



CITROSOL rH

MATERIAL SAFETY DATA SHEET

1 - IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY

Substance

Chemical Name

Commercial Names and Citrosol rH

Synonyms

Chemical Abstract Nomenclature

Uses Antioxidant

Company Tel. +39-0321-790-300 (please see bottom of the page)

Emergency service Niguarda Hospital tel. +39-02-6610-1029

2 - COMPOSITION / INFORMATION ON INGREDIENTS

- **General description of the components, relative concentrations and risks**

Chemical name	N° CAS	N°EINECS	Conc/Range %	Classification	
				Symbols	R phrases
Citric acid	5949-29-1	201-069-1	23	Xi	R36 (>20%)
Potassium metabisulphite	16731-55-8	240-795-3	50	Xi	R31-37(>20%)-41(>5%)
Ascorbic acid	58-81-7	200-066-2	23		
Metatartaric acid			4		

See Section 16 for the complete text of R phrases.

3 – HAZARDS IDENTIFICATION

Dangerous classified substance according to official current regulations.

Health risks	Risk of serious eyes lesions. Irritant to the respiratory system. In case of contact with acids, it releases sulphur dioxide (SO ₂), a toxic gas
Environmental risks	If discharged into surface water, the product can cause oxygen reduction with negative consequences on living organisms
Physical and chemical hazards	Uninflammable product. Low risk.
Fire and explosion	In case of a nearby fire, it can release sulphur dioxide (SO ₂), a toxic gas

4 – FIRST AID MEASURES

Inhalation	Move to open air. In case of difficult breathing give oxygen or give artificial respiration
Skin contact	Take off any contaminated clothes. Wash abundantly with water
Eyes contact	Wash immediately with running water with open eyes for at least 15 minutes. Seek medical advice
Ingestion	Let ingest water. Seek medical advice

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5 – FIRE-FIGHTING MEASURES

Advised extinguishing agents	Uninflammable. Use water in case of nearby fire
Extinguishing agents to be avoided	None
Dangers caused by combustion matters	Sulphur dioxide
Protection measures in case of intervention	Breathing apparatus
Additional information	The water used for fire extinction, contaminated by the product, must be disposed of according to current local regulations

6 – ACCIDENTAL RELEASES MEASURES

Collection and disposal methods	Collect mechanically in suitable containers – Wash out the residual matters with water
Personal-related safety precautions	Provide a suitable ventilation. Wear suitable protection clothes
Environmental protection	Prevent the introduction of the product within the sewage system or canals

7 – HANDLING AND STORAGE

Handling	Keep containers closed in order to prevent product hardening. Prevent dust formation
Storage	Store in a cool, dry and well-ventilated place. Do not store near oxidants, acids or products that can release acids

8 – PERSONAL PROTECTION / EXPOSURE CONTROL

Respiratory protection	Anti-dust mask
Skin protection	
Hand protection	Safety gloves
Eyes protection	Safety goggles with side screen. Do not wear contact lenses
Exposure limits	TLV – TWA: unknown (5 mg/m ³ with reference to SO ₂) (ACGIH 1993-94)

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9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance	physical state	Powder
	colour	White-beige
	smell	Slight of sulphur dioxide
Melting point		
Boiling point		
Density		
Solubility in water		Good in cool water
Flash point		
Inflammability limits (vol % in air)		Uninflammable
Autoignition temperature		
pH		
Coefficient of division n-octanol/water		

10 – STABILITY AND REACTIVITY

Conditions to be avoided	Decomposition starting at about 150°C with SO ₂ release
Products to be avoided	Acids - Oxidants - NaNO ₂ - NaNO ₃
Hazardous decomposition products	Sulphur dioxide

11 – TOXICOLOGICAL INFORMATION

Penetration ways	Inhalation yes Ingestion unlikely event Contact yes
Acute toxicity	LD50 (oral, rat): 2300 mg/kg (ref. to potassium metabisulphite)
Inhalation consequences	Irritation of main respiratory tracts
Ingestion consequences	Unlikely event
Skin local effects	Irritation – Sensitisation on persons allergic to the product
Eyes local effects	Irritation – Risk of serious injuries to eyes
Additional information	Unknown

12 – ECOLOGICAL INFORMATION

If discharged into surface water the product can cause considerable oxygen decrease with negative consequences on living organisms.

Ichthyotoxicity (acute toxicity) - *Brachydamio rerio* LC50: 460-1000 mg/L/96h
Biotoxicity - *Pseudomonas putida* EC/LD50 (17h): 65 mg/L
COD: 140 mg/g

13 – DISPOSAL CONSIDERATIONS

Product	Inorganic product not to be disposed of through biological treatment systems. Product residuals to be disposed of according to official current regulations and by an authorized contracting firm
Contaminated packages	Empty the package, unfold it completely and dispose of it according to the material

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14 – TRANSPORT INFORMATION

Product non subject to ADR/RID and IMO regulations, related to road, sea and airway transport of dangerous goods.

15 – REGULATORY INFORMATION

EC labelling	[]	Required by the law
	[X]	Temporary
	[]	Not required
# Classification	Xi	R31, R37, R41, S2, S8, S26

16 – OTHER INFORMATION

Hazard symbol	Xi	Irritant
# Risk phrases	R31	In contact with acids it releases toxic gas
	R37	Irritant to the respiratory system
	R41	Risk of serious damage to eyes
Safety phrases	S2	Keep out of the reach of children
	S8	Keep container dry
	S26	In case of contact with eyes rinse immediately with plenty of water and seek medical advice

Risks related to sulphur dioxide: Toxic gas by inhalation, heavier than air.
It can accumulate itself in closed areas and particularly at soil level or below it. In high concentrations it is corrosive for eyes, respiratory system and skin.

This material safety data sheet has been issued in accordance with 2001/58/CE.

Before starting the use of this product for any new process or experiment, it must be carried out a deep study on the safety and the compatibility of the product itself with materials it could come in contact with.

The information contained in this safety data sheet is given to protect health and safety at work. No responsibility is taken for possible damages arising from uses of this information for different purposes from the ones here indicated.

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