Safety Data Sheet

ALCOHOL, REAGENT GRADE, 80%, 4X1 GALLON

Section 1. Identification

Product Identifier	ALCOHOL, REAGENT GRADE, 80%, 4X1 GALLON
Synonyms	MCHEM132; MSD_SDS0560
Manufacturer Stock Numbers	MCHEM132
Recommended use	No use is specified.
Uses advised against	N/A
Manufacturer Contact Address	Medline 3 Lakes Drive Northfield, IL, 6009 USA

Phone	Emergency Phone	Fax
(800) 633-5463	(800) 424-9300 CHEMTREC	(847) 643-4436

Website

www.Medline.com

Section 2. Hazards Identification

Classification	ACUTE TOXICITY - ORAL - Category 4 EYE IRRITATION - Category 2A FLAMMABLE LIQUIDS - Category 2 SPECIFIC TARGET ORGAN TOXICITY (Single Exposure) - Category 1
Signal Word	Danger

Pictogram

Hazard Statements

Causes damage to organs(Optic nerve).
Causes serious eye irritation
Harmful if swallowed
Highly flammable liquid and vapor

Precautionary Statements

Response

IF exposed or concerned: Call a POISON CENTER or doctor.
If eye irritation persists: Get medical advice/attention.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
In case of fire: Use appropriate media (see section 5) to extinguish.
Rinse mouth.
Specific treatment (see section 4 on this SDS).

Prevention

Do not breathe vapors, mist, or spray.
Do not eat, drink or smoke when using this product.
Ground/bond container and receiving equipment.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Keep container tightly closed.
Take action to prevent static discharges.
Use explosion-proof electrical, ventilating, and lighting equipment.
Use only non-sparking tools.
Wash hands, forearms, and other exposed areas thoroughly after handling.
Wear protective gloves, protective clothing, and eye protection.

Storage

Store in a well-ventilated place. Keep cool.
Store locked up.

Disposal

Dispose of contents/container in accordance with local, regional, national, and international regulations.

Ingredients of unknown toxicity

0%

Hazards not Otherwise Classified

Other Hazards:

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

Unknown acute toxicity (GHS-US):

No data available.

Section 3. Ingredients

CAS	Ingredient Name	Weight %

64-17-5	Ethyl alcohol	64% - 80%
67-56-1	Methanol	0.8% - 12%
67-63-0	Isopropyl alcohol	0.8% - 12%

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First-Aid Measures

Description of First-aid Measures:

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

Skin Contact: Immediately remove contaminated clothing. Immediately drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists.

Eye Contact: Immediately rinse with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists. Seek medical advice.

Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

Most Important Symptoms and Effects Both Acute and Delayed:

General: Causes damage to organs (Optic Nerve) (Oral). Causes serious eye irritation. Harmful if swallowed.

Inhalation: Prolonged exposure may cause irritation.

Skin Contact: Prolonged exposure may cause skin irritation.

Eye Contact: Contact causes severe irritation with redness and swelling of the conjunctiva.

Ingestion: This material is harmful orally and can cause adverse health effects or death in significant amounts. This material contains methanol, which, when ingested, may cause acidosis and ocular toxicity ranging from diminished visual capacity to complete blindness, and possible death.

Chronic Symptoms: None expected under normal conditions of use.

Indication of Any Immediate Medical Attention and Special Treatment Needed:

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

Section 5. Fire Fighting Measures

Suitable Extinguishing Media

Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2). Water should be used to keep fire-exposed container cool.

Unsuitable Extinguishing Media

Do not use a heavy water stream. A heavy water stream may spread burning liquid.

Special Hazards Arising From the Substance or Mixture:	Fire Hazard: Highly flammable liquid and vapor. Explosion Hazard: May form flammable or explosive vapor-air mixture. When mixed with air and exposed to an ignition source, flammable vapors can burn in the open or explode in confined spaces. Being heavier than air, vapors may travel long distances to an ignition source and flash back. Runoff to sewer may cause fire or explosion hazard. Reactivity: Reacts violently with strong oxidizers. Increased risk of fire or explosion.
Advice for Firefighters:	Precautionary Measures Fire: Exercise caution when fighting any chemical fire. Firefighting Instructions: Use water spray or fog for cooling exposed containers. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion. Large quantities of foam may be used. Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection. Hazardous Combustion Products: Carbon oxides (CO, CO2).
Reference to other sections:	Refer to section 9 for flammability properties.

Section 6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures:	General Measures: Do not breathe vapor, mist or spray. Do not get in eyes, on skin, or on clothing. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. Use special care to avoid static electric charges. For Non-Emergency Personnel Protective Equipment: Use appropriate personal protective equipment (PPE). Emergency Procedures: Evacuate unnecessary personnel. Stop leak if safe to do so. For Emergency Personnel Protective Equipment: Equip cleanup crew with proper protection. Emergency Procedures: Eliminate ignition sources first, then ventilate the area. Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.
Environmental precautions:	Prevent entry to sewers and public waters.
Methods and Materials for Containment and Cleaning Up:	For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. As an immediate precautionary measure, isolate spill or leak area in all directions. Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill. Absorb and/or contain spill with inert

material. Do not take up in combustible material such as: saw dust or cellulosic material. Use only non-sparking tools.

Reference to Other Sections: See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

Section 7. Handling and Storage

Precautions for Safe Handling: Additional Hazards When Processed: Handle empty containers with care because residual vapors are flammable.

Precautions for Safe Handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not breathe mist/vapors/spray. Avoid contact with eyes, skin and clothing. Take precautionary measures against static discharge. Use only non-sparking tools. Handle empty containers with care because they may still present a hazard.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

Conditions for Safe Storage, Including Any Incompatibilities: Technical Measures: Comply with applicable regulations. Take action to prevent static discharges. Ground and bond container and receiving equipment. Use explosion-proof electrical, ventilating, and lighting equipment.

Storage Conditions: Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store in a well-ventilated place. Keep container tightly closed. Keep in fireproof place.

Incompatible Materials: Strong acids, strong bases, strong oxidizers.

Recommended use: No use is specified.

Section 8. Exposure Controls/Personal Protection

Occupational Exposure Limits

Ingredient Name	ACGIH TLV	OSHA PEL	STEL
Ethyl alcohol	STEL: 1,000 ppm Note: Upper respiratory track irritation. Confirmed animal carcinogen with unknown relevance to humans.	TWA: 1,000ppm 1,900mg/mm3 29 CFR 1910.1000 Table Z-1 Limits	N/A
Methanol	TWA: 200 ppm STEL: 250 ppm	TWA: 200 ppm	N/A
Isopropyl alcohol	TWA: 200 ppm STEL: 400 ppm	TWA: 400 ppm STEL: 500 ppm	N/A

Personal Protective Equipment Goggles, Gloves, Apron, Face Shield

Control Parameters:	For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.
Appropriate Engineering Controls:	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Gas detectors should be used when flammable gases or vapors may be released. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment.
Personal Protective Equipment:	Safety glasses. Gloves. Protective clothing. Protective goggles. Insufficient ventilation: wear respiratory protection.
Materials for Protective Clothing:	Chemically resistant materials and fabrics. Wear fire/flame resistant/retardant clothing.
Hand protection:	Wear protective gloves.
Eye and Face Protection:	Chemical safety goggles and face shield.
Skin and body protection:	Wear suitable protective clothing.
Respiratory Protection:	If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.
Other information:	When using, do not eat, drink or smoke.

Section 9. Physical and Chemical Properties

Physical State	Liquid
Color	N/A
Odor	N/A
Odor Threshold	N/A
Solubility	N/A
Partition coefficient Water/n-octanol	N/A
VOC%	N/A
Viscosity	N/A
Specific Gravity	1
Density lbs/Gal	N/A
Pounds per Cubic Foot	N/A
Flash Point	20 °C
FP Method	N/A
pH	N/A
Melting Point	N/A
Boiling Point	79 °C
Boiling Range	N/A
LEL	N/A
UEL	N/A
Evaporation Rate	N/A
Flammability	N/A
Decomposition Temperature	N/A
Auto-ignition Temperature	N/A

Vapor Pressure	N/A
Vapor Density	N/A

Section 10. Stability and Reactivity

Reactivity:	Reacts violently with strong oxidizers. Increased risk of fire or explosion.
Chemical Stability:	Highly flammable liquid and vapor. May form flammable or explosive vapor-air mixture.
Possibility of hazardous reactions:	Hazardous polymerization will not occur.
Conditions to Avoid:	Direct sunlight, extremely high or low temperatures, heat, hot surfaces, sparks, open flames, incompatible materials, and other ignition sources.
Incompatible Materials:	Strong acids, strong bases, strong oxidizers.
Hazardous Decomposition Products:	Thermal decomposition may produce: Carbon oxides (CO, CO2).

Section 11. Toxicological Information

Information on Toxicological Effects - Product:

Acute Toxicity (Oral): Harmful if swallowed.

Acute Toxicity (Dermal): Not classified

Acute Toxicity (Inhalation): Not classified

LD50 and LC50 Data:
ReagentAlcohol 80% with Type 1 Water:
ATE US/CA (oral): 952.38 mg/kg body weight

Skin Corrosion/Irritation: Not classified

Eye Damage/Irritation: Causes serious eye irritation.

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Carcinogenicity: Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Causes damage to organs(Optic nerve).

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: Prolonged exposure may cause irritation.

Symptoms/Injuries After Skin Contact: Prolonged exposure may cause skin irritation.

Symptoms/Injuries After Eye Contact: Contact causes severe irritation with redness and swelling of the conjunctiva.

Symptoms/Injuries After Ingestion: This material is harmful orally and can cause adverse health effects or death in significant amounts. This material contains methanol, which, when ingested, may cause acidosis and ocular toxicity ranging from diminished visual capacity to complete blindness, and possible death.

Chronic Symptoms: None expected under normal conditions of use.

Information on Toxicological Effects - Ingredient(s):

LD50 and LC50 Data:
Ethyl alcohol CAS No. 64-17-5
LD50 Oral Rat: 10470 mg/kg
LD50 Dermal Rat: 20 ml/kg
LC50 Inhalation Rat: 124.7 mg/l/4h

Isopropyl alcohol CAS No. 67-63-0
LD50 Dermal Rabbit: 12956 mg/kg (16.4 mL/kg bw)
LC50 Inhalation Rat: 72600 mg/m³ (Exposure time: 4 h)

Methanol CAS No. 67-56-1
LD50 Dermal Rabbit: 15840 mg/kg
LC50 Inhalation Rat: 22500 ppm (Exposure time: 8 h)
ATE US/CA (oral): 100.00 mg/kg body weight
ATE US/CA (dermal): 300.00 mg/kg body weight
ATE US/CA (vapors): 3.00 mg/l/4h

Isopropyl alcohol CAS No. 67-63-0
IARC Group: 3

Section 12. Ecological Information

Toxicity:

Ecology - General: Not classified.

Ethyl alcohol CAS No. 64-17-5
LC50 Fish 1: 11200 mg/l
EC50 - Crustacea [1]: 9268 – 14221 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 Fish 2: > 100 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
ErC50 algae: 1000 mg/l
NOEC Chronic Crustacea: 9.6 mg/l

Isopropyl alcohol CAS No. 67-63-0
LC50 Fish 1: 9640 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 - Crustacea [1]: 13299 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 Other Aquatic Organisms 1: 1000 mg/l (Exposure time: 96 h - Species: Desmodesmus subspicatus)

LC50 Fish 2: 11130 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Other Aquatic Organisms 2: 1000 mg/l (Exposure time: 72 h - Species: Desmodesmus subspicatus)

Methanol CAS No. 67-56-1
LC50 Fish 1: 28200 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 - Crustacea [1]: 1340 mg/l
LC50 Fish 2: > 100 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])

Persistence and Degradability:	Reagent Alcohol 80% with Type 1 Water Persistence and Degradability: Not established.
Bioaccumulative Potential:	Reagent Alcohol 80% with Type 1 Water Bioaccumulative Potential: Not established.

Ethyl alcohol CAS No. 64-17-5
Partition coefficient n-octanol/water (Log Pow): -0.32

Isopropyl alcohol CAS No. 67-63-0
Partition coefficient n-octanol/water (Log Pow): 0.05 (at 25 °C)

Methanol CAS No. 67-56-1
BCF Fish 1: < 10
Partition coefficient n-octanol/water (Log Pow): -0.77

Mobility in soil:	Not available.
Other adverse effects:	Other information: Avoid release to the environment.

Section 13. Disposal

Waste Disposal Recommendations::	Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations
Additional Information:	Handle empty containers with care because residual vapors are flammable.
Ecology - waste materials:	Avoid release to the environment.

Section 14. Transport Information

UN Number	1987
UN Proper Shipping Name	Alcohols, n.o.s. (ETHANOL, ISOPROPANOL)
DOT Classification	3
Packing Group	II
Emergency Response Guide Number:	127
IMDG - Packing Group:	II
IMDG - Hazard Class:	3
IMDG - EMS-No:	F-E, S-D
IATA - Packing Group:	II
IATA - Hazard Class:	3

ERG Code:	3L
TDG - Packing Group:	II
TDG - Hazard Class:	3

Section 15. Regulatory Information

SARA 302:	N.A.
SARA 304:	N.A.
SARA 311/312:	Refer to Section 2 of the SDS.
SARA 313:	Methanol.
SARA 313:	Isopropyl Alcohol
CERCLA:	Methanol CAS-No. 67-56-1. RQ:5,000 lbs
TSCA:	All components are listed or exempt.
Clean Air Act (CAA) Section 112, 112 (r):	N.A.
New Jersey Right to Know Components:	ETHYL ALCOHOL. ISOPROPYL ALCOHOL. METHYL ALCOHOL.
Massachusetts Right to Know Components:	ETHYL ALCOHOL. Methanol.
Rhode Island Right to Know Components:	ETHYL ALCOHOL isopropyl alcohol. methyl alcohol.
Pennsylvania Right to Know Components:	ETHANOL. 2-PROPANOL. METHANOL.

Section 16. Other Information

Revision Date	3/12/2024
Legend	N.A. - Not Applicable N.E. - Not Established N.D. - Not Determined
Additional Information:	The information contained herein is furnished without warranty or legal responsibility of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determination of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees.