

Safety Data Sheet

1. Product and company identification

Product name : Denaturated Ethanol
Name of manufacturer : KANTO CHEMICAL CO., INC.
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SDS No. : GE00018

2. Summary of danger and Hazard

GHS classification

Physical and chemical hazard

Flammable liquids : Category 2
Pyrophoric liquids : Out of category
Self-heating substances and mixtures : Out of category

Human health hazard

Acute toxicity(oral) : Out of category
Acute toxicity(dermal) : Out of category

Skin corrosion/irritation : Out of category

Serious eye damage/eye irritation : Category 1

Carcinogenicity : Category 1A

Reproductive toxicity : Category 1A

Specific target organ systemic toxicity(single exposure) : Category 2、 Category 3 (respiratory tract irritation) 、 Category 3 (anesthetic action)

Specific target organ systemic toxicity(repeated exposure) : Category 1 、 Category 2

Environmental hazard

Hazardous to the aquatic environment-acute hazard : Out of category

Hazardous to the aquatic environment-chronic hazard : Out of category

Pictogram or symbol



Signal word	: Danger
Hazard statement	: Highly flammable liquid and vapor Causes serious eye damage May cause cancer May damage fertility or the unborn child May cause damage to organs (central nervous system, systemic toxicity) May cause respiratory irritation May cause drowsiness and dizziness Causes damage to organs (liver) through prolonged or repeated exposure May cause damage to organs (blood, central nervous system) through prolonged or repeated exposure
Cautions	
Safety measurements	: Do not handle until all safety precautions have been read and understood. Keep away from ignition sources such as heat, sparks, or open flame. Keep containers tightly closed. Ground container and receiving equipment in case of transport and stirring. Use explosion-proof apparatus. Use only non-sparking tools. Do not breathe dust, mist, and vapor. Use only in a well-ventilated area. Do not eat, drink or smoke when using this product. Wear appropriate protective gloves, glasses, clothing, face shield, or mask. Wash hands thoroughly after handling.
First-aid measures	: If inhaled : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical treatment if you feel unwell. If in eyes : Rinse cautiously with water for several minutes. Get medical treatment. If on skin : Remove contaminated clothing and the substance. Immediately get medical treatment. If exposed, get medical treatment. Get medical treatment, if you feel unwell.
Storage	: Tightly container closed and store in a well-ventilated area. Store locked up.
Disposal	: Dispose of contents and containers appropriately in accordance with related regulations.

3. Composition/Information on ingredients

Substance/Mixture	: Mixture
Ingredients and composition	: Ethanol about 85% 2-propanol less than 5%

1-propanol about 10%

Chemical formula : Ethanol C₂H₅OH
2-propanol (CH₃)₂CHOH
1-propanol CH₃CH₂CH₂OH

CAS No. : Ethanol 64-17-5
2-propanol 67-63-0
1-propanol 71-23-8

TSCA Inventory : Registered

Dangerous and hazardous ingredients : Ethanol, 2-propanol, 1-propanol

4. First aid measures

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical treatment if you feel unwell.

Skin contact : Remove contaminated clothing and the substance. Wash with plenty of water. Get medical attention, if you feel unwell.

Eye contact : Rinse cautiously with water for several minutes. Get medical treatment.

Ingestion : Rinse mouth. Do not induce vomiting. Get medical attention immediately.

Protection for first aid person

: Rescuers should wear proper protective equipment like rubber gloves, goggles.

5. Fire fighting measures

Extinguishing media : Dry chemical powder, water-soluble fire-extinguishing foam for liquid, water spray, carbon dioxide

Prohibited extinguishing media

: Foam extinguisher

Particular fire fighting : 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.

Protection for firefighters

: Firefighters should wear protective equipment.

6. Accidental release measures

Cautions for personnel : 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.

Cautions for environment : Attention should be given to avoid damage to the environment by flowing of spillage to rivers.

Removal measure : 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 of second accident

: Absorb vapor by misting with water.

7. Cautions of handling and storage

Handling

Engineering 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.

Cautions for safety handling

: Use with an enclosed system or a local exhaust ventilation.

Cautions

: Do not allow contact with oxidizing substances.

Storage

Adequate storage condition

: Keep the bottle tightly closed and store in a cool place. Keep away from fire and heat sources.

Do not store with acid substances.

Safety adequate container materials

: Glass, SUS

8. Exposure control/Personal protection

Engineering measures : Install a local ventilation system in case of vapor, fume or mist condition.

Control parameters

ACGIH(2015) : Ethanol 1000ppm(TLV-STEL)

2-Propanol 200ppm(TLV-TWA)

2-Propanol 400ppm (TLV-STEL)

1-Propanol 100ppm(TLV-TWA)

Protective equipment

Respiration protective equipment

: Chemical cartridge respirator with an organic vapor cartage or airline respirator

Hands protective equipment

: Organic solvents resistant gloves

Eyes protective equipment

: Safety goggles

Skin and body protective equipment

: Protective clothing, protective boots

9. Physical and chemical properties

Appearance : Liquid

Color : Colorless
Odor : Aromatic odor
pH : Not available
Boiling point : Not available
Melting point : Not available
Flash point : 14.1°C
Auto-ignition point : Not available
Explosion characteristics
Explosion limit : Not available
Vapor pressure : Not available
Vapor density : Not available
Density : 0.79g/cm³ (20°C)
Solubility
Solubility in solvents : Water ; Miscible

10. Stability and reactivity

Stability : Stable under normal conditions.
Reactivity : May react with oxidizing substances.
Incompatible conditions : Light, heat
Incompatible materials : Oxidizing substances
Hazardous decomposition products
: Carbon monoxide

11. Toxicological information

Acute toxicity : Oral : Out of category
Dermal : Out of category
Inhalation(vapor) : Not possible to classify because of insufficient data.
Inhalation(dust, mist) : Not possible to classify because of insufficient data.
Skin corrosion/irritation : Out of category
Serious eye damage/eye irritation
: Causes serious eye damage(category 1)
Respiratory sensitization or Skin sensitization
: Respiratory sensitization : Not possible to classify because of insufficient data.
Skin sensitization : Not possible to classify because of insufficient data.
Mutagenicity : Not possible to classify because of insufficient data.
Carcinogenic effects : May cause cancer(category 1A)
Effects on the reproductive system
: May damage fertility or the unborn child(category 1A)
Specific target organ systemic toxicity single exposure
: May cause damage to organs (central nervous system, systemic toxicity)(category 2)

May cause respiratory irritation(category 3) · May cause drowsiness and dizziness(category 3)

Specific target organ systemic toxicity repeated exposure

: Cause damage to organs (liver) through prolonged or repeated exposure(category 1)

May cause damage to organs (blood, central nervous system) through prolonged or repeated exposure(category 2)

Aspiration hazard : Not possible to classify because of insufficient data.

12. Ecological information

Ecotoxicity

Fish toxicity : Acute aquatic toxicity : Out of category
Chronic aquatic toxicity : Out of category
Low toxicity to aquatic organisms.

Persistence and degradability

: High biodegradability

13. Disposal consideration

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

Containers : In case of disposal of empty bottles, dispose bottles after removing the content thoroughly.

14. Transport information

UN class : Class 3(Flammable liquids) P. G. II

UN number : 1993

Marine regulation information

UN No. : 1993

Proper shipping name : FLAMMABLE LIQUID, N. O. S.

Class : 3

Sub risk : -

Packing group : II

Marine pollutant : Not applicable

Aviation regulation information

UN No. : 1993

Proper shipping name : Flammable liquid, n. o. s.

Class : 3

Sub risk : -

Packing group : II

15. Regulatory information

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

16. Other information

References : 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 16817 Chemical Products, The Chemical Daily Co. (2017)

ICSC Card (2009)

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, and it has the same required elements on the Material Safety Data Sheet (MSDS) which is prepared based on JIS Z7250:2010.