



## 1. DESCRIPTION

**Trade Name:** Acetic Acid

**Chemical Name:** Acetic acid, methane carboxylic acid; ethanoic acid

**Application:** Laboratory chemical, Laboratory and analytical use, Industrial Applications

**Supplier:** TEAM Chemicals

**Telephone:** +44 (0)207 408 7700 - +98 912 3717539

**Address:** No. 43, Souri St., 43 Ashrafi Esfahani Expressway

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

### Ingredients

| NAME        | CAS RN  | Proportion |
|-------------|---------|------------|
| Acetic Acid | 64-19-7 | 99.5       |

## 3. HAZARD IDENTIFICATION

### EMERGENCY OVERVIEW:

May cause skin and eye irritation. Harmful if inhaled. Inhalation may cause lung and tooth damage. May be fatal if swallowed.

POISON! DANGER! CORROSIVE. FLAMMABLE!

### Potential Acute Health Effects:

**Eye Contact:** Eye contact with concentrated solutions may cause severe eye damage followed by loss of sight.

**Skin Contact:** This product may cause irritation to the skin. Contact with concentrated solution may cause serious damage to the skin.

**Inhalation:** Inhalation of concentrated vapors may cause serious damage to the lining of the nose, throat, and lungs. Breathing difficulties may occur.

**Ingestion:** May be fatal if swallowed.

**Irritant** YES **Flammable** YES

**Carcinogenic** NO **Oxidant** NO

**Explosive** Above flash point, vapor-air mixtures are explosive

**Environmental Hazard** NO

**Corrosive** YES

(Risk-Phrases) - (Safety-Phrases) -





## Material Safety Datasheet

Revision No.: 6.2

Revision Date: 20.04.2021

Document Code: TE-101-207

## ACETIC ACID

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## 4. FIRST AID MEASURES

**Eye Contact:**

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Protect uninjured eye.

**Skin Contact:** After contact with skin, wash immediately with plenty of water. Immediate medical treatment required because corrosive injuries that are not treated are hard to cure.

**Inhalation:** · If fumes or combustion products are inhaled remove from contaminated area.

· Lay patient down. Keep warm and rested.

· Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.

**Ingestion:** Drink plenty of water. Obtain medical attention. If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).

## 5. FIRE FIGHTING MEASURES

**Flammable Properties** Flammable Liquid and Vapor

**Extinguishing Media** Water, dry chemical, foam or carbon dioxide. Water spray may be used to keep fire exposed containers cool.

**Fire Fighting** 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 may be used to flush spills away from exposures.

**Fire/Explosion Hazard** Above flash point, vapor-air mixtures are explosive

**Fire Incompatibility** None

**Personal Protection** As in any fire, wear self-contained breathing apparatus pressure-demand. Wear full chemical protective clothing.

## 6. ACCIDENTAL RELEASE MEASURES

**Small Spill:**

- Clean up all spills immediately. Dilute with water.
- Wipe up.
- Keep people away from and upwind of spill/leak.
- Do not touch damaged containers.
- Clean contaminated surface thoroughly.
- Covering of drains is recommended.

**Large Spill:**

Ventilate area of leak or spill. Remove all sources of ignition. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Do not use combustible materials, such as saw dust. Do not flush to sewer!

Use non-sparking tools and equipment.

## 7. HANDLING AND STORAGE

**HANDLING Precautions:** Handle and open container with care. Do not get this material in your eyes, on your skin, or on your clothing. Wear personal protective equipment. Protect against physical damage

**Storage Precautions:**

Use care in handling/storage.

Keep containers tightly closed in a dry, cool and well-ventilated place. Store above 17C (63 F). 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.



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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### EXPOSURE Limits

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

### PERSONAL PROTECTION

Use of protective coveralls and long sleeves is recommended.

Use of impervious boots are recommended.

Protective gloves.

If ventilation is not sufficient to effectively prevent buildup of aerosols or mists, appropriate NIOSH/MSHA respiratory protection must be provided.

### ENGINEERING CONTROLS

Provide local and general exhaust ventilation to effectively remove and prevent buildup of any vapors or mists generated from the handling of this product.

When using do not smoke.

## 9. PHYSICAL & CHEMICAL PROPERTIES

**Physical state and appearance:** Clear Liquid

**Color:** colorless

**Odor:** Strong vinegar odor

**pH (1 M solution):** 2.4

**Melting/Freezing Point:** 16.6 °C

**Boiling Point:** 118 °C

**Specific Gravity:** 1.05

**Vapor Pressure (mm Hg):** 11 @ 20 °C

**Vapor Density (Air=1):** 2.1

**Solubility:** Soluble in water

## 10. STABILITY & REACTIVITY

**Chemical Stability:** Stable at normal conditions

**Conditions to Avoid:** Direct heat, flame, ignition sources, freezing,

**Materials to Avoid:** Acetic Acid is incompatible with chromic acid, nitric acid, ethylene glycol, perchloric acid, phosphorous tri-chloride, oxidizers, sodium peroxide, strong caustics, most metals (except aluminum), carbonates, hydroxides, oxides, and phosphates.

**Special Remarks on Reactivity:** Carbon dioxide and carbon monoxide may form when heated to decomposition. May also release toxic and irritating vapors.

**Special Remarks on Corrosivity:** Acetic acid contracts slightly upon freezing which may cause the container to burst.

## 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

According to the results of tests of biodegradability, it is considered as being readily biodegradable.

Shall not be classified as hazardous to the aquatic environment.

| Endpoint | value       | species               | Source | Exposure Time |
|----------|-------------|-----------------------|--------|---------------|
| LC50     | >300,8 mg/l | fish                  | ECHA   | 96 hr         |
| EC50     | >300,8 mg/l | Aquatic invertebrates | ECHA   | 48 hr         |
| ErC50    | >300,8 mg/l | algae                 | ECHA   | 72 hr         |

### Biodegradation

The substance is readily biodegradable.

## 13. DISPOSAL CONSIDERATION

### DISPOSAL METHODS:

Dispose of waste material according to Local, State, and Provincial Environmental Regulations. Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to an approved waste facility.

## 14. TRANSPORT INFORMATION

### UN number or ID number

ADR/RID/ADN UN = 2789

IMDG-Code UN = 2789

ICAO-TI UN = 2789

### 14.2 UN proper shipping name

ADR/RID/ADN = ACETIC ACID, GLACIAL

IMDG-Code A = CETIC ACID, GLACIAL

ICAO-TI = Acetic acid, glacial

### 14.3 Transport hazard class(es)

ADR/RID/ADN = 8 (3)

IMDG-Code = 8 (3)

ICAO-TI = 8 (3)

### 14.4 Packing group

ADR/RID/ADN = II

IMDG-Code = II

ICAO-TI = II

### 14.5 Environmental hazards

non-environmentally hazardous acc. to the dangerous goods regulations

### 14.6 Special precautions for user

Provisions for dangerous goods (ADR) should be complied within the premises.

## 15. REGULATORY INFORMATION

Manufacture, Storage and Import of Hazardous Chemicals Rule, 1989.

### **Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)**

not listed

### **Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)**

not listed

### **Water Framework Directive (WFD)**

not listed

### **Regulation on the marketing and use of explosives precursors**

not listed

### **Regulation on drug precursors**

not listed

### **Regulation on substances that deplete the ozone layer (ODS)**

not listed

### **Regulation concerning the export and import of hazardous chemicals (PIC)**

not listed

### **Regulation on persistent organic pollutants (POP)**

## 16. ADDITIONAL INFORMATION

### **Reason(s) for Issue:**

3 Yearly Revised Primary MSDS

Update in Toxicological Information

Update in Ecological Information

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.

Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.

This MSDS summaries to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. TEAM cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.