

Safety Data Sheet

ACID ALCOHOL, 1% HCl in 70% ALCOHOL

Section 1 - Chemical Product and Company Identification

SDS Name: Acid Alcohol, 1% HCl in 70% Alcohol

Catalog Numbers: SO-261, A-101-3, A-102-3, A-103-3, A-108-6, A-109-4, A-116-8, A-142-3, E-312-4, F-370-5, F-396-13, G-486-3, J-608-3, L-752-2, L-753-2, L-754-3, F-375-9

Company Identification: Transene Company, Inc., DBA ROWLEY BIOCHEMICAL, Inc.
10 ELECTRONICS AVENUE
DANVERS, MA 01923

For information, call: 978-739-4883

Emergency Number: 800-424-9300

For CHEMTREC assistance, call: 800-424-9300

Section 2 - Hazards Identification

GHS Classifications

H225-Flammable liquids: 2

H290-Corrosive to metals: 1

H301-Acute toxicity, oral: 3

H314-Skin corrosion/irritation: 1B

H318-Serious Eye damage/Eye Irritation: 1

H332-Acute toxicity, inhalation: 4

H370-Specific target organ toxicity, single exposure: 1

H372-Specific target organ toxicity, repeated exposure: 1

Pictograms or Hazard symbols and Hazard statement(s):



Signal word: Danger

Hazard statements:

H225-Highly flammable liquid and vapour

H290-May be corrosive to metals
H301-Toxic if swallowed
H314-Causes severe skin burns and eye damage
H318-Causes serious eye damage
H332-Harmful if inhaled
H370-Causes damage to organs (target organs: respiratory system, central nervous system, optic nerve).
H372-Causes damage to organs through prolonged or repeated exposure (target organs: kidney, liver, blood).

Precautionary Statements:

P210-Keep away from heat/sparks/open flames/hot surfaces.-No smoking.
P233-Keep container tightly closed.
P234-Keep only in original container.
P240-Ground/bond container and receiving equipment.
P241-Use explosion-proof electrical/ventilating/lighting/equipment.
P242-Use only non-sparking tools.
P243-Take precautionary measures against static discharge.
P260-Do not breathe dust/fume/gas/mist/vapours/spray.
P261-Avoid breathing dust/fume/gas/mist/vapours/spray.
P264-Wash thoroughly after handling.
P270-Do not eat, drink or smoke when using this product.
P271-Use only outdoors or in a well-ventilated area.
P280-Wear protective gloves/eye protection/face protection/protective clothing.
P301+P310-If swallowed: Immediately call a Poison Center or doctor/physician.
P301+P330+P331-If swallowed: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353-If on skin (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340-If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338-If in eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P307+P311-If exposed: Call a Poison Center or doctor/physician.
P310-Immediately call a Poison Center or doctor/physician.
P312-Call a Poison Center or doctor/physician if you feel unwell.
P314-Get medical advice/attention if you feel unwell.
P330-Rinse mouth.
P363-Wash contaminated clothing before reuse.
P370+P378-In case of fire: Use dry chemical, carbon dioxide, dry sand, water spray or alcohol-resistant foam to extinguish.
P390-Absorb spillage to prevent material damage.
P403+P235-Store in a well-ventilated place. Keep cool.
P405-Store locked up.
P406-Store in corrosive resistant container with a resistant inner liner.
P501-Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent
64-17-5	Ethyl alcohol	58 v/v
67-63-0	Isopropyl alcohol	7 v/v
67-56-1	Methyl alcohol	3 v/v
7647-01-1	Hydrochloric acid	1 v/v
7732-18-5	Water	balance

Section 4 - First Aid Measures

Eye Exposure: In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Dermal Exposure: In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes.

Oral Exposure: If swallowed, seek immediate medical advice.

Inhalation Exposure: If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

Section 5 - Fire Fighting Measures

General Information: Containers can build up pressure if exposed to heat and/or fire. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire. Flammable Liquid. Can release vapors that form explosive mixtures at temperatures above the flashpoint. Use water spray to keep fire-exposed containers cool. Containers may explode in the heat of a fire.

Extinguishing Media: For small fires, use dry chemical, carbon dioxide, dry sand, water spray or alcohol-resistant foam. For large fires, use water spray, fog, or alcohol-resistant foam. Use water spray to cool fire-exposed containers. Water may be ineffective. Do NOT use straight streams of water.

Flash Point: no information available

Autoignition Temperature: no information available

Explosion Limits, Lower: no information available

Upper: no information available

NFPA Rating: (estimated) Health: 2; Flammability: 4; Instability: 0

NOTE: Static discharge could act as an ignition source.

Section 6 - Accidental Release Measures

Procedure(s) of Personal Precaution(s):

Wear protective gear. Eliminates all sources of ignition.

Methods for Cleaning up: Absorb with sand, earth or vermiculite. Carefully sweep up and containerize for proper disposal.

Section 7 - Handling and Storage

Use care when handling. Wash thoroughly after handling. Store capped at room temperature. Keep away from incompatible materials. Protect from heat. Vapors heavier than air, may travel considerable distance and ignite or explode.

NOTE: Static discharge could act as an ignition source.

Section 8 - Exposure Controls, Personal Protection
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Engineering Controls: Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Ethyl alcohol	1000 ppm STEL	1000 ppm TWA; 1900 mg/m ³ TWA 3300 ppm IDLH	1000 ppm TWA; 1900 mg/m ³ TWA
Isopropyl alcohol	200 ppm TWA; 400 ppm STEL	2000 ppm IDLH; 400 ppm TWA	400 ppm TWA, 980 mg/m ³ TWA
Methyl alcohol	250 ppm STEL 200 ppm TWA	20 ppm TWA 260 mg/m ³ TWA 6000 ppm IDLH 250 ppm STEL 325 mg/m ³ STEL	200 ppm TWA 260 mg/m ³ TWA

OSHA Vacated PELs: Ethyl alcohol: 1000 ppm TWA; 1900 mg/m³ TWA
Isopropyl alcohol: 400 ppm TWA; 980 mg/m³ TWA
Methyl alcohol: 200 ppm TWA; 260 mg/m³ TWA; 250 ppm STEL;
325 mg/m³ STEL

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Appearance: Clear

Odor: Alcohol-like

Vapor Pressure: No information available

Odor threshold: No information available

Vapor Density: No information available

pH: 1.19-1.39

Relative density: No information available

Melting point/freezing point: No information available

Solubility: soluble in water

Boiling Point: No information available

Flash point: No information available

Evaporation Rate: No information available

Flammability (solid, gas): No information available

Partition coefficient: n-octanol/water: No information available

Auto-ignition temperature: No information available

Decomposition temperature: No information available

Viscosity: No information available

Specific Gravity/Density: No information available

NOTE: Static discharge could act as an ignition source.

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures. Reacts violently with oxidizers: Risk of fire/explosion.

Conditions to Avoid: Direct sunlight. Extremely high or low temperatures. Open flame. Incompatible materials, ignition sources, excess heat, oxidizers.

Incompatibilities with Other Materials: Strong oxidizing agents, acids, alkali metals, ammonia, hydrazine, peroxides, sodium, acid anhydrides, calcium hypochlorite, chromyl chloride, nitrosyl perchlorate, bromine pentafluoride, perchloric acid, silver nitrate, mercuric nitrate, potassium-tert-butoxide, magnesium perchlorate, acid chlorides, platinum, uranium hexafluoride, silver oxide, iodine heptafluoride, acetyl bromide, disulfuryl difluoride, tetrachlorosilane + water, acetyl chloride, permanganic acid, ruthenium (VIII) oxide, uranyl perchlorate, potassium dioxide, most common metals, strong bases, metal oxides, amines, hydroxides, cyanides, sulfides, sulfites, formaldehyde, and carbonates.

Hazardous Decomposition Products: Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide, hydrogen gas, hydrogen chloride fumes.

Section 11 - Toxicological Information

RTECS#: Ethyl Alcohol CAS# 64-17-5: KQ6300000

Ethyl Alcohol CAS# 64-17-5:

LD50 Oral: 7060 mg/kg (Rat)

LD50 Dermal: not listed

LC50 Inhalation: 20000 ppm (Rat) 10 h

Draize test, rabbit, eye: 500 mg Severe.

Draize test, rabbit, eye: 500 mg/24H Mild.
Draize test, rabbit, skin: 20 mg/24H Moderate.

Carcinogenicity: Ethyl Alcohol CAS# 64-17-5 is listed by the IARC (Group 1, Carcinogenic to Humans), the NTP, and the ACGIH (A3, Animal Carcinogen). Ethyl Alcohol is listed by California Prop. 65 as a developmental carcinogen (alcoholic beverages).

RTECS#: Methyl Alcohol CAS# 67-56-1: PC1400000
Methyl Alcohol CAS# 67-56-1:

LD50 Oral: 6200 mg/kg (Rat)
LD50 Dermal: 15800 mg/kg (Rabbit)
LC50 Inhalation: 64000 ppm (Rat) 4 h

Carcinogenicity: Methyl Alcohol CAS# 67-56-1 is not listed by the IARC, the NTP, or the ACGIH. Methyl Alcohol is listed by California Prop. 65 (developmental).

Epidemiology: Ethanol has been shown to produce fetotoxicity in the embryo or fetus of laboratory animals. Prenatal exposure to ethanol is associated with a distinct pattern of congenital malformations that have collectively been termed the "fetal alcohol syndrome".

Teratogenicity: Oral, Human - woman: TDLo = 41 gm/kg (female 41 week(s) after conception) Effects on Newborn - Apgar score (human only) and Effects on Newborn - other neonatal measures or effects and Effects on Newborn - drug dependence.

Reproductive Effects: Intrauterine, Human - woman: TDLo = 200 mg/kg (female 5 day(s) pre-mating) Fertility - female fertility index (e.g. # females pregnant per # sperm positive females; # females pregnant per # females mated).

Neurotoxicity: No information available.

Mutagenicity: DNA Inhibition: Human, Lymphocyte = 220 mmol/L.; Cytogenetic Analysis: Human, Lymphocyte = 1160 gm/L.; Cytogenetic Analysis: Human, Fibroblast = 12000 ppm.; Cytogenetic Analysis: Human, Leukocyte = 1 pph/72H (Continuous).; Sister Chromatid Exchange: Human, Lymphocyte = 500 ppm/72H (Continuous).

Other Studies: Standard Draize Test(Skin, rabbit) = 20 mg/24H (Moderate) Standard Draize Test: Administration into the eye (rabbit) = 500 mg (Severe).

RTECS#: Isopropyl Alcohol CAS# 67-63-0: Not Available

Isopropyl Alcohol CAS# 67-63-0:

LD50 Oral: 5840 mg/kg (Rat)
LD50 Dermal: 12870 mg/kg (Rabbit); 13900 mg/kg (Rat)
LC50 Inhalation: 72.6 mg/L (Rat) 4 h

Carcinogenicity: Isopropyl Alcohol CAS# 67-63-0 is not listed by the IARC, the NTP, the ACGIH, or California Prop. 65.

CAS#7647-01-0 Hydrochloric Acid

Inhalation rat LC50: 4500 ppm/1hr.

Oral rabbit LD50: 1350 mg/kg.

Investigated as a tumorigen, mutagen, and reproductive effector.

Carcinogenicity: Hydrochloric Acid CAS# 7647-01-0 is not listed by the IARC, the NTP, the ACGIH, or CA Prop. 65.

The toxicological properties have not been fully investigated.

Section 12 - Ecological Information

Ecology: Do not release to the environment. Do not release into drains.

Ecotoxicity: Ethyl Alcohol CAS# 64-17-5:

EC50 Freshwater Algae = 275 mg/l (Chlorella vulgaris) 72 h

LC50 Freshwater Fish = 14200 mg/l (fathead minnow, Pimephales promelas) 96 h

EC50 Water Flea = 9268 mg/L 48 h, 10800 mg/L 24 h

Ecotoxicity: Isopropyl Alcohol CAS# 67-63-0:

EC50 Freshwater Algae = >10000 mg/L (Desmodesmus subspicatus) 72 h

LC50 Freshwater Fish = 11130 mg/l (fathead minnow, Pimephales promelas) 96 h

EC50 Water Flea = 13299 mg/L 48 h, 9714 mg/L 24 h

Ecotoxicity: Methyl Alcohol CAS# 67-56-1

EC50 Freshwater Algae = not listed

LC50 Freshwater Fish = >10000 mg/l (fathead minnow, Pimephales promelas) 96 h

EC50 Water Flea = >10000mg/L 24 h

Ecotoxicity: Hydrochloric Acid CAS# 7647-01-1

LC50 Freshwater Fish = 282 mg/L (gambusia affinis) 96 h

EC50 Water Flea = 56 mg/L 72 h

Mobility in Soil: Will likely be mobile in the soil due to its water solubility.

Other Adverse Effects: Avoid release to the environment. Will likely be mobile in the environment due to its volatility.

Section 13 - Disposal Considerations

DISPOSAL: Dispose of in accordance with all federal, state, and local regulations.

Section 14 – Transport Information

DOT

Proper shipping name: Alcohols, N.O.S.

UN1987

PG II

Hazard class 3 (flammable)

Section 15 - Regulatory Information

Canada Regulatory Information

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the SDS contains all the information required by the CPR.

Section 16 - Additional Information

SDS Creation Date: 10/20/12

Revision #1. RC 8/20/13 #2. RC 2/17/16 #3. 8-2-19

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