

MATERIAL SAFETY DATA SHEET

Citric acid, anhydrous

MSDS Name:	Citric acid, anhydrous
Synonyms:	2-Hydroxy-1,2,3-propanetricarboxylic acid
Company Identification: (INDIA)	Veritas House, 70 Mint Road, Fort, Mumbai - 400 001. INDIA
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Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	%	EINECS#
77-92-9	Citric acid, anhydrous	99%	201-069-1

Hazard Symbols:	XI
	
Risk Phrases:	36/37/38

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Irritating to eyes, respiratory system and skin.

Potential Health Effects

Eye:	Causes severe eye irritation.
Skin:	Causes moderate skin irritation.
Ingestion:	May cause gastrointestinal irritation with nausea, vomiting and diarrhea.
Inhalation:	Causes respiratory tract irritation.
Chronic:	

Section 4 - First Aid Measures

Eyes:	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
Skin:	Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
Ingestion:	Get medical aid. Wash mouth out with water.
Inhalation:	Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
Notes to Physician:	

Section 5 - Fire Fighting Measures

General Information:	As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. This material in sufficient quantity and reduced particle size is capable of creating a dust explosion.
Extinguishing Media:	Use water spray, dry chemical, carbon dioxide, or chemical foam.

Section 6 - Accidental Release Measures

General Information:	Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks:	Vacuum or sweep up material and place into a suitable disposal container.

Section 7 - Handling and Storage

Handling:	Avoid breathing dust, vapor, mist, or gas. Avoid contact with skin and eyes.
Storage:	Store in a cool, dry place. Store in a tightly closed container.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:	Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.
Exposure Limits	

Personal Protective Equipment

Eyes:	Wear chemical splash goggles.
Skin:	Wear appropriate protective gloves to prevent skin exposure.
Clothing:	Wear appropriate protective clothing to prevent skin exposure.
Respirators:	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State:	Crystals
Color:	white
Odor:	odorless
pH:	Not available
Vapor Pressure:	Not available
Viscosity:	Not available
Boiling Point:	Not available
Freezing/Melting Point:	153 - 154.5 deg C
Autoignition Temperature:	1000 deg C (1,832.00 deg F)
Flash Point:	100 deg C (212.00 deg F)
Explosion Limits: Lower:	Not available
Explosion Limits: Upper:	Not available
Decomposition Temperature:	Not available
Solubility in water:	750 g/L (20°C)
Specific Gravity/Density:	
Molecular Formula:	C6H8O7

Molecular Weight:	192.13
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Section 10 - Stability and Reactivity

Chemical Stability:	Stable under normal temperatures and pressures.
Conditions to Avoid:	Incompatible materials, exposure to moist air or water.
Incompatibilities with Other Materials	Oxidizing agents, reducing agents, bases, metal nitrates.
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide.
Hazardous Polymerization	Will not occur.

Section 11 - Toxicological Information

RTECS#:	CAS# 77-92-9: GE7350000
LD50/LC50:	RTECS: CAS# 77-92-9: Draize test, rabbit, eye: 750 ug/24H Severe; Draize test, rabbit, skin: 500 mg/24H Mild; Oral, mouse: LD50 = 5040 mg/kg; Oral, rat: LD50 = 3 gm/kg; Other:
Carcinogenicity:	Citric acid, anhydrous - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other:	See actual entry in RTECS for complete information. The toxicological properties have not been fully investigated.

Section 12 - Ecological Information

Ecotoxicity:	Fish: Leuciscus idus: LC50: 440-760 mg/L; 96h; Daphnia: Daphnia: EC50: 120 mg/L; 72h; .
Other:	Biodegradable. Log Pow: -1.72

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

	IATA	IMO	RID/ADR
Shipping Name:	Not regulated.	Not regulated.	Not regulated.
Hazard Class:			
UN Number:			
Packing Group:			

Section 15 - Regulatory Information

European/International Regulations
European Labeling in Accordance with EC Directives
Hazard Symbols: XI
Risk Phrases:
➤ R 36/37/38 Irritating to eyes, respiratory system and skin.
Safety Phrases:
➤ S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
➤ S 37/39 Wear suitable gloves and eye/face protection.
WGK (Water Danger/Protection)
➤ CAS# 77-92-9: 0
Canada
➤ CAS# 77-92-9 is listed on Canada's DSL List

US Federal

- TSCA
- CAS# 77-92-9 is listed on the TSCA Inventory

Section 16 - Other Information

MSDS Creation Date: July 22, 2015

Revision #0 Date

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