

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 06.14.2017

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Denatured Ethanol

SECTION 1: Identification

Product identifier

Product name: Denatured Ethanol

Product code: ET1020

Recommended use of the product and restriction on use

Relevant identified uses: Laboratory Chemicals

Uses advised against: Not determined or not applicable.

Reasons why uses advised against: Not determined or not applicable.

Manufacturer or supplier details

Supplier:

United States

AquaPhoenix Scientific

860 Gitts Run Road

Hanover, PA 17331

(717) 632-1291

Emergency telephone number:

Canada

ChemTel: (24-hour)

+1(800)255-3924

+1(813)248-0585 (International)

SECTION 2: Hazard(s) identification

GHS classification:

Flammable liquids, category 2

Specific target organ toxicity - single exposure, category 1

Eye irritation, category 2A

Label elements

Hazard pictograms:



Signal word: Danger

Hazard statements:

H225 Highly flammable liquid and vapor

H370 Causes damage to organs

H319 Causes serious eye irritation

Precautionary statements:

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking

P270 Do not eat, drink or smoke when using this product

P233 Keep container tightly closed

P240 Ground/bond container and receiving equipment

P241 Use explosion-proof electrical/ventilating/light/equipment

P242 Use only non-sparking tools

P243 Take precautionary measures against static discharge

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P280 Wear protective gloves/protective clothing/eye protection/face protection

P260 Do not breathe dust/fume/gas/mist/vapors/spray

P264 Wash skin thoroughly after handling

P303+P361+P353 If on skin (or hair): Immediately remove/take off all contaminated clothing. Rinse skin with water/shower

P370+P378 In case of fire: Use agents recommended in section 5 for extinction

P321 Specific treatment (see supplemental first aid instructions on this label).

P307+P311 If exposed: Call a poison center or doctor/physician

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing

P403+P235 Store in a well ventilated place. Keep cool

P405 Store locked up

P501 Dispose of contents and container as instructed in Section 13

Hazards not otherwise classified: None

SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 64-17-5	Ethanol	>50
CAS number: 67-63-0	Propan-2-ol	<10
CAS number: 67-56-1	Methanol	<5

Additional Information: None

SECTION 4: First aid measures

Description of first aid measures

General notes:

Not determined or not applicable.

After inhalation:

Loosen clothing as necessary and position individual in a comfortable position

Maintain an unobstructed airway

After skin contact:

Rinse affected area with soap and water

If symptoms develop or persist, seek medical attention

After eye contact:

Rinse/flush exposed eye(s) gently using water for 15-20 minutes

If symptoms develop or persist, seek medical attention

Remove contact lens(es) if able to do so during rinsing

Seek medical attention if irritation persists or if concerned

After swallowing:

Rinse mouth thoroughly

Seek medical attention if irritation, discomfort, or vomiting persists

Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:

Not determined or not applicable.

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Delayed symptoms and effects:

Not determined or not applicable.

Immediate medical attention and special treatment**Specific treatment:**

Not determined or not applicable.

Notes for the doctor:

Not determined or not applicable.

SECTION 5: Firefighting measures

Extinguishing media**Suitable extinguishing media:**

Use dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam

Unsuitable extinguishing media:

Not determined or not applicable.

Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors

Vapors can flow to distant ignition sources and flashback

Liquid is volatile and may generate an explosive atmosphere

Special protective equipment for firefighters:

Wear protective eye wear, gloves and clothing

Refer to Section 8

Special precautions:

Avoid inhaling gases, fumes, dust, mist, vapor and aerosols

Avoid contact with skin, eyes and clothing

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Beware of vapors accumulating to form explosive concentrations

Vapors can accumulate in low areas

Ensure adequate ventilation

Ensure air handling systems are operational

Environmental precautions:

Should not be released into the environment

Prevent from reaching drains, sewer or waterway

Methods and material for containment and cleaning up:

Wear protective eye wear, gloves and clothing

Use spark-proof tools and explosion-proof equipment

Reference to other sections:

Not determined or not applicable.

SECTION 7: Handling and storage

Precautions for safe handling:

Do not eat, drink, smoke or use personal products when handling chemical substances.

Avoid breathing mist or vapor.

Use only non-sparking tools.

Take precautionary measures against electrostatic discharges.

Conditions for safe storage, including any incompatibilities:

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Store in a cool, well-ventilated area.

Keep container tightly sealed.

Keep away from all ignition sources: open flames, hot surfaces, direct sunlight, spark sources.

Store locked up.

Use appropriate containment to avoid environmental contamination.

Protect from freezing and physical damage.

SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
ACGIH	Ethanol	64-17-5	ACGIH TLV TWA 1,000 ppm
	Methanol	67-56-1	ACGIH TLV STEL 250 ppm [skin]
	Methanol	67-56-1	ACGIH TLV TWA 200 ppm [skin]
	Ethanol	64-17-5	ACGIH TLV STEL 1,000 ppm
	Propan-2-ol	67-63-0	ACGIH TLV STEL 400 ppm
	Propan-2-ol	67-63-0	ACGIH TLV TWA 200 ppm
NIOSH	Propan-2-ol	67-63-0	NIOSH STEL 500 ppm, 1,225 mg/m ³
	Propan-2-ol	67-63-0	NIOSH TWA 400 ppm, 980 mg/m ³
	Methanol	67-56-1	NIOSH REL TWA 200 ppm [skin]
	Methanol	67-56-1	NIOSH REL TWA 260 mg/m ³ [skin]
	Methanol	67-56-1	NIOSH REL ST 250 ppm [skin]
	Methanol	67-56-1	NIOSH REL ST 325 mg/m ³ [skin]
	Ethanol	64-17-5	NIOSH REL TWA 1,000 ppm
	Ethanol	64-17-5	NIOSH REL TWA 1,900 mg/m ³
	Propan-2-ol	67-63-0	NIOSH IDLH 2,000 ppm
United States (OSHA)	Propan-2-ol	67-63-0	OSHA PEL TWA 400 ppm, 980 mg/m ³
	Methanol	67-56-1	OSHA PEL TWA 200 ppm
	Methanol	67-56-1	OSHA PEL TWA 260 mg/m ³
	Ethanol	64-17-5	OSHA PEL TWA 1,000 ppm
	Ethanol	64-17-5	OSHA PEL TWA 1,900 mg/m ³

Biological limit values:

Substance	Identifier	Determinant	Sampling time	Permissible limits
Propan-2-ol	67-63-0	Acetone	End of shift at end of workweek.	40 mg/L

Information on monitoring procedures:

Not determined or not applicable.

Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

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Use explosion-proof ventilation equipment.

Personal protection equipment

Eye and face protection:

Safety goggles or glasses, or appropriate eye protection.

Skin and body protection:

Select glove material impermeable and resistant to the substance.

Respiratory protection:

When necessary, use NIOSH-approved breathing equipment.

General hygienic measures:

Wash hands before breaks and at the end of work.

Avoid contact with skin, eyes and clothing.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Liquid. Colorless liquid / invisible vapor
Odor	Sweet, alcohol-like
Odor threshold	Not determined or not available.
pH	Not determined or not available.
Melting point/freezing point	-114 °C (-173 °F)
Initial boiling point/range	78 °C (173 °F)
Flash point (closed cup)	14 °C (58 °F) - closed cup
Evaporation rate	Specific data not available - expected to be rapid.
Flammability (solid, gas)	Flammable
Upper flammability/explosive limit	24.5% (V)
Lower flammability/explosive limit	3.3% (V)
Vapor pressure	59.5 hPa (44.6 mmHg) at 20 °C (68 °F) (for 100% ethanol)
Vapor density	1.6
Density	Not determined or not available.
Relative density	0.785 g/mL at 25 °C (77 °F)
Solubilities	Not determined or not available.
Partition coefficient (n-octanol/water)	Not determined or not available.
Auto/Self-ignition temperature	363 °C (685.4 °F) - (Ethyl Alcohol)
Decomposition temperature	Not pertinent
Dynamic viscosity	Not determined or not available.
Kinematic viscosity	Not determined or not available.
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

Other information

SECTION 10: Stability and reactivity

Reactivity:

Does not react under normal conditions of use and storage.

Chemical stability:

Stable under normal conditions of use and storage.

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Possibility of hazardous reactions:

Vapors may form explosive mixture with air.

Conditions to avoid:

Heat, flames, and sparks.

Extreme temperatures and direct sunlight.

Incompatible materials:

Alkali metals, Ammonia, Oxidizing agents, Peroxides, Strong Inorganic Acids

Hazardous decomposition products:

Hazardous decomposition products formed under fire conditions - Carbon oxides

SECTION 11: Toxicological information

Acute toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Skin corrosion/irritation

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Serious eye damage/irritation

Assessment: Causes serious eye irritation

Product data: No data available.

Substance data:

Name	Result
Propan-2-ol	Causes serious eye irritation.

Respiratory or skin sensitization

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Carcinogenicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

International Agency for Research on Cancer (IARC):

Name	Classification
Ethanol	Group 1 - Carcinogenic to humans
Propan-2-ol	Group 3 - Not classifiable as to its carcinogenicity to humans

National Toxicology Program (NTP): None of the ingredients are listed.

Germ cell mutagenicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Reproductive toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

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Specific target organ toxicity (single exposure)

Assessment: Causes damage to organs

Product data: No data available.

Substance data:

Name	Result
Propan-2-ol	Specific Target Organ Toxicity, Single Exposure - May cause drowsiness or dizziness.
Methanol	Causes damage to the optic nerve and central nervous system.

Specific target organ toxicity (repeated exposure)

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Aspiration toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Information on likely routes of exposure: No data available.

Symptoms related to the physical, chemical and toxicological characteristics: No data available.

Other information: No data available.

SECTION 12: Ecological information

Acute (short-term) toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Chronic (long-term) toxicity

Product data: No data available.

Substance data: No data available.

Persistence and degradability

Product data: No data available.

Substance data: No data available.

Bioaccumulative potential

Product data: No data available.

Substance data: No data available.

Mobility in soil

Product data: No data available.

Substance data: No data available.

Other adverse effects: No data available.

SECTION 13: Disposal considerations

Disposal methods:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11)

SECTION 14: Transport information

United States Transportation of dangerous goods (49 CFR DOT)


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UN number	1987
UN proper shipping name	Alcohols, N.O.S. Ethanol, Isopropanol, Methanol
UN transport hazard class(es)	3 
Packing group	II
Environmental hazards	None
Special precautions for user	None
Passenger air/rail	5 L
Cargo aircraft only	60 L
Stowage category	B

International Maritime Dangerous Goods (IMDG)

UN number	1987
UN proper shipping name	Alcohols, N.O.S. Ethanol, Isopropanol, Methanol
UN transport hazard class(es)	3 
Packing group	II
Environmental hazards	None
Special precautions for user	None
EmS number	F-E, S-D
Stowage category	Category B
Excepted quantities	E2
Limited quantity	1 L

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	1987
UN proper shipping name	Alcohols, N.O.S. Ethanol, Isopropanol, Methanol
UN transport hazard class(es)	3 
Packing group	II
Environmental hazards	None
Special precautions for user	None
ERG code	3L
Excepted quantities	E2
Passenger and cargo	5 L
Cargo aircraft only	60 L
Limited quantity	1 L

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Bulk Name	None
Ship type	None
Pollution category	None

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SECTION 15: Regulatory information

United States regulations

Inventory listing (TSCA):

64-17-5	Ethanol	Listed
67-63-0	Propan-2-ol	Listed
67-56-1	Methanol	Listed

Significant New Use Rule (TSCA Section 5): Not determined.

Export notification under TSCA Section 12(b): Not determined.

SARA Section 311/312 hazards:

Acute	Chronic	Fire	Pressure	Reactive
No	No	No	No	No

SARA Section 302 extremely hazardous substances: Not determined.

SARA Section 313 toxic chemicals:

67-63-0	Propan-2-ol	Not Listed
67-56-1	Methanol	Not Listed

CERCLA: Not determined.

RCRA: Not determined.

Section 112(r) of the Clean Air Act (CAA): Not determined.

Massachusetts Right to Know:

67-56-1	Methanol	Listed
67-63-0	Propan-2-ol	Listed
64-17-5	Ethanol	Listed

New Jersey Right to Know:

67-56-1	Methanol	Listed
67-63-0	Propan-2-ol	Listed
64-17-5	Ethanol	Not Listed

New York Right to Know:

67-56-1	Methanol	Listed
67-63-0	Propan-2-ol	Listed
64-17-5	Ethanol	Listed

Pennsylvania Right to Know:

67-56-1	Methanol	Listed
67-63-0	Propan-2-ol	Listed
64-17-5	Ethanol	Listed

California Proposition 65:

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

67-56-1	Methanol
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SECTION 16: Other information

Abbreviations and Acronyms: None

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Disclaimer:

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

NFPA: 1-3-0

HMIS: 1-3-0

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End of Safety Data Sheet