

CITRIC ACID**0855**

March 1998

CAS No: 77-92-9

RTECS No: GE7350000

UN No:

EC No:

2-Hydroxy-1,2,3-propanetricarboxylic acid

beta-Hydroxytricarballic acid

Anhydrous citric acid

C₆H₈O₇ / CH₂COOH-C(OH)COOH-CH₂COOH

Molecular mass: 192.1

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
FIRE	Combustible.	NO open flames.	Powder, water spray, foam, carbon dioxide.
EXPLOSION	Finely dispersed particles form explosive mixtures in air.	Prevent deposition of dust; closed system, dust explosion-proof electrical equipment and lighting.	

EXPOSURE		PREVENT DISPERSION OF DUST!	
Inhalation	Cough. Shortness of breath. Sore throat.	Ventilation (not if powder).	Fresh air, rest. Refer for medical attention.
Skin	Redness.	Protective gloves.	Rinse skin with plenty of water or shower. Refer for medical attention.
Eyes	Redness. Pain.	Safety goggles.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
Ingestion	Abdominal pain. Sore throat.	Do not eat, drink, or smoke during work.	Rinse mouth. Refer for medical attention.

SPILLAGE DISPOSAL

Sweep spilled substance into containers; if appropriate, moisten first to prevent dusting. Wash away remainder with plenty of water (extra personal protection: P2 filter respirator for harmful particles).

PACKAGING & LABELLING

Symbol

R:

S:

EMERGENCY RESPONSE**STORAGE**

Separated from strong oxidants, strong bases, metal nitrates and metals.
Dry.

IPCSInternational
Programme on
Chemical Safety

Prepared in the context of cooperation between the International Programme on Chemical Safety and the European Commission
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SEE IMPORTANT INFORMATION ON THE BACK.

IMPORTANT DATA

Physical State; Appearance

COLOURLESS CRYSTALS

Physical Dangers

Dust explosion possible if in powder or granular form, mixed with air.

Chemical Dangers

The substance decomposes on heating above 175°C. The solution in water is a medium strong acid. Reacts with oxidants and bases. Attacks metal.

Occupational Exposure Limits

TLV not established. MAK not established.

Routes of Exposure

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

Inhalation Risk

Evaporation at 20°C is negligible; a nuisance-causing concentration of airborne particles can, however, be reached quickly when dispersed.

Effects of Short-term Exposure

The substance irritates the eyes, the skin and the respiratory tract.

Effects of Long-term or Repeated Exposure

The substance may have effects on the teeth, resulting in erosion.

PHYSICAL PROPERTIES

Decomposes below boiling point at 175°C

Melting point: 153°C

Solubility in water, g/100 ml at 20°C: 59

Flash point: 100°C

Explosive limits, vol% in air: 0.28-2.29

Octanol/water partition coefficient as log Pow: -1.7

ENVIRONMENTAL DATA

NOTES

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