

SAFETY DATA SHEET

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

1.1 Product identifiers

Product name Specially Denatured Alcohol (SDA) 40B, 200

CAS number 64-17-5, 75-65-0, 3834-33-6

Synonyms SDA

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

Identified uses Laboratory chemicals

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 2A)

Category 2 Eye irritation (Category 2A)

2.2 GHS Label elements, including precautionary statements

Pictogram**Signal Word**

Danger

Hazard statementsHighly flammable liquid and vapor.
Causes serious eye irritation**Precaution statements**

Keep away from heat, open flame, sparks. -No smoking.

Keep container tightly closed.

Take precautionary measures against static discharge.

Ground/bond container and receiving equipment.

Use explosion-proof electrical, lighting, ventilating equipment.

Use only non-sparking tools.

Wash hands, forearms, and exposed areas thoroughly after handling. Wear eye protection, protective gloves, protective clothing.

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

In case of fire: Use appropriate media to extinguish. Store in a well-ventilated place.

Keep cool.

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

No information available

SECTION 3: Composition/information on ingredients**3.1 Components**

Chemical name	Common name and synonyms	CAS number	Concentration
Ethanol	ethanol; alcohol; ETOH; methyl carbinol; ethyl hydrate; grain alcohol	64-17-5	90%-100%

SECTION 4: First aid measures**4.1 Description of first-aid measures****General advice****If inhaled**

If symptoms are experienced, remove source of contamination or move to fresh air. If breathing is difficult, get medical attention.

In case of skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. If irritation is experienced, flush with water. Get medical attention if irritation develops and persists, get medical attention.
In case of eye contact	Immediately flush eyes with water for at least 15 minutes while holding. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if symptoms persist.
If swallowed	Rinse mouth. Do NOT induce vomiting. If the material is swallowed, get medical advice or attention.

4.2 Most important symptoms and effects, both acute and delayed

Headache. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Coughing.

4.3 Indication of any immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	Water fog. Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO ₂). Do not use water jet as an extinguisher, as this will spread the fire.
Unsuitable extinguishing media	Do not use water jet as this will spread the fire.

5.2 Specific hazards arising from the substance or mixture

Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed. Combustion products may include: carbon oxides.

5.3 Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire. In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Use water spray to keep fire-exposed containers cool. Use standard firefighting procedures and consider the hazards of other involved materials. Highly flammable liquid and vapor.

5.4 Further information

Flash Point	No information available
Autoignition Temperature	No information available
Explosion limits	

Upper No information available
Lower No information available
Sensitivity to Mechanical Impact No information available
Sensitivity to Static Discharge No information available
NFPA

Health	Flammability	Instability	Physical hazards
-	-	-	-

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use special care to avoid static electric charges. Keep away from heat, sparks, open flames, hot surfaces. -No smoking! Avoid all eye skin contact and do not breathe vapor and mist. Flammable liquid! This material releases vapors at or below ambient temperatures. When mixed with air in certain proportions and exposed to an ignition source, its vapor can cause a flash fire. Use only with adequate ventilation. Vapors are heavier than air and may travel long distances along the ground to an ignition source and flash back. A vapor and air mixture can create an explosion hazard in confined spaces such as sewers. If container is not properly cooled, it can rupture in the heat of a fire.

6.2 Environmental precautions

Prevent discharge to open bodies of water, municipal sewers, and watercourses.

6.3 Methods and materials for containment and cleaning up

Absorb spilled liquid in suitable non-flammable inert material such as clay, vermiculite or diatomaceous earth.

6.4 Reference to other sections

See section 2 for full list of hazard and precaution statements.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Precautions on safe handling

Keep away from heat, sparks and flame. Use only with adequate ventilation. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Handle empty containers with care because residual vapors are flammable.

Hygiene measures

Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

Incompatibilities

No information available

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	TWA	1000 ppm

US. ACGIH Threshold Limit Values

Component	Type	Value
Ethanol	STEL	1000 ppm
tert-Butyl alcohol	STEL	100 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value
Ethanol	TWA	1900 mg/m ³

8.2 Exposure controls

Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.

Personal protective equipment

Eye/face protection

Chemical goggles are recommended.

Skin protection

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. Wear appropriate chemical resistant clothing. Wear appropriate thermal protective clothing, when necessary.

Body Protection

Wear appropriate clothing to minimize skin exposure.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Respirator type: Chemical respirator with organic vapor cartridge.

Control of environmental exposure

Avoid discharge into drains, water courses or onto the ground.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Clear liquid
Appearance	Colorless
Odor	Ethanollic smell, bitter taste
Odor Threshold	Not available
pH	Not available
Melting Point/Range	-143.1 °C (-227.18 °F)
Boiling Point/Range	Not available
Evaporation Rate	Expected to be rapid.
Flammability (solid)	Not available
Flammability or explosive limit	
Upper	19.00%
Lower	3.30%
Vapor Pressure	57.3 hPa at 20°C
Vapor Density	0.7974 g/cm ³
Density	0.78-0.8
Solubility	Soluble
Partition coefficient; n-octanol/water	-0.32(Ethanol)
Autoignition Temp	363°C
Decomposition Temp	Not available
Viscosity	Not available
Molecular Formula	C ₂ H ₅ OH
Molecular Weight	46.07
VOC Content(%)	Not oxidizing
Oxidizing properties	Not oxidizing

9.2 Other safety information

None

SECTION 10: Stability and reactivity

10.1 Reactivity

No information available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Vapors may form explosive mixture with air.

10.4 Conditions to avoid

Heat, flames and sparks. Extreme temperature and direct sunlight.

10.5 Incompatible materials

Alkali metals, oxidizing agents, peroxides.

10.6 Hazardous decomposition products

No data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ethanol	2743 mg/kg	2000 mg/kg	Not available
tert-Butyl alcohol	5800 mg/kg	7426 mg/kg	50,100 mg/m ³ - 8h
Denatonium Benzoate	584 mg/kg	>2000 mg/kg	508 mg/kg

Skin corrosion/irritation

May cause irritation, cracking, flaking, and defatting of skin on prolonged contact.

Serious eye damage/eye irritation

Liquid and vapor may cause irritation. Splashes may cause temporary pain and blurred vision.

Respiratory or skin sensitization

May be harmful if absorbed through skin. Causes skin irritation.

Germ cell mutagenicity

No information available

Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Ethanol	64-17-6	Not listed	Not listed	Not listed	Not listed	Not listed
tert-Butyl alcohol	75-65-0	Not listed	Not listed	Not listed	Not listed	Not listed

Specific target organ toxicity - single exposure

Thyroid, thymus, skin, eyes, respiratory system.

Specific target organ toxicity - repeated exposure

Nervous system, liver, blood, reproductive system.

Reproductive toxicity

alcohol is a developmental toxin when consumed during pregnancy.

Chronic effects

No information available

11.2 Additional Information

No information available

SECTION 12: Ecological information

12.1 Toxicity

Product		Species	Test Results	
Ethanol	LC50	Onorchynchus mykiss	12900 mg/L	96h
	LC50	Pimephales promelas	14.2 mg/L	96h
	EC50	Photobacterium phosphoreum	35470 mg/L	5 min
	EC50	Photobacterium phosphoreum	34634 mg/L	30 min
	EC50	Daphnia magna	9268 mg/L	48h
	EC50	Daphnia magna	10800 mg/L	24h
Tert-Butyl Alcohol	LC50	Pimephales promelas	6140 mg/L	96h
	EC50	Daphnia magna	933 mg/L	48h

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
Hazard class	3
Packing group	II
Label	Flammable

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)

Listed

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed

SARA 304 Emergency release notification

Not listed

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous

Fire. 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**

Ethyl alcohol: Low priority .

US state regulations

US. Massachusetts RTK - Substance List

Listed

US. New Jersey Worker and Community Right-to-Know Act

Listed

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

Listed

California Proposition 65

Not listed

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.