MATERIAL SAFETY DATA SHEET

WARD'S
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MSDS No. AA 05
Effective Date July 1, 1986

SECTION I NAME

Product	ACETIC ACID, GLACIAL
Chemical Synonyms	Ethanoic Acid
Formula	CH_3COOH
Unit(s) Size	500 mL, 1 Lt., 2.5 Lt.
C.A.S. No.	64-19-7

24 HOUR EMERGENCY ASSISTANCE

CHEMTREC
800-424-9300
Day 716-226-6177
Night 716-334-4222

NFPA
HAZARD RATING

Health	2
Fire	2
Reactivity	2

LEAST	SLIGHT	MODERATE	HIGH	EXTREME
0	1	2	3	4

SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

Principal Hazardous Component(s)	%	TLV Units
Acetic Acid, Glacial	99.5%	10 ppm.
		Mouse (oral) LD_{50} 5g/Kg.
DANGER! ☠ POISON ☠ CAUSES SEVERE SKIN AND EYE BURNS		
VAPOR EXTREMELY IRRITATING - COMBUSTIBLE.		

SECTION III PHYSICAL DATA

Melting Point (°F)	16.7°C	Specific Gravity (H,O = 1)	1.050 @ 20°C/4°C.
Boiling Point (°F)	244°F (118°C)	Percent Volatile by Volume (%)	100
Vapor Pressure (mm Hg)	@ 68°F 11.7mm	Evaporation Rate (But. Ac. = 1)	0.97
Vapor Density (Air = 1)	2.07		
Solubility in Water	Complete.		
Appearance and Odor	Clear colorless liquid; strongly pungent vinegar-like odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Flammable Limits in Air % by Volume @212°F	Lower	Upper
104°F (39°C)(CC).		5.4	16.0

Extinguisher Media: Carbon dioxide (CO_2); dry chemical (ABC); alcohol foam. Large spills, use water spray or alcohol foam.

SPECIAL FIREFIGHTING PROCEDURES: Water in a straight hose stream will scatter and spread fire and should not be used. Use water spray to cool container. In fire conditions, wear a NISOH-approved self-contained breathing apparatus.

Autoignition temperature: 1050°F.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Vapors are heavier than air and may travel along the ground or be moved by ventilation and ignited by heat or spark. Acid reacts with most metals to release hydrogen gas which can form explosive mixtures with air. Moderate fire hazard, when exposed to heat and flame; can react vigorously with oxidizing materials.

D.O.T.: CORROSIVE MATERIAL.

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20

#06

SECTION V HEALTH HAZARD DATA

Threshold Limited Value: 10 ppm or 25 mg/m³ (ACGIH, 1981).

Effects of Overexposure: Vapor causes irritation of eyes, nose and throat. Liquid causes severe burns to eyes and skin. May be fatal if swallowed. Swallowing results in severe damage to mucous membranes and deep tissues.

Emergency and First Aid Procedures: Flush eyes or skin with water for 15 minutes. For eyes, get immediate medical attention. If breathing is affected by vapor inhalation, remove to fresh air. Call a physician. Administer oxygen. Speed is of primar importance. If swallowed, do not induce vomiting. Drink large quantitie of water, follow with milk of magnesia, beaten eggs, or vegetable oil. Get prompt medical attention.

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SECTION VI REACTIVITY DATA

Stability		Conditions to Avoid
Unstable		Keep from freezing.
Stable	X	Excessive temperature and heat.

Incompatibility (Materials to avoid): Strong oxidants, hydroxides, oxides, xylenes, combustible materials. (Chromic acids, sodium peroxides.)

Hazardous Decomposition Products: Dangerous; when heated to decomposition, emits toxic fumes.

Hazardous Polymerization		Conditions to Avoid
May Occur	Will Not Occur	
	X	

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled: Eliminate all source of ignition. Cover contaminated surfaces with soda ash or sodium bicarbonate. Mix and add water if necessary. Scoop up slurry and wash neutral (make litmus test waste down drain with excess water, if local environmental regulations permit.

Waste Disposal Method: Neutralize with sodium bicarbonate and flush to sewer with copious amounts of water.

Discharge, treatment, or disposal may be subject to federal, state, or local laws.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type): For laboratory use work in ventilation hood or wear a NIOSH-approved respirator.

Ventilation				
Local Exhaust	Recommended.	Special	No.	
Mechanical (General)	Recommended.	Other	No.	

Protective Gloves	Rubber.	Eye Protection	Chemical safety goggles face shield.

Other Protective Equipment: Goggles and shield, lab coat, apron, vented hood, proper gloves, fire extinguisher, eye wash

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling and Storing: Keep away from heat and open flame. Keep in tightly closed container, temperature above 17°C (63°F). If frozen, thaw by moving closed contai to warm area. Loosen closure cautiously.

Keep container tightly closed when not in use

Other Precautions: Read label on container before using.
Do not get liquid or vapor in eyes, on skin , on clothing. Avoid breat vapor. Wash thoroughly after handling.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Rev. No.	Date	Approved	
No 1	1/12/87	Stephen R. Saccardi	Chemical Safety Coordinator