical Risk Information Platform (NITE-CHRIP), National
Institute of Technology and Evaluation.

The information contained herein is based on several references and the present state of our knowledge. However the SDS does not always cover all information about the product, handle the product carefully. The information is intended to ordinary usage, in case of particular handlings, conduct appropriate safety measurements. The information herein is only provision of information, and it does not represent a guarantee the properties of the product. The Safety Data Sheet (SDS) is prepared based on JIS Z7253.

