

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: Acid Alcohol, 0.5

Synonyms: None

Product Codes: 6407-500, 6407-1G

Manufacturer: Rankin Biomedical

Address: 10399 Enterprise Drive, Davisburg, MI 48530

Support: 1-877-882-3679

Chemtrec Phone: 1-800-424-9300

Product Use: Laboratory Reagent

Prepared By: SB

Section 1 Notes:

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification: Flammable Liquid Category 2, Skin Corrosion/Irritation Category 2; Serious eye damage/irritation Category 2B; Specific Target Organ Toxicity – single exposure (Respiratory) Category 3



Signal Word: Danger!

HAZARD PHRASES	
H225	Highly flammable liquid and vapor
H315	Causes skin irritation
H320	Causes eye irritation
H335+H336	May cause respiratory irritation, and drowsiness or dizziness

PRECAUTIONARY PHRASES	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Avoid breathing dust/fume/gas/mist/vapors/spray.
P280	Wear protective gloves/ eye protection/ face protection.
P264	Wash hands thoroughly after handling.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Section 2 Notes:

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	CAS NO.	% WT
Ethanol	64-17-5	<66.5
Methanol	67-56-1	<3.5
Hydrochloric Acid	7647-01-0	<0.7
Water	7732-18-5	<30.0

Section 3 Notes:

SECTION 4: FIRST AID MEASURES

Eyes: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

Skin: In case of contact, flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if irritation persists.

Ingestion: Call medical doctor or poison control center immediately. Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Inhalation: Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms occur.

Section 4 Notes:

SECTION 5: FIRE-FIGHTING MEASURES

Flammability of the product: OSHA/NFPA Class IB Flammable Liquid

Flash Point: 22°C (71.6°F) – closed cup

Autoignition Temperature: 363°C (685°F) – (100% Ethyl Alcohol)

NFPA Hazard Classification:

Health: 1

Flammability: 3

Reactivity: 0

Other

HMIS Hazard Classification:

Health: 1

Flammability: 3

Reactivity: 0

Other

Extinguishing Media: Small fire – use DRY chemical powder, CO₂, water spray or alcohol-resistant foam. Large fire – use alcohol-resistant foam, water spray or fog. Cool all affected containers with flooding quantities of water. Not suitable: Do not use water-jet.

Special fire fighting procedures: Wear self-contained breathing apparatus and protective clothing to protect contact with skin and eyes. Keep unopened containers cool by spraying with water. Alcohols burn with a pale blue flame which may be difficult to see under normal lighting conditions. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.

Hazardous decomposition products: Carbon monoxide, carbon dioxide.

Unusual fire and explosion hazards: May produce a floating fire hazard. Vapors may travel to source of ignition and flash back. Vapors may settle on low or confined spaces.

Section 5 Notes: Static ignition hazard can result from handling and use. Keep away from sparking tools.

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES:

Small spill and leak: Stop spill at the source if it is safe to do so. Neutralize spill with soda ash, or acid neutralizer. Absorb with an inert material. Collect into a suitable container for disposal.

Large spill and leak: Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Contaminated absorbent material may pose the same hazard as the spilled product.

Section 6 Notes:

SECTION 7: HANDLING AND STORAGE

Handling: Do not get in eyes, on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate.

Storage: Store in accordance with local regulations. Store in a segregated and approved area. Store in original container, protected from direct sunlight. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Section 7 Notes:

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering Controls: General mechanical ventilation or laboratory fume hood. Ensure that eyewash stations and quick drench showers are close to the workstation.

Respiratory Protection: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Eye Protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. Recommended: splash goggles

Skin Protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: lab coat

Hands: Chemical-resistant, impervious gloves complying with an approved standard should be worn always when handling chemical products if a risk assessment indicates this is necessary. Recommended: Neoprene

Environmental Exposure Controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Work Hygienic Practices: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.

EXPOSURE GUIDELINES:

OSHA Permissible Exposure Limits (PELs):

Reagent	CAS#	OSHA PEL TWA	Note
Ethyl Alcohol	64-17-5	1000 ppm (1,900 mg/m ³)	29 CFR 1910.1000 Table Z-1 Limits for Air Contaminants
Methyl Alcohol	67-56-1	200ppm (260 mg/m ³)	Absorbed through skin.
Hydrochloric Acid	7647-01-0	5 ppm Ceiling	

Reagent	CAS#	ACGIH PEL TWA	ACGIH STEL	Note
Ethyl Alcohol	64-17-5		1000 ppm	Upper respiratory tract irritation. Confirmed animal carcinogen with unknown relevance to humans
Methyl Alcohol	67-56-1	200ppm (260 mg/m3)	250ppm (328 mg/m3)	Absorbed through skin.
Hydrochloric Acid	7647-01-0	7 ppm Ceiling		

Section 8 Notes:

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear, colorless

Odor: Characteristic

Physical state: liquid

pH as supplies: No available

Boiling point: 79°C

Melting point: Not available

Freezing point: Not available

Vapor pressure (mmHg): 160 mm Hg

Vapor density (AIR = 1): Not available

Evaporation rate: Not available

Solubility in water: Soluble in water

Molecular weight: Mixture

Viscosity: Not established

Section 9 Notes:

SECTION 10: EXPOSURE CONTROL/PERSONAL PROTECTION

Stability: Product is stable under normal conditions of use.

Conditions to avoid (Stability): Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

Incompatibility (Material to avoid): Oxidizing agents

Hazardous decomposition or by-products: Under normal conditions of storage and use, hazardous decomposition products should not occur. Hydrogen chloride gas may form if decomposition occurs.

Hazardous polymerization: No hazardous polymerization

Conditions to avoid (Polymerization): N/A

Section 10 Notes:

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Oral:

- Methyl Alcohol: LD50 (oral, mouse) = 0.4 g/kg, LD50 (oral, rat) = 6.2-13 g/kg LD50 (oral, rabbit) = 14.4 g/kg LDlo (Oral, human) 143 mg/kg (Signs and symptoms of dyspnea and GI disturbances such as nausea, vomiting, and diarrhea)
- Ethyl alcohol: LC50 (Oral, rat) = 7060 mg/kg BWT, LDlo (Oral, human) = 1400mg/kg BWT
- Hydrochloric Acid: LD50 (oral, rat) = 700 mg/kg

Inhalation:

- Ethyl Alcohol: LC50 (Inhalation, rat) = 20,000 ppm, 10hrs
- Methyl Alcohol: LC50 (Inhalation, rat) = 128.2 mg/l 4 hrs; LC50 (Inhalation, rat) = 87.6 mg/l 6 hrs

Dermal LD50:

- Methyl Alcohol: Rabbit LD50 =17,100 mg/kg

Skin corrosion/irritation:

- Ethyl Alcohol: Draize test, rabbit, skin: 20 mg/24H Moderate

Eyes:

- Ethyl alcohol: Draize test, rabbit, eye: 500 mg/24H Reaction - Mild Rabbit, eye: 500 mg Reaction – Severe

Respiratory or skin sensitization: No data available

Germ cell mutagenicity: No data available

CARCINOGENICITY:

Ethyl Alcohol: NIOSH: Not classifiable as a human carcinogen ACGIH: Not classifiable as a human carcinogen

NTP: Not classifiable as a human carcinogen IARC: Not classifiable as a human carcinogen

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NTP: Not classifiable as a human carcinogen IARC: Not classifiable as a human carcinogen

Potential Health Effects

Inhalation Harmful if inhaled. Causes respiratory tract irritation.

Ingestion Toxic if swallowed.

Skin Toxic if absorbed through the skin. Causes skin irritation.

Eyes Causes eye irritation.

ROUTES OF ENTRY: Skin/Eye contact, inhalation, and ingestion.

TARGET ORGANS: Eyes, Respiratory system.

Section 11 Notes:

SECTION 12: ECOLOGICAL INFORMATION

TOXICITY:

Acute fish Toxicity (Hydrochloric Acid)

LC50 Oncorhynchus mykiss (rainbow trout) 282 mg/l 96hr

PERSISTENCE AND DEGRADABILITY: Biodegradation is expected

BIOACCUMULATIVE POTENTIAL: Bioaccumulation is unlikely.

MOBILITY IN SOIL: No data available

PBT and vPvB ASSESSMENT: Not required.

Section 12 Notes:

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Unused product: dispose as a regulated hazardous waste. Spent product or spill clean up-follow all provincial, local, state, and federal regulations.

RCRA HAZARD CLASS: Not classified

Section 13 Notes:

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION

UN No.	UN1170
Proper Shipping Name	Ethanol Solutions
Hazard Class	3
Packing Group	II

TDG

UN No.	UN1170
Proper Shipping Name	Ethanol Solutions
Hazard Class	3
Packing Group	II

IATA

UN No. UN1170
 Proper Shipping Name Ethanol Solutions
 Hazzard Class 3
 Packing Group II

IMDG/IMP

UN No. UN1170
 Proper Shipping Name Ethanol Solutions
 Hazzard Class 3
 Packing Group II
 EMS-No: F-E, S-E

SECTION 15: REGULATORY INFORMATION

United States

HCS Classification: Flammable liquid, Toxic material, Irritating material, Target organ effects

U.S. Federal regulations:

United States inventory (TSCA 8b): Listed on inventory.

SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/311/312/313 hazardous chemicals: No products were found.

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Hydrochloric Acid: Acute Health Hazard, Chronic health hazard Methanol: Flammable liquid, Acute Health Hazard, Chronic health hazard

CERCLA: Methanol CAS-No. 67-56-1. RQ: 5,000 lbs Hydrochloric Acid; Hazardous material; RQ 5000lbs, TPQ 500lbs gas

DEA List I & II Chemicals

(Precursor Chemicals): Not Listed

RTK STATES: Ethyl Alcohol 64-17-5 NJ, PA, MA Methyl Alcohol CAS 67-56-1 CT, MA, NJ, PA
 Hydrochloric Acid CAS 7647-01-0 CA, CT, FL, MA, NJ, PA, RI

California Prop. 65

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

CANADA

WHMIS (Canada): Class B-2: Flammable liquid
 Class D-2B: Material causing other toxic effects.

Canadian Lists

CEPA Toxic substances: None of the components are listed.

Canadian ARET: None of the components are listed.

Canadian NPRI: None of the components are listed.

CEPA DSL / CEPA NDSL:

All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

International regulations

International lists:

Australia inventory (AICS): All components are listed or exempted.

China inventory (IECSC): All components are listed or exempted.

Japan inventory: All components are listed or exempted.

Korea inventory: All components are listed or exempted.

New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.

Philippines inventory (PICCS): All components are listed or exempted.

SECTION 16: OTHER INFORMATION

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



DISCLAIMER: This Safety Data Sheet has been prepared in accordance with the Globally Harmonized System for the Classification and Labelling of Chemicals (GHS). To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries makes any warranty of merchantability or any other warranty, expressed or implied, which respect to such information, and we assume no liability resulting from its use. In no event shall Rankin Biomedical be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages resulting from use of or reliance upon this information.

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