

Safety Data Sheet

1. Chemical product and company identification

Product name : Denaturated Ethanol

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 : GE00018 1.2
 Recommended uses and restrictions : Electronic chemicals

2. Hazards identification

GHS classification

Physical hazards	Flammable liquids	Category 2
Health hazards	Serious eye damage/eye irritation	Category 1
	Carcinogenicity	Category 1A
	Reproductive toxicity	Category 1A
	Specific target organ toxicity (single exposure)	Category 2 (central nervous system, systemic toxicity)
	Specific target organ toxicity (single exposure)	Category 3 (narcosis)
	Specific target organ toxicity (single exposure)	Category 3 (respiratory tract irritation.)
	Specific target organ toxicity (repeated exposure)	Category 1 (liver)
	Specific target organ toxicity (repeated exposure)	Category 2 (blood, central nervous system)

Hazard pictograms



Signal word : Danger

Hazard statements : Highly flammable liquid and vapor
 Causes serious eye damage
 May cause respiratory irritation
 May cause drowsiness or dizziness
 May cause cancer
 May damage fertility or the unborn child
 May cause damage to organs (central nervous system, systemic toxicity)
 Causes damage to organs (liver) through prolonged or repeated exposure

May cause damage to organs (blood, central nervous system) through prolonged or repeated exposure

Precautionary statements

Prevention	: Do not handle until all safety precautions have been read and understood. 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. Do not breathe mist, vapors. Wash hands, forearms and face thoroughly after handling. Do not eat, drink or smoke when using this product. 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. IF exposed or concerned: Call a POISON CENTER or doctor. IF exposed or concerned: Get medical advice/attention. Immediately call a POISON CENTER or doctor. Call a POISON CENTER or doctor if you feel unwell. Get medical advice/attention if you feel unwell.
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 : Mixture
mixture

Chemical name	Concentration (%)	Formula	TSCA	EC-No.	CAS RN
Ethanol	about 85	C ₂ H ₅ OH	Listed	200-578-6	64-17-5
2-Propanol	less than 5	(CH ₃) ₂ CHOH	Listed	200-661-7	67-63-0
1-Propanol	about 10	CH ₃ CH ₂ CH ₂ OH	Listed	200-746-9	71-23-8

4. First aid measures

First aid measures

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical treatment if you feel



- unwell.
- First-aid measures after skin contact : Remove contaminated clothing and the substance. Wash with plenty of water. Get medical attention, if you feel unwell.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Get medical treatment.
- First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Get medical attention immediately.
- 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 powder, water-soluble fire-extinguishing foam for liquid, water spray, carbon dioxide
- Unsuitable extinguishing media : 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.
- 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) : Firefighters should wear protective equipment.

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 damage to the environment by flowing of spillage to rivers.

Methods and Equipment for Containment and Cleaning up

- For containment : Shut down the leak source to stop leakage. For small spill, absorb spill with dry sand, earth, sawdust, or cloth and place in sealed container. For large spill, dike area to prevent spill from spreading and then collect it.
- Prevention Measures for Secondary Accidents : Absorb vapor by misting with water.

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.
- Wash hands, a face, and gargle after handling.
- Prevent build-up of electrostatic charges (e.g. by grounding) .



Use explosion-proof electric apparatus.
 Precautions for safe handling : Use with an enclosed system or a local exhaust ventilation.
 Do not allow contact with oxidizing substances.

Storage

Storage conditions : Keep the bottle tightly closed and store in a cool place. Keep away from fire and heat sources.
 Do not store with acid substances.
 Material used in packaging/containers : Glass, SUS.

8. Exposure controls / Personal protection equipment

Ethanol	
ACGIH	TWA -, STEL 1000 ppm
2-Propanol	
ACGIH	TWA 200 ppm, STEL 400 ppm
1-Propanol	
ACGIH	TWA 100 ppm, STEL -

Appropriate engineering controls : Install a local ventilation system in case of vapor, fume or mist condition.

Protective equipment

Respiratory protection : Chemical cartridge respirator with an organic vapor cartage or airline respirator
 Hand protection : Organic solvents resistant 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 : No data available
 Freezing point : No data available
 Boiling point : No data available
 Flash point : 14.1 ° C
 Auto-ignition temperature : No data available
 Decomposition temperature : No data available
 Flammability : No data available
 Vapor pressure : No data available
 Relative density : No data available
 Density : 0.79 g/cm³ (20°C)
 Relative gas density : No data available
 Solubility : Water: Miscible.
 Partition coefficient n-octanol/water (log Pow) : No data available

Explosive limits (vol %) : No data available
Viscosity, kinematic: : No data available
Particle characteristics : No data available

10. Stability and reactivity

Reactivity : May react with oxidizing substances.
Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions : No data available
Conditions to avoid : Light, heat.
Incompatible materials : Oxidizing substances.
Hazardous decomposition products : Carbon monoxide.

11. Toxicological information

Acute toxicity (oral) : No classification
Acute toxicity (dermal) : No classification
Acute toxicity (inhalation) : No classification (gas)
Classification not possible (vapor)
Classification not possible (dust, mist)
Skin corrosion/irritation : No classification
Serious eye damage/irritation : Causes serious eye damage
Respiratory sensitization : Classification not possible
Skin sensitization : Classification not possible
Germ cell mutagenicity : Classification not possible
Carcinogenicity : May cause cancer
Reproductive toxicity : May damage fertility or the unborn child
STOT-single exposure : May cause damage to organs (central nervous system, systemic toxicity)
May cause drowsiness or dizziness
May cause respiratory irritation
STOT-repeated exposure : Causes damage to organs (liver) through prolonged or repeated exposure
May cause damage to organs (blood, central nervous system) through prolonged or repeated exposure
Aspiration hazard : Classification not possible

12. Ecological information

Ecotoxicity

Aquatic acute : No classification
Aquatic chronic : No classification

Persistence and degradability

Persistence and degradability High biodegradability.

Bioaccumulative potential

Bioaccumulative potential No data available



Mobility in soil

Mobility in soil : No data available

Hazardous to the ozone layerOzone : Classification not possible
Other adverse effects : No additional information available**13. Disposal considerations**Ecological waste information : 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) : 1993
Proper Shipping Name (IMDG) : FLAMMABLE LIQUID, N. O. S.
Packing group (IMDG) : II
Transport hazard class(es) : 3

(IMDG)

Air transport(IATA)UN-No. (IATA) : 1993
Proper Shipping Name (IATA) : Flammable liquid, n. o. s.
Packing group (IATA) : II
Transport hazard class(es) : 3

(IATA)

Marine pollutant : Not applicable

MFAG-No : 128

15. Regulatory information

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

16. Other informationData sources : Solvents Handbook, T, Asahara et al, Kodansha Scientific Ltd. (1976)
Dangerous Properties of Industrial Materials, 6th ed. N. I. Sax Van Nostrand Reinhold Company (1984)
Handbook of 17322 Chemical Products, The Chemical Daily Co. (2022)
ICSC Card (2009)
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.

