



Qualikems Lifesciences Pvt. Ltd

(Formerly known as Qualikems fine chem Pvt Ltd)

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Material Safety Data Sheet

Cupferron

Section 1 - Chemical Product and Company Identification

MSDS Name: Cupferron

Synonyms: N-Hydroxy-N-Nitrosobenzenamine Ammonium Salt

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
135-20-6	CUPFERRON	100	205-183-2

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: light yellow or cream solid.

Warning! Harmful if swallowed. Carcinogen. Causes eye and skin irritation. Methemoglobin former - can cause cyanosis. Causes digestive and respiratory tract irritation.

Target Organs: Blood.

Potential Health Effects

Eye: Causes eye irritation.

Skin: Causes skin irritation.

Ingestion: Harmful if swallowed. Causes gastrointestinal irritation with nausea, vomiting and diarrhea. Methemoglobinemia is characterized by dizziness, drowsiness, headache, shortness of breath, cyanosis (bluish discoloration of skin due to deficient oxygenation of the blood), rapid heart rate and chocolate-brown colored blood. Overexposure may cause methemoglobinemia.

Inhalation: Causes respiratory tract irritation.

Chronic: Prolonged or repeated skin contact may cause dermatitis. May cause cancer in humans. May cause cancer according to animal studies.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin: Get medical aid. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion: Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.

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: Treat symptomatically and supportively.

Antidote: Methylene blue, alone or in combination with oxygen is indicated as a treatment in nitrite induced methemoglobinemia.

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. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Wear appropriate protective clothing to prevent contact with skin and eyes. Wear a self-contained breathing apparatus (SCBA) to prevent contact with thermal decomposition products. This material in sufficient quantity and reduced particle size is capable of creating a dust explosion.

Extinguishing Media: In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam. Use agent most appropriate to extinguish fire.

Flash Point: Not applicable.

Autoignition Temperature: Not applicable.

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 2; Flammability: 0; Instability: 0

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation.

Storage: Keep away from heat and flame. Store in a tightly closed container. Keep

from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep refrigerated. (Store below 4°C/39°F.)

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
CUPFERRON	none listed	none listed	none listed

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Section 9 - Physical and Chemical Properties

Physical State: Solid

Appearance: light yellow or cream

Odor: none reported

pH: Not available.

Vapor Pressure: Negligible.

Vapor Density: Not applicable.

Evaporation Rate: Negligible.

Viscosity: Not available.

Boiling Point: Not applicable.

Freezing/Melting Point: 163 deg C

Decomposition Temperature: 159 deg C

Solubility: Soluble in water.

Specific Gravity/Density: Not available.

Molecular Formula: C₆H₉N₃O₂

Molecular Weight: 155.15

Section 10 - Stability and Reactivity

Chemical Stability: Materials containing similar functional groups can decompose at elevated temperatures.

Conditions to Avoid: High temperatures, incompatible materials, moisture.

Incompatibilities with Other Materials: Strong oxidizing agents - strong acids - strong bases - moisture.

Hazardous Decomposition Products: Nitrogen oxides, carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:

CAS# 135-20-6: NC4725000

LD50/LC50:

CAS# 135-20-6:

Dermal, guinea pig: LD50 = >5 gm/kg;

Draize test, rabbit, eye: 20 mg/24H Moderate;

Oral, rat: LD50 = 199 mg/kg;

Carcinogenicity:

CAS# 135-20-6:

- **ACGIH:** Not listed.
- **California:** carcinogen, initial date 1/1/88
- **NTP:** Suspect carcinogen
- **IARC:** Not listed.

Epidemiology: No information available.

Teratogenicity: No information available.

Reproductive Effects: No information available.

Mutagenicity: No information available.

Neurotoxicity: No information available.

Other Studies:

Section 12 - Ecological Information

No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14 - Transport Information

	IATA	
Shipping Name:	CORROSIVE SOLIDS, TOXIC, N.O.S.	
Hazard Class:	8	
UN Number:	UN2923	
Packing Group:	III	

Section 15 - Regulatory Information

Hazard Symbols:

XN

Risk Phrases:

R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R 40 Limited evidence of a carcinogenic effect.

Safety Phrases:

S 37/39 Wear suitable gloves and eye/face protection.

Section 16 - Additional Information

MSDS Creation Date: 2/17/1998

Revision #3 Date: 10/03/2005

Revision #4 Date: 09/03/2010

Revision #5 Date: 08/03/2015

Revision #6 Date: 07/03/2020

Revision #7 Date: 06/03/2025

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