

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name	Denatured Ethanol with n-Heptane, 200 Proof
CAS number	64-17-5
Synonyms	CDA 12A-1

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Industrial, Laboratory chemicals.
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1.3 Details of the supplier of the safety data sheet

Company	Lab Alley, LLC 12501 Pauls Valley Road Austin, Texas 78737 U.S.A.
Telephone	512-668-9918
Fax	512-886-4008

1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable Liquids	Category 2
Eye Irritation	Category 2A
Short-term (Acute) Aquatic Hazard	Category 3
Long-term (Chronic) Aquatic Hazard	Category 3

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word

Danger

Hazard statements

Highly flammable liquid and vapor.
Causes serious eye irritation.
Harmful to aquatic life with long lasting effects.

Precautionary statements

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. Wash skin thoroughly after handling. Avoid release to the environment. Wear protective gloves/ eye protection/ face protection.

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.

Fire: In case of fire, use dry sand, dry chemical, or alcohol-resistant foam to extinguish.

Storage: Store in a well-ventilated place. Keep cool.

Disposal: Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

None identified.

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Ethanol	Ethyl alcohol; EtOH	64-17-5	80-100%
n-Heptane	Dipropylmethane	142-82-5	1-5%

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

If inhaled	Remove to fresh air.
In case of skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower.
In case of eye contact	Rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.
If swallowed	Immediately make victim drink water (two glasses at most). Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (Section 2.2).

4.3 Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical, or Carbon dioxide.

Unsuitable extinguishing media For this substance/mixture, no limitations of extinguishing agents are given.

5.2 Specific hazards arising from the substance or mixture

Carbon oxides. Combustible. Pay attention to flashback. Vapors are heavier than air and may spread along floors. Development of hazardous combustion gases or vapours possible in the event of fire. Forms explosive mixtures with air at ambient temperatures.

5.3 Special protective equipment and precautions for firefighters

In the event of fire, wear self-contained breathing apparatus.

5.4 Further information

Flash Point -14.0 °C (57.2 °F) Closed Cup

Autoignition Temperature 363.0 °C (685.4 °F)

Explosion limits

Upper 19%

Lower 3.30%

Sensitivity to Mechanical Impact No information available.

Sensitivity to Static Discharge No information available.

NFPA

Health	Flammability	Instability	Physical hazards
2	3	0	N/A

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. For personal protection, see Section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner, or by wet-brushing, and place in container for disposal according to local regulations.

6.4 Reference to other sections

See Section 2 for full list of hazard and precaution statements. For disposal, see Section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Precautions on safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Use explosion-proof equipment. Keep away from sources of ignition. No smoking. Take measures to prevent the build up of electrostatic charge.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Incompatibilities

Alkali metals, Oxidizing agents, Peroxides.

SECTION 8: Exposure controls/personal protection

8.1 Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Component	Type	Value	
Ethanol	(Vacated) TWA	1000 ppm	1900 mg/m ³
n-Heptane	TWA	500 ppm	2000 mg/m ³

US. ACGIH Threshold Limit Values

Component	Type	Value
Ethanol	STEL	1000 ppm
n-Heptane	TWA	400 ppm
	STEL	500 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value	
Ethanol	IDLH	3300 ppm	
	TWA	1000 ppm	1900 mg/m ³
n-Heptane	TWA	85 ppm	350 mg/m ³
	Ceiling	440 ppm	1800 mg/m ³

Biological occupational exposure limits

No information available.

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with butyl rubber gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Impervious clothing or flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Liquid
Appearance	Colorless
Odor	No information available
Odor Threshold	No information available
pH	No information available
Melting Point/Range	-143.99°C (-227.18°F)
Boiling Point/Range	78.0-80.0 °C (172.4-176.0 °F)
Evaporation Rate	No information available
Flammability (solid)	Not applicable
Flammability or explosive limit	
Upper	19%
Lower	3.30%
Vapor Pressure	59.5 hPa (44.6 mmHg) at 20.0 °C (68.0 °F)
Vapor Density	No information available
Density	0.7974 g/cm ³
Solubility	Soluble
Partition coefficient; n-octanol/water	No data available
Autoignition Temp	363.0 °C (685.4 °F)
Decomposition Temp	No information available

Viscosity	No information available
Molecular Formula	C ₂ H ₅ OH
Molecular Weight	46.07 g/mol
VOC Content(%)	No information available
Oxidizing properties	Not oxidizing

9.2 Other safety information

No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Vapors may form explosive mixture with air.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions

No information available.

10.4 Conditions to avoid

Heat, flames, and sparks. Extremes of temperature and direct sunlight.

10.5 Incompatible materials

Alkali metals, Oxidizing agents, Peroxides.

10.6 Hazardous decomposition products

Carbon oxides.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ethanol	10470 mg/kg (Rat) 3450 mg/kg (Mouse)	-	117-125 mg/L 4h (Rat) 20000 ppm/10H (Rat)
n-Heptane	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 29.29 mg/L (Rat)

Skin corrosion/irritation

Irritating to skin. May cause skin irritation in susceptible persons.

Serious eye damage/eye irritation

Vapors may cause irritation to the eyes, respiratory system, and the skin.

Respiratory or skin sensitization

Did not cause sensitization on laboratory animals. Information given is based on data obtained from similar substances.

Germ cell mutagenicity

Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Ethanol	64-17-5	Not listed	Not listed	Not listed	Not listed	Not listed
n-Heptane	142-82-5	Not listed	Not listed	Not listed	Not listed	Not listed

Specific target organ toxicity - single exposure

No information available.

Specific target organ toxicity - repeated exposure

No information available.

Reproductive toxicity

No information available.

Chronic effects

No information available.

11.2 Additional Information

The toxicological properties have not been fully investigated.

SECTION 12: Ecological information

12.1 Toxicity

Product		Species	Test Results
Ethanol	LC50	Pimephales promelas	15,300 mg/L, 96h, flow-through
	LC50	Ceriodaphnia dubia	5,012 mg/L, 48h, static
	EC50	Chlorella vulgaris	275 mg/L, 72h, static
	IC50	Activated sludge	> 1,000 mg/L, 3h, static
	NOEC	Danio rerio	250 mg/L 120h, semi-static
	NOEC	Daphnia magna	9.6 mg/L, 9d, semi-static
n-Heptane	LL50	Oncorhynchus mykiss	1.284 mg/L, 96h
	LC50	Tilapia mosambica	375 mg/L, 96h
	EC50	Daphnia magna	1.5 mg/L, 48h, static
	LC50	Mysidopsis bahia	0.1 mg/L, 96h, semi-static
	EL50	Pseudokirchneriella subcapitata	4.338 mg/L, 72h

12.2 Persistence and degradability

No information available.

12.3 Bio accumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

SECTION 14: Transport information

DOT (US)

UN-no	UN1987
Proper Shipping Name	Alcohols, n.o.s.
Hazard Class	3
Packing Group	II

IMDG

UN-no	UN1987
Proper Shipping Name	Alcohols, n.o.s.
Hazard Class	3
Packing Group	II

IATA

UN-no	UN1987
Proper Shipping Name	Alcohols, n.o.s.
Hazard Class	3
Packing Group	II

SECTION 15: Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not applicable.

CERCLA Hazardous Substance List (40 CFR 302.4)
Not applicable.

SARA 304 Emergency release notification
Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)
Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)
SARA 302 Extremely hazardous substance
Not listed.

SARA 311/312 Hazardous
Fire Hazard, Acute Health Hazard, Chronic Health Hazard.

SARA 313 (TRI reporting)
Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.

Safe Drinking Water Act
Not regulated.

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace
Listed, Ethyl alcohol (CAS #64-17-5).

US state regulations

US. Massachusetts RTK - Substance List
Listed, Ethyl alcohol (CAS #64-17-5).
Listed, Heptane (CAS #142-82-5).

US. New Jersey Worker and Community Right-to-Know Act
Listed, Ethyl alcohol (CAS #64-17-5).
Listed, Heptane (CAS #142-82-5).

US. Pennsylvania Worker and Community Right-to-Know Law

Listed, Ethyl alcohol (CAS #64-17-5).

Listed, Heptane (CAS #142-82-5).

California Proposition 65

Listed, Ethyl alcohol (CAS #64-17-5).

SECTION 16: Other information

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SECTION 17: Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.