Complies with EC no. 1907/2006
Date of Issue: 11/27/2001
Date of Revision: 12/31/2024R

Safety Data Sheet (SDS)

Section 1: Chemical Product and Company Identification

Cat#: 6304, 6315, 6380, 6320

Part Name: Glacial Acetic Acid

Supplier: **Decon Laboratories Inc.**
460 Glennie Circle King of Prussia, PA 19406
SDS Telephone # (610) 755-0800

Emergency Telephone Numbers
US Chemtrec: (800) 424-9300
Canada: (703) 527-3887

Identified uses: Laboratory use

Section 2: Hazards Identification:

Hazard Overview

Flammable.
Causes severe burns

GHS Classification

Flammable Liquids (Category 3)
Acute toxicity, Oral (Category 5)
Acute toxicity, Inhalation (Category 3)
Acute toxicity, Dermal (Category 4)
Skin corrosion (Category 1A)
Serious Eye Damage (Category 1)
Skin sensitization (Category 1)
Acute Aquatic toxicity (Category 3)

Signal Word: DANGER

Hazard and Precautionary Statements

H226 Flammable liquid and vapor
H314 Causes severe skin burns and eye damage
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305/351/338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
310 Immediately call a POISON CENTER or doctor

NFPA Rating

Hazard Ratings:
These ratings are Decon Laboratories Inc.'s own assessments of the properties of the material using the ANSI/NFPA 704 Standard. Additional information can be found by consulting in the NFPA published ratings lists (List 325 and list 49).

If no data is listed the information is not available

Health 3 Flammability 2 Reactivity 0

Section 3: Composition/ Information on ingredients

Note: Items listed with a CASRN number have no CAS# available

Item#	Name	EC#	CAS #	% in Product
1	Acetic Acid	200-580-7	64-19-7	99 - 100

Section 4: First Aid Measures

In all cases, immediately call a POISON CENTER or doctor / physician.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give Oxygen. Get medical attention immediately.

Ingestion: DO NOT INDUCE VOMITING! Give large quantities of water or milk, if available. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Skin Contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Call a physician.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

Section 5: Fire-Fighting Measures

Fire: Flash point: 39C (102F) CC / Autoignition temperature: 465C / Flammable limits in air % by volume: lel: 4.0; uel: 19.9 / Flammable Liquid and Vapor!

Explosion: Above flash point, vapor-air mixtures are explosive within flammable limits noted above. Vapors can flow along surfaces to distant ignition source and flash back. Contact with strong oxidizers may cause fire. Reacts with most metals to produce Hydrogen gas, which can form an explosive mixture with air.

Fire Extinguishing Media: Water spray, dry chemical, Alcohol foam, or Carbon Dioxide. Water spray may be used to keep fire exposed containers cool.

Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode. Water diluted acid can react with metals to form Hydrogen gas.

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Section 6: Accidental Release measures

Personal Precautions, Protective Equipment and Emergency Procedures: Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

Environmental Precautions and Methods and Materials for Containment and Cleaning Up: Use water spray to dilute spill to a nonflammable mixture. Contain and recover liquid when possible. Do not let product enter drains. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth,) and place in a chemical waste container. Use non-sparking tools and equipment. Do not use combustible materials, such as saw dust. Do not flush to sewer! If a leak or spill has not ignited, use water spray to disperse the vapors, to protect personnel attempting to stop leak, and to flush spills away from exposures. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

Section 7: Handling and Storage

Precautions for Safe Handling and Conditions for Safe Storage, Including Any Incompatibilities: Protect against physical damage. Store in a cool, dry well-ventilated location, away from any area where the fire hazard may be acute. Outside or detached storage is preferred. Separate from incompatibles. Containers should be bonded and grounded for transfers to avoid static sparks. Storage and use areas should be No Smoking areas. Use non-sparking type tools and equipment, including explosion proof ventilation. Store above 17C (63F.) Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid.) Observe all warnings and precautions listed for the product.

Section 8: Exposure Controls/ Personal Protection

Airborne Exposure Limits:
OSHA Permissible Exposure Limit (PEL): 10 ppm (TWA)
ACGIH Threshold Limit Value (TLV): 10 ppm (TWA); 15 ppm (STEL)

Ventilation System: A system of local and / or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

Personal Respirators (NIOSH Approved): If the exposure limit is exceeded and engineering controls are not feasible, a full face piece respirator with organic vapor cartridge may be worn up to 50 times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full face piece positive- pressure, air-supplied respirator. WARNING: Air purifying respirators do not protect workers in Oxygen-deficient atmospheres.

Skin Protection: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Eye Protection: Use chemical safety goggles and / or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

The use of eye protection in the form of safety glasses with side shields and the use of skin protection for hands in the form of gloves are considered minimum and non-discretionary in work places and laboratories. Any recommended personal protection equipment or environmental equipment is to be considered as additional to safety glasses and gloves.

Chemical-resistant gloves should be worn whenever this material is handled. The glove material has to be impermeable and resistant to the product. Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough. Rinse and remove gloves immediately after use. Wash hands with soap and water. All glove recommendations presume that the risk of exposure is through splash and not intentional immersion of the hands into the product. Since glove permeation data does not exist for this material, no recommendation for the glove material can be given for the product. Permiation data must be obtained from the glove manufacturer to determine if the glove is suitable for the task.

Section 9: Physical and Chemical Properties

Appearance: Clear, colorless liquid
Odor: Strong, vinegar-like
Odor Threshold: Not determined
pH: 2.4 (1.0M solution)
% Volatiles by volume @ 21C (70F): 100
Melting Point: 16.6C (63F)
Boiling Point / Boiling Range: 118C (244F)
Flash Point: 39C (102F)
Evaporation Rate (BuAC=1): 0.97
Flammability: Concentrated Acetic Acid can be ignited with difficulty.
Upper / Lower Flammability or Explosive Limits: Flammable risk if the ambient temperature exceeds 39 °C (102 °F,) and can form explosive mixtures with air above this temperature (explosive limits: 5.4–16%.)
Vapor Pressure (mm Hg): 11 @ 20C (68F)
Vapor Density (Air=1): 2.1
Relative Density: 1.01
Solubility: Infinitely soluble
Partition Coefficient: n-octanol / water: No data available
Auto-ignition Temperature:465C
Decomposition Temperature: No data available
Viscosity: 1.22 at 20C, centipoises

Section 10: Stability and Reactivity:

Reactivity and / or Chemical Stability: Stable under ordinary conditions of use and storage. Heat and sunlight can contribute to instability.

Possibility of Hazardous Reactions and Conditions to Avoid: Heat, flame, ignition sources, freezing, incompatibles.

Incompatible Materials: Acetic Acid is incompatible with Chromic Acid, Nitric Acid, Ethylene Glycol, Perchloric Acid, Phosphorous Trichloride, oxidizers, Sodium Peroxide, strong caustics, most metals

(except Aluminum), carbonates, hydroxides, oxides, and phosphates.

Hazardous Decomposition Products: Carbon Dioxide and Carbon Monoxide may form when heated to decomposition. May also release toxic and irritating vapors.

Section 11: Toxicological Information

Emergency Overview: POISON! DANGER! CORROSIVE. LIQUID AND MIST CAUSE SEVERE BURNS TO ALL BODY TISSUE. MAY BE FATAL IF SWALLOWED. HARMFUL IF INHALED. INHALATION MAY CAUSE LUNG AND TOOTH DAMAGE. FLAMMABLE LIQUID AND VAPOR.

Potential Health Effects:

Inhalation: Inhalation of concentrated vapors may cause serious damage to the lining of the nose, throat, and lungs. Breathing difficulties may occur. Neither odor nor degree of irritation are adequate to indicate vapor concentration.

Ingestion: Swallowing can cause severe injury leading to death. Symptoms include sore throat, vomiting, and diarrhea. Ingestion of as little as 1.0 ml has resulted in perforation of the esophagus.

Skin Contact: Contact with concentrated solution may cause serious damage to the skin. Effects may include redness, pain, skin burns. High vapor concentrations may cause skin sensitization.

Eye Contact: Eye contact with concentrated solutions may cause severe eye damage followed by loss of sight. Exposure to vapor may cause intense watering and irritation to eyes.

Chronic Exposure: Repeated or prolonged exposures may cause darkening of the skin, erosion of exposed front teeth, and chronic inflammation of the nose, throat, and bronchial tubes.

Aggravation of Pre-existing Conditions: Persons with pre-existing skin disorders or eye problems, or impaired respiratory function may be more susceptible to the effects of the substance.

Specific Target Organ Toxicity - Single Exposure (Globally Harmonized System:) No data

available.

Specific Target Organ Toxicity - Repeated Exposure (Globally Harmonized System:) No data

available.

Numerical Measures of Toxicity: Cancer Lists: NTP Carcinogen

Ingredient	Known	Anticipated	IARC Category
Acetic Acid (64-19-7)	No	No	None

Acute Toxicity:
Oral rat LD50: 3310
mg/kg.
Dermal rabbit LD50:

1.06 g/kg.
Inhalation mouse LC50: 5620 ppm /
1 hr.
Investigated as a mutagen,
reproductive effecter.

Section 12: Ecological Information

Ecotoxicity: This material may be toxic to aquatic life.
EC50 (wheat fumigation) = 23.3 mg/m3 / 2 hr., effect: leaf injury LC50 (shrimp) = 100 - 300 mg/l / 48 hr.
LC50 (fathead minnow) = 88 mg/l / 96 hr.

Persistence and Degradability: If released to water, Acetic Acid will biodegrade readily. If released to soil, it will biodegrade readily.

Bioaccumulative Potential: Acetic Acid shows no potential for biological accumulation or food chain contamination. BCF estimated < 1.

Mobility in Soil: No data available.

Other adverse effects: US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

Section 13: Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

Section 14: Transportation Information

Proper Shipping Name:	Acetic Acid, Glacial
Chemical Name:	Glacial Acetic Acid
UN #	2789
Class	8, 3
Packing Group:	II

Note:

Land Transport ADR/RID and GGVS/GGVE (Cross Border / Domestic) Transport Hazard Class(es): 8, 3

Maritime Transport IMDG/GGVSea Transport Hazard Class(es): 8, 3
Marine Pollutant: No

Air Transport ICAO-TI and IATA-DGR
Transport Hazard Class(es): 8, 3

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code Special Precautions for User: No additional information

Section 15: Regulatory Information

Chemical Inventory Status – Part 1

Ingredient	TSCA	EC	Japan	Australia
Acetic Acid (64-19-7)	Yes	Yes	Yes	Yes

Chemical Inventory Status – Part 2

Ingredient	Korea	Canada		Phil.
		DSL	NDSL	
Acetic Acid (64-19-7)	Yes	Yes	No	Yes

Federal, State & International Regulations - Part 1

	SARA 302		SARA 313	
Ingredient	RQ	TPQ	List Chemical	Catg.
Acetic Acid (64-19-7)	No	No	No	No

Federal, State & International Regulations - Part 2

	RCRA		TSCA
Ingredient	CERCLA	261.33	8(d)
Acetic Acid (64-19-7)	5000	No	No

Chemical Weapons Convention: No		**TSCA 12(b):** No		**CDTA:** No
SARA 311/312:	**Acute:** Yes	**Chronic:** Yes	**Fire:** Yes	**Pressure**: No
Reactivity: Yes		Pure / Liquid		

Australian Hazchem Code: 2R

Poison Schedule: S5

Section 16: Other Information

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End of Safety Data Sheet