

SAFETY DATA SHEET

SUPERIOR Acetic Acid

DATE REVISED: June 23, 2017

Product Name/Part Number: Superior Acetic Acid

Manufacturer: Superior Flux & Mfg. Co. 6615 Parkland Blvd. Cleveland OH, 44139

Emergency Phone Number: 1-800-424-9300 (CHEMTREC)

Other Information Calls: (440) 349-3000

SECTION 1 -- IDENTIFICATION

Common Name: Acetic Acid, Glacial

CAS Number: 64-19-7

Formula: C₂H₄O₂

SECTION 2 – HAZARDS IDENTIFICATION

GHS Classification:

Flammable liquid (Category 3) H226

Skin corrosion (Category 1A) H314

Serious eye damage (Category 1) H318

Label Elements

Hazard Statement(s)

H226 Flammable liquid and vapor
H314 Causes severe skin burns and eye damage
H318 Causes severe eye damage

Precautionary statement(s)

P210 Keep away from sparks and open flames. No smoking.
P233 Keep container tightly closed.
P240 Ground container and receiving equipment.
P241 Use explosion-proof electrical and ventilation equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge
P264 Wash skin thoroughly after handling
P280 Wear protective clothing and face protection
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338+P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call POISON CENTER
P363 Wash contaminated clothing before reuse.
P370+P378 In case of fire: Use dry sand, dry chemical or alcohol-resisant foam for extinction
P403+P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up
P501 Dispose of contents to an approved waste disposal plant.

Hazards not otherwise classified or not covered by GHS: None



Pictogram(s):

Signal Word: Danger

See section XVI for full text of H-Statements

SECTION 3 – COMPOSITION INFORMATION

Components	CAS Number	%
Acetic Acid	64-19-7	≤100

None of the materials in this product are listed in NTP, IARC, or OSHA as carcinogens.

SECTION 4 – FIRST AID MEASURES

Description of first aid measures

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

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

Eyes: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

Skin: Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most Important Symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in section 2 (labeling)

Medical Conditions Generally Aggravated by Exposure: Any weakness of the lungs, kidneys or liver will be aggravated.

OSHA Permissible Exposure Limit (PEL): 10ppm (~25 mg/m³)

ACGIH Threshold Limit Value (TLV): 10 ppm

SECTION 5 – FIREFIGHTING MEASURES

Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special Hazards: No data available

Advice for firefighters: Wear self-contained breathing apparatus for firefighting if necessary

Further information Use water spray to cool unopened containers.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment: Use personal protective equipment. Avoid breathing 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. *See section 8 for personal protection.*

Environmental Precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

In Case Material is spilled: Contain spillage, then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations.

SECTION 7 - HANDLING AND STORAGE

Storage Requirements: Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Moisture sensitive

Handling Precautions: Avoid inhalation of vapor or mist. Keep tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

For precautions see Section 2

SECTION 8 - CONTROL MEASURES

Respiratory Protection: Where risk assessment shows air-purifying respirators are appropriate, use a full-face respirator with multi-purpose combination (USA) or 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 (USA) or CEN (EU).

Protective Gloves: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal techniques (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good lab practices. Wash and dry hands after handling.

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: Nature latex/chloroprene

Minimum layer thickness: 0.6 mm

Break through time: 32 min

Material tested: Lapren® (KCL 706 / Aldrich Z677558, Size M)

Data Source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de,

Test method: EN374

Eye Protection: Use tightly fitting safety goggles. Faceshield: 8-inch minimum. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (USA) or EN 166 (EU)

Body Protection: Complete suit protecting against chemical, 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

Control of environmental exposure: Prevent (further) leakage/spillage if safe to do so. Do not let product enter drains.

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.

SECTION 9 - PHYSICAL AND CHEMICAL CHARACTERISTICS

Appearance:	Colorless liquid
Odor:	Pungent
Odor Threshold	No data available
pH:	2.4 at 60g/L
Melting/Freezing Point:	16.2°C / 61.2°F (literary)
Ini. Boiling Point/Range:	117-118°C / 243-244°F (literary)
Flash Point:	No data available
Evaporation Rate:	No data available
Flammability (solid/gas)	No data available
Upper/lower flammability or explosive limits	Upper explosion limit: 19.9% (V) Lower explosion limit: 4% (V)
Vapor Pressure	55.0 mmHg at 50°C / 122°F 11.4 mmHg at 20°C / 68°F
Vapor Density	No data available
Relative Density	1.052 (Water = 1)
Water Solubility	Totally miscible
Partition coefficient: n-octanol/water	log Pow: -0.17
Auto-ignition Temperature	485°C / 905°F
Decomposition Temperature	No data available
Viscosity	No data available
Explosive Properties	No data available
Oxidizing Properties	No data available
Surface Tension	28.8 mN/m at 10°C / 50°F

SECTION 10 - STABILITY AND REACTIVITY

Reactivity: No data available

Stability: Product is stable under recommended storage conditions

Possibility of hazardous reactions: No data available

Conditions to Avoid: Heat, sparks and flames

Incompatibility: Oxidizing agents, soluble carbonates, soluble phosphates, hydroxides, metals, peroxides, permanganates, amines, alcohols and nitric acid

Hazardous Decomposition Products Carbon oxides (Under fire conditions)

In the event of fire: See Section 5

SECTION 11 - TOXICOLOGICAL INFORMATION

Acute Toxicity Data

- 1) **Oral:** LD-50 (rat): 3,310 mg/kg
- 2) **Inhalation:** LC-50 (mouse): 1 hr – 5,620 ppm.
Remarks: Sense and special organs: Eye – Conjunctive irritation
LC-50 (rat): 4 hrs – 11.4mg/L
- 3) **Dermal:** LD-50 (rabbit): 1,112 mg/kg
Skin corrosion and/or irritation
Skin (rabbit): Causes severe burns
Serious eye damage and/or eye irritation
Eyes (rabbit): Corrosive to eyes

Respiratory or skin sensitization No data available

Germ cell mutagenicity No data available

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

Reproductive toxicity No data available

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: AF1225000

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, Ingestion or inhalation of concentrated acetic acid causes damage to tissues of the respiratory and digestive tracts. Symptoms include: hematemesis, bloody diarrhea, edema and/or perforation of the esophagus and pylorus, pancreatitis, hematuria, anuria, uremia, albuminuria, hemolysis, convulsions, bronchitis, pulmonary edema, pneumonia, cardiovascular collapse, shock, and death. Direct contact or exposure to high concentrations of vapor with skin or eyes can cause: erythema, blisters, tissue destruction with slow healing, skin blackening, hyperkeratosis, fissures, corneal erosion, opacification, iritis, conjunctivitis, and possible blindness., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Stomach – irregularities – based on human evidence.

SECTION 12 - ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish

Semi-static test LC50 - *Oncorhynchus mykiss* (rainbow trout): >1,000 mg/l - 96 hr (OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates

EC50 - *Daphnia magna* (Water flea): >300.82 mg/l - 48 hr (OECD Test Guideline 202)

Persistence and degradability

Biodegradability Aerobic - Exposure time 30 d
Result: 99 % - Readily biodegradable
Remarks: Expected to be biodegradable

Biochemical Oxygen Demand (BOD) 880 mg/g

Bioaccumulative potential No data available

Mobility in soil No data available

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

Other adverse effects

Additional ecological info No data available

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste treatment methods

Product Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging Dispose of as unused product.

SECTION 14- TRANSPORTATION

D.O.T. (USA)

Proper Shipping Name: Acetic acid, glacial

Identification Number: UN2789

Hazard Class: 8 (3)

Packing Group: II

Reportable Quantity (RQ): 5,000 lbs

Poison Inhalation Hazard: No

SECTION 15 - REGULATORY INFORMATION

SARA 302 Components No Chemicals in this material are subject to the reporting requirement of SARA Title III, Section 302.

SARA 313 Components This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 302 Components Fire Hazard, Acute Health Hazard, Chronic Health Hazard

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16 - OTHER INFORMATION

Full text of H-Statements and P-Statements referred to in Section II and/or III.

H226 Flammable liquid and vapor
H314 Causes severe skin burns and eye damage
H318 Causes serious eye damage

HMIS Rating

Health	3
Chronic Health Hazard	*
Flammability	2
Reactivity	0

Further information:

Judgments as to the suitability of information herein or the purchaser's purposes are necessarily the purchaser's responsibility. The above information does not represent any guarantee of the properties of the product. It is believed to be correct, but does not purport to be all inclusive and should be used only as a guide. Reasonable care has been taken in the preparation of this material, and is based on the present state of our knowledge.

Superior Flux & Mfg. Co. shall not be held liable for any damage resulting from handling or from contact with the above product.

Reference(s):

Sigma-Aldrich – MSDS for Product No. 537020, Rev. 5.7 (24 May 2016).

Preparation information

Superior Flux & Mfg. Co.
440-349-3000

Version 2.1

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