

9005

Vendor 0209413

CCIKm 963M
Km 4 m
Km 320m

CHEMICAL NAME: Acetic Acid, Glacial

SYNONYMS: Acetic Acid

CHEMICAL FAMILY: Aliphatic Carboxylic Acids

FORMULA: CH₃COOH

MOLECULAR WEIGHT: 60.05

TRADE NAME AND SYNONYMS: Glacial Acetic Acid

I. PHYSICAL DATA

BOILING POINT, 760 mm. Hg	244°F (118.8°C)	FREEZING POINT	61°F
SPECIFIC GRAVITY (H ₂ O = 1)	1.0510	VAPOR PRESSURE AT 20°C.	11.4 mm
VAPOR DENSITY (air = 1)	2.07	SOLUBILITY IN WATER, % by wt. at 20°C.	Soluble in all proportions
PER CENT VOLATILES BY VOLUME	Not determined	EVAPORATION RATE (Butyl Acetate = 1)	Not determine
APPEARANCE AND ODOR	Clear liquid, distinctive odor.		

II. HAZARDOUS INGREDIENTS

MATERIAL	%	TLV (Units)
Not applicable		

III. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (test method)	109°F (42.8°C)	AUTOIGNITION TEMPERATURE	800°F		
FLAMMABLE LIMITS IN AIR, % by volume		LOWER	4	UPPER	16
EXTINGUISHING MEDIA	Foam, Water spray, Dry chemical, CO ₂				
SPECIAL FIRE FIGHTING PROCEDURES	Self-contained breathing apparatus and protective clothing should be worn if fighting fires involving chemicals.				
UNUSUAL FIRE AND EXPLOSION HAZARDS	Glacial acetic acid releases flammable vapors when raised to a temperature above its flash point, 109°F. This vapor should be dispersed with water spray. Contain liquid for recommended waste treatment disposal.				

EMERGENCY PHONE NUMBERS

(414)623-2140 or 1-800-424-9300
COLUMBUS CHEMICAL INDUSTRIES, INC. / ROUTE 2, BOX 187-B / COLUMBUS, WISCONSIN 53925 / (414) 623-2140

IV. HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	10 ppm (25 mg/m ³) (ACGIH, 1977)
EFFECTS OF OVEREXPOSURE	Severe skin and eye burns may result from contact with the liquid. Vapor is irritating to nose, throat, and eyes.
EMERGENCY AND FIRST AID PROCEDURES	<p>Eye contact: irrigate immediately and thoroughly with water at least 15 minutes and get medical attention.</p> <p>Skin contact: flush immediately and thoroughly with water</p> <p>Inhalation: remove from exposure, treat symptomatically, and get medical attention.</p>

V. REACTIVITY DATA

STABILITY		CONDITIONS TO AVOID	Not applicable.
UNSTABLE	STABLE X		
INCOMPATIBILITY (materials to avoid)		Oxidizing materials can cause a vigorous reaction.	
HAZARDOUS DECOMPOSITION PRODUCTS		As with any other organic material, combustion will produce carbon dioxide and probably carbon monoxide.	
HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID	Not applicable.
May Occur	Will not Occur X		

VI. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED	Eliminate all ignition sources. Flush spill away with water spray. Small spills may be collected with absorbent material.
WASTE DISPOSAL METHOD	Incineration. Observe all Federal, state, and local laws concerning health and pollution.

VII. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (specify type)	Wear NIOSH approved self-contained air breathing apparatus with a full-face mask.		
VENTILATION	LOCAL EXHAUST	Recommended	SPECIAL None known to Eastman
	MECHANICAL (general)	Recommended	OTHER None known to Eastman
PROTECTIVE GLOVES	rubber	EYE PROTECTION	Chemical goggles and face shield
OTHER PROTECTIVE EQUIPMENT	Complete rubber protective clothing, acid suit, rubber boots etc.		

VIII. SPECIAL PRECAUTIONS

PRECAUTIONARY LABELING	<p>DANGER! CORROSIVE ACID! CAUSES SEVERE BURNS TO SKIN AND EYES. COMBUSTIBLE LIQUID.</p> <p>Do not get in eyes, on skin or on clothing. Avoid breathing vapors. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling. Keep away from heat, spark and open flame.</p> <p style="text-align: center;">FOR INDUSTRY USE ONLY</p>
OTHER HANDLING AND STORAGE CONDITIONS	Outdoors or detached storage is preferred. Keep container tightly closed. Use only Department of Transportation (DOT) approved containers. Keep away from heat and open flames. Store above 62°F (freezing point) to avoid solidification.

- Hazardous substance (EPA)

Description: CH_3COOH , acetic acid, is a colorless liquid with a pungent vinegarlike odor. Glacial acetic acid contains 99% acid. It boils at 117° to 118°C.

Code Numbers: CAS 64-19-7 RTECS AF1225000 UN 2789

DOT Designation: Corrosive material.

Synonyms: Ethanoic acid, ethylic acid, methane carboxylic acid, pyro-ligneous acid, vinegar acid.

Potential Exposure: Acetic acid is widely used as a chemical feedstock for the production of vinyl plastics, acetic anhydride, acetone, acetanilide, acetyl chloride, ethyl alcohol, ketene, methyl ethyl ketone, acetate esters, and cellulose acetates. It is also used alone in the dye, rubber, pharmaceutical (A-41), food preserving, textile, and laundry industries. It is utilized, too, in the manufacture of Paris green, white lead, tint rinse, photographic chemicals, stain removers, insecticides (A-32) and plastics.

Incompatibilities: Strong oxidizers, chromic acid, sodium peroxide, nitric acid, strong caustics.

Permissible Exposure Limits in Air: The Federal standard (TWA) is 10 ppm (25 mg/m³). The tentative STEL value is 15 ppm (37 mg/m³). The IDLH value is 1,000 ppm.

Determination in Air: Acetic acid may be collected by impinger or fritted bubbler and then determined by titration (A-1). See also reference (A-10).

Permissible Concentration in Water: No limit has been established. However, EPA (A-37) has proposed an ambient environmental goal of 345 µg/l based on health effects.

Determination in Water: Acetic acid in water may be determined by titration.

Route of Entry: Inhalation of vapor.

Harmful Effects and Symptoms: *Local* — Acetic acid vapor may produce irritation of the eyes, nose, throat, and lungs. Inhalation of concentrated vapors may cause serious damage to the lining membranes of the nose, throat, and lungs. Contact with concentrated acetic acid may cause severe damage to the skin and severe eye damage, which may result in loss of sight. Repeated or prolonged exposure to acetic acid may cause darkening, irritation of the skin, erosion of the exposed front teeth, and chronic inflammation of the nose, throat, and bronchi (A-5). See also (A-35).

Systemic — Bronchopneumonia and pulmonary edema may develop following acute overexposure. Chronic exposure may result in pharyngitis and catarrhal bronchitis. Ingestion, though not likely to occur in industry, may result in penetration of the esophagus, bloody vomiting, diarrhea, shock, hemolysis, and hemoglobinuria which is followed by anuria.

Points of Attack: Respiratory system, skin, eyes, teeth.

Medical Surveillance: Consideration should be given to the skin, eyes, teeth, and respiratory tract in placement or periodic examinations.

First Aid: If this chemical gets into the eyes, irrigate immediately. If this chemical contacts the skin, flush with water immediately. If a person breathes in large amounts of this chemical, move the exposed person to fresh air at once and perform artificial respiration. When this chemical has been swallowed, get medical attention. Give large quantities of water and do not induce vomiting.

Personal Protective Methods: When working with glacial acetic acid, personal protective equipment, protective clothing, gloves, and goggles should be worn. Eye fountains and showers should be available in areas of potential exposure. Wear appropriate clothing to prevent any possibility of skin contact with liquids of >50% content or repeated or prolonged contact with liquids of 10 to 49% content. Wear eye protection to prevent any possibility of eye contact. Employees should wash immediately with soap when skin is wet or contaminated with liquids of >50% content and promptly if liquids of 10 to 49% acetic acid are involved. Remove clothing immediately if wet or contaminated with liquids containing 50% and promptly remove if liquid contains 10 to 49% acetic acid. Provide emergency eyewash if liquids containing >5% acetic acid are involved, drench if >50% acetic acid is involved.