

**ACETIC ACID****0363**

October 1997

**CAS No: 64-19-7**  
**RTECS No: AF1225000**  
**UN No: 2789 (>80%)**  
**EC No: 607-002-00-6**

Glacial acetic acid  
 Ethanoic acid  
 Ethylic acid  
 Methanecarboxylic acid  
 $C_2H_4O_2 / CH_3COOH$   
 Molecular mass: 60.1

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
<b>FIRE</b>	Flammable.	NO open flames, NO sparks, and NO smoking.	Powder, alcohol-resistant foam, water spray, carbon dioxide.
<b>EXPLOSION</b>	Above 39/C explosive vapour/air mixtures may be formed.	Above 39/C use a closed system, ventilation, and explosion-proof electrical equipment.	In case of fire: keep drums, etc., cool by spraying with water.
<b>EXPOSURE</b>		<b>AVOID ALL CONTACT!</b>	
<b>Inhalation</b>	Sore throat. Cough. Burning sensation. Headache. Dizziness. Shortness of breath. Laboured breathing. Symptoms may be delayed (see Notes).	Ventilation, local exhaust, or breathing protection.	Fresh air, rest. Half-upright position. Refer for medical attention.
<b>Skin</b>	Pain. Redness. Blisters. Skin burns.	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse and then wash skin with water and soap. Rinse skin with plenty of water or shower. Refer for medical attention.
<b>Eyes</b>	Redness. Pain. Severe deep burns. Loss of vision.	Face shield or eye protection in combination with breathing protection.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
<b>Ingestion</b>	Abdominal pain. Burning sensation. Diarrhoea. Shock or collapse. Sore throat. Vomiting.	Do not eat, drink, or smoke during work.	Rinse mouth. Do NOT induce vomiting. Give plenty of water to drink. Refer for medical attention.

**SPILLAGE DISPOSAL**

Collect leaking liquid in sealable containers. Cautiously neutralize spilled liquid with sodium carbonate only under the responsibility of an expert. Wash away remainder with plenty of water. Personal protection: chemical protection suit including self-contained breathing apparatus.

**PACKAGING & LABELLING**

C Symbol  
 R: 10-35  
 S: (1/2-)23-26-45  
 Note: B  
 UN Hazard Class: 8  
 UN Subsidiary Risks: 3  
 UN Pack Group: II

Do not transport with food and feedstuffs.

**EMERGENCY RESPONSE**

Transport Emergency Card: TEC (R)-80GCF1-II  
 NFPA Code: H2; F2; R0

**SAFE STORAGE**

Fireproof. Separated from food and feedstuffs. See Chemical Dangers. Keep in a well-ventilated room.

**IPCS**

International  
 Programme on  
 Chemical Safety



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**SEE IMPORTANT INFORMATION ON THE BACK.**

### IMPORTANT DATA

**Physical State; Appearance**

COLOURLESS LIQUID, WITH PUNGENT ODOUR.

**Chemical dangers**

The substance is a weak acid. Reacts violently with oxidants and bases. Attacks many metals forming flammable/explosive gas (hydrogen - see ICSC 0001). Attacks some forms of plastic, rubber and coatings.

**Occupational exposure limits**

TLV: 10 ppm as TWA, 15 ppm as STEL; (ACGIH 2004).  
MAK: IIb (not established but data is available); (DFG 2004).

**Routes of exposure**

The substance can be absorbed into the body by inhalation of its vapour and by ingestion.

**Inhalation risk**

A harmful contamination of the air can be reached rather quickly on evaporation of this substance at 20/C.

**Effects of short-term exposure**

The substance and the vapour is corrosive to the eyes, the skin and the respiratory tract. Corrosive on ingestion. Inhalation of the vapor may cause lung oedema (see Notes). The effects may be delayed. Medical observation is indicated.

**Effects of long-term or repeated exposure**

Repeated or prolonged contact with skin may cause dermatitis. The substance may have effects on the gastrointestinal tract, resulting in digestive disorders including pyrosis and constipation.

### PHYSICAL PROPERTIES

Boiling point: 118/C  
Melting point: 16.7/C  
Relative density (water = 1): 1.05  
Solubility in water: miscible  
Vapour pressure, kPa at 20/C: 1.5  
Relative vapour density (air = 1): 2.1

Relative density of the vapour/air-mixture at 20/C (air = 1): 1.02  
Flash point: 39/C c.c.  
Auto-ignition temperature: 427/C  
Explosive limits, vol% in air: 5.4-16  
Octanol/water partition coefficient as log Pow: -0.31

### ENVIRONMENTAL DATA

The substance is harmful to aquatic organisms.

### NOTES

The symptoms of lung oedema often do not become manifest until a few hours have passed and they are aggravated by physical effort. Rest and medical observation is therefore essential.

Immediate administration of an appropriate inhalation therapy by a doctor or a person authorized by him/her, should be considered.

Other UN numbers: UN 2790 acetic acid solution (10-80% acetic acid); UN hazard class 8.

Card has been partly updated in October 2005. See sections Occupational Exposure Limits, Emergency Response.

### ADDITIONAL INFORMATION

**LEGAL NOTICE**

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