



HI-VALLEY CHEMICAL

LABORATORY PRODUCTS

1134 W. 850 N. CENTERVILLE, UT 84014
(801) 295-9591 Fax (801) 295-9448
www.hvchemical.com

SAFETY DATA SHEET

Hi Valley Chemical

Ethyl Alcohol, Denatured 200 Proof

1 PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: Ethyl Alcohol, Denatured 200 Proof
Synonyms: Denatured alcohol, ethanol
SDS Number: R-058
Product Code: 513701-PT, 513701-QT, 513701-1, 513701-5, 513701-55
Revision Date: 4/14/2016
Version: 1.1
Chemical Formula: C₂H₆O
Product Use: Industrial or laboratory
Supplier Details: High Valley Products, Inc.
 1134 West 850 North
 Centerville, Utah 84014
Emergency: PERS: 800-633-8253
Phone: 801-295-9591
Email: sales@hvchemical.com
Web: www.hvchemical.com

2 HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

GHS Classification in Accordance with 29 CFR 1910 (OSHA HCS):

- Physical, Flammable Liquids, 2
- Health, Acute toxicity, 4 Oral
- Health, Skin corrosion/irritation, 2
- Health, Serious Eye Damage/Eye Irritation, 2 B
- Health, Specific target organ toxicity - Single exposure, 1

GHS Label Elements, Including Precautionary Statements

GHS Signal Word: **DANGER**

GHS Hazard Pictograms:



GHS Hazard Statements:

- H225 - Highly flammable liquid and vapor
- H302 - Harmful if swallowed
- H315 - Causes skin irritation
- H320 - Causes eye irritation
- H370 - Causes damage to organs

GHS Precautionary Statements:

- P210 - Keep away from heat/sparks/open flames/hot surfaces. No smoking
- P233 - Keep container tightly closed.
- P240 - Ground/bond container and receiving equipment.
- P241 - Use explosion-proof electrical/ventilating/light/equipment.
- P242 - Use only non-sparking tools.
- P243 - Take precautionary measures against static discharge.
- P260 - Do not breathe dust/fume/gas/mist/vapors/spray.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P301+310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P303+361+353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P307+311 - IF exposed: Call a POISON CENTER or doctor/physician.
P370+378 - In case of fire: Use _ for extinction.
P403+235 - Store in a well ventilated place. Keep cool.
P501 - Dispose of contents/container to _

3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

Cas#	%	Chemical Name
64-17-5	100%	Ethanol

4 FIRST AID MEASURES

Inhalation: If inhaled, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.

Skin Contact: Promptly flush skin with water until all chemical is removed.
Remove contaminated clothing immediately.
If irritation persists get medical attention.

Eye Contact: Immediately flush eyes with large amounts of water for at least 15 minutes, lifting eyelids occasionally to facilitate irrigation.
If irritation persists, seek medical attention.

Ingestion: If victim is conscious and alert, give 2-4 cupfuls of water or milk. Never give anything by mouth to an unconscious person. Get medical attention. If victim is conscious and alert, give 2-4 cupfuls of water or milk. Never give anything by mouth to an unconscious person. Get medical attention immediately. Induce vomiting by giving one teaspoon of Syrup of Ipecac.

Note to Physician

Symptoms will vary with alcohol level of the blood. Mild alcohol intoxication occurs at blood levels between 0.05-0.15%. Approximately 25% of individuals show signs of intoxication at these levels. Above 0.15% the person is definitely under the influence of ethanol; 50-95% of individuals are clinically intoxicated at these levels. Severe poisoning occurs when the blood ethanol level is 0.3-0.5%. Above 0.5% the individual will be comatose and death can occur. The unabsorbed ethanol should be removed by gastric lavage after intubating the patient to prevent aspiration. Avoid the use of depressant drugs and administering excessive amounts of fluids.

5 FIRE FIGHTING MEASURES

Flammability: Flammable
Flash Point: 14°C (57°F)
Flash Point Method: Closed cup
Autoignition Temp: 363°C (685°F) - (for 100% ethyl alcohol)

Extinguishing Media:

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Use water spray to cool unopened containers.

Protective equipment and precautions for firefighters:

Wear self-contained breathing apparatus and other protective clothing.

Specific hazards arising from the chemical:

May produce a floating fire hazard.

| Static ignition hazard can result from handling and use.

| Vapors may travel to source of ignition and flash back.

| Vapors may settle in low or confined spaces.

Alcohols burn with a pale blue flame which may be extremely hard to see under normal lighting conditions.

Personnel may only be able to feel the heat of the fire without seeing flames. Extreme caution must be exercised in fighting alcohol fires. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. Always stay away from tanks engulfed in fire.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions:

Do not inhale vapors, 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.

Environment precautions:

Stop leak and contain if safe to do so. Prevent material from entering drains.

Containment and clean up:

Highly flammable liquid. Eliminate all sources of ignition. All equipment used when handling this product must be grounded. A vapor suppressing foam may be used to reduce vapors. Do not touch or walk through spilled material. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations. Use non sparking tools to collect absorbed material.

7**HANDLING AND STORAGE****Handling Precautions:**

Do not get on skin or in eyes. Do not inhale vapor or mist. Keep away from sources of ignition. NO smoking. Take measures to prevent the buildup of electrostatic charge. Metal containers should be grounded.

Storage Requirements:

Keep away from heat, sparks, and flames. Store in cool/dry area.

8**EXPOSURE CONTROLS/PERSONAL PROTECTION****Engineering Controls:**

Use explosion -proof ventilation equipment to stay below exposure limits. Provide adequate ventilation. Provide eyewash station and safety shower.

Personal Protective Equipment:

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 gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves 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.

Full contact: Material: butyl-rubber Minimum layer thickness: 0.3 mm Break through time: 480 min
Material tested: Butoject (KCL 897 / Aldrich Z677647, Size M)

Splash contact: Material: Nitrile rubber Minimum layer thickness: 0.2 mm Break through time: 38 min
Material tested: Dermatrill P (KCL 743 / Aldrich Z677388, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection: impervious clothing, 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 multi- purpose 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.

Ethanol (64-17-5) [100%]

Components with workplace control parameters

TWA 1,000 ppm USA. ACGIH Threshold Limit Values (TLV)

Upper Respiratory Tract irritation

Confirmed animal carcinogen with unknown relevance to humans

TWA 1,000 ppm USA. Occupational Exposure Limits
1,900 mg/m³ (OSHA) - Table Z-1 Limits for Air Contaminants

The value in mg/m³ is approximate.

TWA 1,000 ppm USA. NIOSH Recommended Exposure Limits
1,900 mg/m³

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PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Colorless	Odor:	Characteristic
Physical State:	Liquid	Solubility:	Completely soluble in water.
Odor Threshold:	No data available	Freezing/Melting Pt.:	-114°C (-173°F) (for 100% ethyl alcohol)
Spec Grav./Density:	0.79	Flash Point:	14°C (57°F) - closed cup
Viscosity:	No data available	Vapor Density:	1.6 (air =1)
Boiling Point:	78°C (173°F) (for 100% ethyl alcohol)	Auto-Ignition Temp:	363°C (685.4°F) - (Ethyl Alcohol)
Flammability:	Flammable	UFL/LFL:	3.3%(V) / 19%(V)
Partition Coefficient:	No data available		
Vapor Pressure:	6.4 kPa (48 mmHg) at 20 °C (68 °F) (for 100%)		
pH:	No data available		
Evap. Rate:	3.2 (buyl acetate = 1)		
Decomp Temp:	No data available		

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STABILITY AND REACTIVITY

Chemical Stability:	Stable under normal conditions.
Conditions to Avoid:	Excessive heat or cold.
Materials to Avoid:	Strong Oxidizing Agents. Strong Acids;
Hazardous Decomposition:	Carbon oxides are expected to be, under fire conditions, the primary hazardous decomposition products.
Hazardous Polymerization:	No data available.

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TOXICOLOGICAL INFORMATION

Ethanol (64-17-5) [100%]

Information on toxicological effects

Acute toxicity:

LD50 Oral - rat - 7,060 mg/kg Remarks: Lungs, Thorax, or Respiration:Other changes.

LC50 Inhalation - rat - 10 h - 20000 ppm

Dermal: no data available

Skin corrosion/irritation: Skin - rabbit Result: No skin irritation - 24 h (OECD Test Guideline 404)

Serious eye damage/eye irritation: Eyes - rabbit Result: Mild eye irritation - 24 h (OECD Test Guideline 405)

Respiratory or skin sensitisation: no data available

Germ cell mutagenicity: no data available

Carcinogenicity:

Carcinogenicity - mouse - Oral:

Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Liver: Tumors. Blood: Lymphomas including Hodgkins disease.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: no data available

Reproductive toxicity - Human - female - Oral:

Effects on Newborn: Apgar score (human only). Effects on Newborn: Other neonatal measures or effects. Effects on Newborn: Drug dependence.

Specific target organ toxicity - single exposure: no data available

Specific target organ toxicity - repeated exposure: no data available

Aspiration hazard: no data available

Additional Information:

RTECS: KQ6300000

Central nervous system depression, narcosis, Damage to the heart., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Stomach - Irregularities - Based on Human Evidence

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ECOLOGICAL INFORMATION

Ethanol (64-17-5) [100%]

Information on ecological effects

Toxicity: no data available

Persistence and degradability: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects: no data available

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DISPOSAL CONSIDERATIONS

Dispose of in accordance with local regulations.

UN1170, Ethanol or Ethyl alcohol or Ethanol solutions or Ethyl alcohol solutions, 3, PGII

Component (CAS#) [%] - CODES

Ethanol (64-17-5) [100%] MASS, OSHAWAC, PA, TSCA, TXAIR

Regulatory CODE Descriptions

MASS = MA Massachusetts Hazardous Substances List

OSHA WAC = OSHA Workplace Air Contaminants

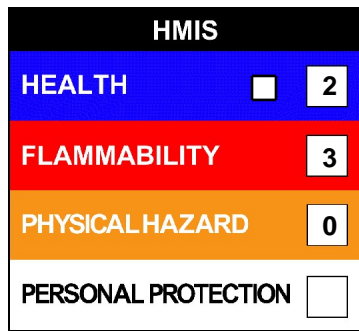
PA = PA Right-To-Know List of Hazardous Substances

TSCA = Toxic Substances Control Act

TXAIR = TX Air Contaminants with Health Effects Screening Level

NFPA: Health = 2, Fire = 3, Reactivity = 0, Specific Hazard = n/a

HMIS III: Health = 2, Fire = 3, Physical Hazard = 0



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Author: HVC

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