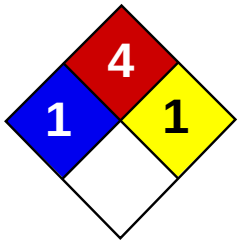

Material Safety Data Sheet
Alchol-Ether Mixture MSDS

Section 1: Chemical Product and Company Identification

Product Name: Alchol-Ether Mixture

Catalog Codes: SLA3448

CAS#: Mixture.

RTECS: Not applicable.

TSCA: TSCA 8(b) inventory: Ethyl alcohol; Methanol; Ethyl ether

CI#: Not applicable.

Synonym:

Chemical Name: Alchol-Ether Mixture

Chemical Formula: Not applicable.

Contact Information:

Sciencelab.com, Inc.
14025 Smith Rd.
Houston, Texas 77396

US Sales: **1-800-901-7247**
International Sales: **1-281-441-4400**

Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call: 1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Ethyl alcohol	64-17-5	47-48
Methanol	67-56-1	2-3
Ethyl ether	60-29-7	49-51

Toxicological Data on Ingredients: Ethyl alcohol: ORAL (LD50): Acute: 3450 mg/kg [Mouse]. 7060 mg/kg [Rat]. Methanol: ORAL (LD50): Acute: 5628 mg/kg [Rat]. 7300 mg/kg [Mouse]. DERMAL (LD50): Acute: 15800 mg/kg [Rabbit]. VAPOR (LC50): Acute: 64000 ppm 4 hours [Rat]. Ethyl ether: ORAL (LD50): Acute: 1215 mg/kg [Rat]. 7060 mg/kg [Rat]. DERMAL (LD50): Acute: 14268 mg/kg [Rabbit].

Section 3: Hazards Identification

Potential Acute Health Effects:
Hazardous in case of skin contact (permeator), of eye contact (irritant), of inhalation. Slightly hazardous in case of skin contact (irritant), of ingestion.

Potential Chronic Health Effects:
CARCINOGENIC EFFECTS: Classified 4 (Probably not for human.) by IARC, None. by NIOSH [Alchol-Ether Mixture]. Classified (Inadequate study.) by NTP [Alchol-Ether Mixture]. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Reproductive system/

toxin/male [PROVEN] [Ethyl alcohol]. The substance may be toxic to cardiovascular system, central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage.

Section 4: First Aid Measures

Eye Contact:
Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Get medical attention.

Skin Contact:
Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.

Serious Skin Contact:
Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation:
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear.

Serious Inhalation:
Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

Ingestion:
Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: Flammable.

Auto-Ignition Temperature: The lowest known value is 180°C (356°F) (Ethyl ether).

Flash Points: CLOSED CUP: -30°C (-22°F).

Flammable Limits: The greatest known range is LOWER: 1.9% UPPER: 36% (Ethyl ether)

Products of Combustion: These products are carbon oxides (CO, CO2).

Fire Hazards in Presence of Various Substances:
Flammable in presence of open flames and sparks, of heat. Slightly flammable to flammable in presence of oxidizing materials.

Explosion Hazards in Presence of Various Substances:
Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions:
Flammable liquid, soluble or dispersed in water. SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use alcohol foam, water spray or fog.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill:
Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.

Large Spill:
Flammable liquid. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7: Handling and Storage

Precautions:
Keep locked up.. Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, moisture.

Storage:
Store in a segregated and approved area. 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).

Section 8: Exposure Controls/Personal Protection

Engineering Controls:
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection:
Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves (impervious).

Personal Protection in Case of a Large Spill:
Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits:
Ethyl alcohol TWA: 1000 (ppm) from OSHA (PEL) [United States] TWA: 1000 (ppm) from ACGIH (TLV) [United States] TWA: 1880 (mg/m3) from ACGIH (TLV) [United States] TWA: 1000 (ppm) from NIOSH Methanol TWA: 200 STEL: 250 CEIL: 200 (mg/m3) from ACGIH (TLV) [United States] TWA: 200 STEL: 250 from OSHA (PEL) [United States] TWA: 200 STEL: 250 (ppm) from NIOSH Ethyl ether TWA: 400 STEL: 500 CEIL: 500 from ACGIH (TLV) [United States] TWA: 1200 STEL: 1520 CEIL: 1500 from ACGIH (TLV) [United States] STEL: 500 (ppm) [Australia]Consult local authorities for acceptable exposure limits.

Section 9: Physical and Chemical Properties

Physical state and appearance: Liquid.

Odor: Ethereal.

Taste: Not available.

Molecular Weight: Not applicable.

Color: Colorless.

pH (1% soln/water): Not available.

Boiling Point: 49°C (120.2°F)

Melting Point: -50°C (-58°F)

Critical Temperature: Not available.

Specific Gravity: 0.75 (Water = 1)

Vapor Pressure: The highest known value is 58.6 kPa (@ 20°C) (Ethyl ether). Weighted average: 32.14 kPa (@ 20°C)

Vapor Density: The highest known value is 2.56 (Air = 1) (Ethyl ether). Weighted average: 2.07 (Air = 1)

Volatility: Not available.

Odor Threshold: The highest known value is 180 ppm (Ethyl alcohol) Weighted average: 88.17 ppm

Water/Oil Dist. Coeff.: Not available.

Ionicity (in Water): Non-ionic.

Dispersion Properties: See solubility in water.

Solubility: Partially soluble in cold water, hot water.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Not available.

Incompatibility with various substances: Reactive with oxidizing agents, moisture.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity: Air Sensitive and Hydroscopic (Ethyl ether)

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.

Toxicity to Animals:
Acute oral toxicity (LD50): 1215 mg/kg [Rat]. (Ethyl ether). Acute dermal toxicity (LD50): 14268 mg/kg [Rabbit]. (Ethyl ether).

Chronic Effects on Humans:
CARCINOGENIC EFFECTS: Classified 4 (Probably not for human.) by IARC, None. by NIOSH [Alchol-Ether Mixture]. Classified (Inadequate study.) by NTP [Alchol-Ether Mixture]. DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Reproductive system/toxin/male [PROVEN] [Ethyl alcohol]. May cause damage to the following organs: cardiovascular system, central nervous system (CNS).

Other Toxic Effects on Humans:
Hazardous in case of skin contact (permeator), of inhalation. Slightly hazardous in case of skin contact (irritant), of ingestion.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Embryotoxic and/or foetotoxic in animal. (Ethyl ether)

Special Remarks on other Toxic Effects on Humans: Not available.

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:
Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal:

Section 14: Transport Information

DOT Classification: CLASS 3: Flammable liquid.

Identification: : Flammable Liquid, n.o.s (Alcohol-Ether Mixture) UNNA: 1993 PG: II

Special Provisions for Transport: Not available.

Section 15: Other Regulatory Information

Federal and State Regulations:
California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Ethyl alcohol California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: Ethyl alcohol Rhode Island RTK hazardous substances: Ethyl ether Pennsylvania RTK: Ethyl alcohol; Methanol; Ethyl ether Florida: Ethyl alcohol; Methanol; Ethyl ether Minnesota: Ethyl alcohol; Ethyl ether Massachusetts RTK: Ethyl alcohol; Ethyl ether New Jersey: Ethyl alcohol; Ethyl ether TSCA 8(b) inventory: Ethyl alcohol; Methanol; Ethyl ether TSCA 8(a) PAIR: Ethyl ether TSCA 8(d) H and S data reporting: Ethyl ether: 1/26/94 TSCA 12(b) one time export: Ethyl ether SARA 313 toxic chemical notification and release reporting: Methanol 2.5% CERCLA: Hazardous substances.: Methanol: 5000 lbs. (2268 kg); Ethyl ether: 100 lbs. (45.36 kg);

Other Regulations: OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other Classifications:

WHMIS (Canada):
CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F). CLASS D-1A: Material causing immediate and serious toxic effects (VERY TOXIC). CLASS D-2A: Material causing other toxic effects (VERY TOXIC).

DSCL (EEC):
R11- Highly flammable. R19- May form explosive peroxides.

HMIS (U.S.A.):

Health Hazard: 2

Fire Hazard: 4

Reactivity: 0

Personal Protection: j

National Fire Protection Association (U.S.A.):

Health: 1

Flammability: 4

Reactivity: 1

Specific hazard:

Protective Equipment:
Gloves (impervious). Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

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