

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
FIRE	Flammable.	NO open flames, NO sparks, and NO smoking.	Powder, alcohol-resistant foam, water spray, carbon dioxide,
EXPLOSION	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.

EXPOSURE		AVOID ALL CONTACT!	
Inhalation	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.
Skin	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.
Eyes	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.
Ingestion	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	PACKAGING & LABELLING
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 (extra personal protection: chemical protection suit including self-contained breathing apparatus).	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	STORAGE
Transport Emergency Card: TEC (R)-614 NFPA Code: H2; F2; R0;	Fireproof. Separated from food and feedstuffs. See Chemical Dangers. Keep in a well-ventilated room.

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 form of plastics, rubber and coatings.

Occupational Exposure Limits

TLV (as TWA): 10 ppm; 25 mg/m³,
as STEL: 15 ppm; 37 mg/m³ (ACGIH 1997).

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 spray, 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.

ADDITIONAL INFORMATION

LEGAL NOTICE

Neither the EC nor the IPCS nor any person acting on behalf of the EC or the IPCS is responsible for the use which might be made of this information