



Registered Off. : 101-A, Deep Enclave, Pocket 'D', Ashok Vihar, Phase-III, Delhi-110 052 (India)  
Corporate Off. : 152, Vardhman City Centre, Near Shakti Nagar Underbridge, Delhi-110052 (India)  
Works : Plot No.1022, Modern Industrial Estate, Bahadurgarh-124507, Haryana (India)  
Telephone : 0091 - 11 - 23646422 E-mail : tecpharm@gmail.com  
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## ACETIC ACID GLACIAL

### 1. Product Identification

Synonyms: Acetic acid, methane carboxylic acid; ethanoic acid

CAS No.: 64-19-7

Molecular Weight: 60.05

Chemical Formula: CH<sub>3</sub>COOH

Product Code : 30005 , 30006 , 30010 , 42001

### 2. Composition/Information on Ingredients

Ingredient	CAS No	Percent
Acetic Acid	64-19-7	99 - 100%

### 3. Hazards Identification

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.

### 4. First Aid Measures

**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

**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. 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.

### 5. Fire Fighting Measures

**Fire:** Flash point: 40C (104F) CC

Autoignition temperature: 427C (801F)

Flammable limits in air % by volume: lel: 4.0; uel: 16.0

Flammable Liquid and Vapor!

The information contained herein is in good faith but makes no representations as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. We do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.



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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.

Fire Extinguishing Media: Water, dry chemical, 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 facepiece operated in the pressure demand or other positive pressure mode. Water may be used to flush spills away from exposures and to dilute spills to non-flammable mixtures. Water diluted acid can react with metals to form hydrogen gas.

#### 6. Accidental Release Measures

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. Use water spray to dilute spill to a nonflammable mixture. Contain and recover liquid when possible. 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.

#### 7. Handling and Storage

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

#### 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.

Personal Respirators : If the exposure limit is exceeded, a full facepiece 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-facepiece 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.

#### 9. Physical and Chemical Properties

Appearance: Clear, colorless liquid.

Odor: Strong, vinegar-like.

Solubility: Infinitely soluble.

Density: 1.05

pH: 2.4 (1.0M solution)

% Volatiles by volume @ 21C (70F): 100



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Boiling Point: 118C (244F)  
Melting Point: 16.6C (63F)  
Vapor Density (Air=1): 2.1  
Vapor Pressure (mm Hg): 11 @ 20C (68F)  
Evaporation Rate (BuAc=1): 0.97

#### 10. Stability and Reactivity

Stability: Stable under ordinary conditions of use and storage. Heat and sunlight can contribute to instability. Releases heat and toxic, irritating vapors when mixed with water. Acetic acid contracts slightly upon freezing which may cause the container to burst.

Hazardous Decomposition Products: Carbon dioxide and carbon monoxide may form when heated to decomposition. May also release toxic and irritating vapors.

Hazardous Polymerization: Will not occur.

Incompatibilities: 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.

Conditions to Avoid: Heat, flame, ignition sources, freezing, incompatibles

#### 11. Toxicological Information

Oral rat LD50: 3310 mg/kg; skin rabbit LD50: 1.06 g/kg; inhalation mouse LC50: 5620ppm/1-hr; investigated as a mutagen, reproductive effector.

#### 12. Ecological Information

Environmental Fate: When released into the air, this material may be moderately degraded by reaction with photochemically produced hydroxyl radicals. When released into air, this material is expected to have a half-life between 10 and 30 days. When released into water, this material is expected to readily biodegrade.

Environmental Toxicity: This material is expected to be slightly toxic to aquatic life. The LC50/96-hour values for fish are between 10 and 100 mg/l.

#### 13. Disposal Considerations

Dispose of container and unused contents in accordance with federal, state and local requirements.

#### 14. Transport Information

Land

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Proper Shipping Name: ACETIC ACID, GLACIAL

Hazard Class: 8, 3

UN/NA: UN2789

Packing Group: II

Information reported for product/size: 450LB

International (Water, I.M.O.)

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International (Air, I.C.A.O.)

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Hazard Class: 8, 3

UN/NA: UN2789

Packing Group: II

Information reported for product/size: 450LB

#### 15. Regulatory Information

SARA 311/312: Acute: Yes Chronic: Yes Fire: Yes Pressure: No

Reactivity: Yes (Pure / Liquid)

#### 16. Other Information

Product Use:

Laboratory Reagent.