

MAR 29 1993



6901 Washington NE
Albuquerque, New Mexico 87109

RECEIVED DEC 23 1991

Material Safety Data Sheet
Material/Trade Name: Brass Bronze & Copper Oxidizer (Light Brown)
Stock Number: 331-022,043,044

EMERGENCY NUMBER ONLY
PLEASE NOTE: THIS 24 HOUR NUMBER IS LOCATED IN A HOSPITAL EMERGENCY ROOM. ONLY MEDICAL INFORMATION IS AVAILABLE. REFERENCE IS MADE BY RIO GRANDE STOCK NUMBER.
EMERGENCY TELEPHONE NO: (505) 823-8080

SECTION I IDENTIFICATION

Material/Trade Name: Brass, Bronze, Copper Oxidizer (Light Brown)
Stock Number: 331-022, 043, 044
Synonyms: Oxidizer

RGA Non-emergency Phone: (505) 345-8511
DATE PREPARED: 11-27-91
(SUPERCEDES RGA VERSION DATED 11-1-90)
(Based on Mfr's MSDS Dated: 9-12-91)

SECTION II INGREDIENTS/IDENTITY INFORMATION

Component (Synonym)	%	CAS No.	TLV	PEL	Other
Phosphoric Acid	2-5	7664-38-2	1 mg/m ³	1 mg/m ³	3 mg/m ³ (STEL)
Copper Sulfate	1-3	7758-99-8	0.2 mg/m ³ **	0.1 mg/m ³ **	0.1 mg/m ³ **
Selenious Acid	2-5	7783-00-8	0.2 mg/m ³ ***	0.2 mg/m ³ ***	0.2 mg/m ³ *** (NIOSH)
Ammonium Molybdate	1-3	13106-76-8	5 mg/m ³ ***	5 mg/m ³ ***	None known

* As copper fumes
** Selenium compounds as Se
*** Molybdenum soluble compounds as Mo

SECTION III PHYSICAL PROPERTIES

Boiling Point: Not available Specific Gravity: 1.02 - 1.03 @ 70°F
Vapor Pressure (mm Hg): Same as water Melting Point: Not available
Vapor Density (Air = 1): Same as Water Evaporation Rate: Same as water
Solubility in Water: 100% Volatility: Greater than 1%
pH: 1.5 - 2
Appearance and Odor: Clear-blue, non-viscous liquid

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point: Not available Flammable Limits LEL:Unknown, UEL:Unknown
Auto Ignition Temperature: Not available
Extinguishing Media: Use extinguishing media appropriate for surrounding material.
Special Fire-Fighting Procedures: Fire fighters should wear full turnout gear and SCBA.
Unusual Fire and Explosion Hazards: None known

SECTION V REACTIVITY DATA

Stable? Yes Conditions to Avoid: None known
Incompatibility (Materials to Avoid): Strong acids, Alkalies, Strong oxidizers
Hazardous Decomposition or Byproducts: Copper, selenium, and molybdenum fumes
Hazardous polymerization may occur? No Conditions to Avoid: None known



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SECTION VI HEALTH HAZARD DATA

Primary Routes of Exposure: Inhalation, ingestion, skin and eye contact

Acute Signs and Symptoms of Overexposure: Mist inhalation may cause coughing, sneezing, salivation, and difficult breathing. This product can cause burns to the skin, eyes, respiratory tract, and digestive tract upon direct contact. Skin burns may not develop immediately but will develop over a short time. Some selenium compounds have been shown to cause contact dermatitis. The ammonium molybdate and copper sulfate components of this product are poisons by ingestion.

Chronic Signs and Symptoms of Overexposure: The selenium component has been shown to cause pallor, nervousness, depression, stomach disturbance (coordination, increased reflexes, twitching, and muscles spasms). In addition the copper component has shown to be an experimental tumorigen, teratogen and evoked other reproductive effects. The copper component has been shown to cause gastritis, diarrhea, nausea, vomiting, kidney and blood changes when ingested. Ingestion is not considered an occupational route of exposure.

Carcinogenicity? No **Listed in:** Not listed

Medical Conditions Generally Aggravated by Exposure: Wilson's disease - a genetic disorder in which the body abnormally absorbs and retains copper. Can be fatal if untreated.

First-Aid Procedures

Eye: Hold eyelids open and flush eyes for 15 minutes with large quantities of water. Seek medical attention immediately.

Skin: Wash area with soap and water. Remove contaminated clothing. Seek medical attention.

Inhalation: Remove victim to fresh air. Restore breathing if necessary. Seek medical attention immediately.

Ingestion: Seek medical attention immediately. Do not induce vomiting.

SECTION VII PRECAUTIONS FOR SAFE HANDLING AND USE

Actions to Take for Spills: Wearing appropriate personal protective clothing, contain spill. Cover with an absorbent material, scoop up and store in plastic drums for disposal. Do not flush into sewers. Rinse residual with water and wipe up.

Waste Disposal: Consult with local, state, and federal authorities for proper disposal of selenium and copper containing waste. See EPA 40 CFR 261.

Precautions to be Taken in Handling and Storage: Do not store with strong acids, alkalies or oxidizers.

Other Precautions: Wear protective clothing and splash goggles as directed.

SECTION VIII EMPLOYEE PROTECTION MEASURES

Ventilation: Local ventilation is preferred to meet TLV requirements. General ventilation is acceptable, if exposure is maintained below TLV.

Respiratory Protection: If airborne concentrations exceed the TLV or are unknown use NIOSH/MSHA approved respiratory protection for acids, mist, dust, fumes and organic vapors. Follow OSHA respiratory protection guidelines (29 CFR 1910.134).

Eye Protection: Safety goggles **Protective Gloves:** Acid resistant gloves

Other Protective Equipment: Acid resistant apron and boots

Work/Hygiene Practices: Eyewash station and safety shower should be available in areas of use. Wash thoroughly after handling product.

SECTION IX OTHER REGULATORY INFORMATION

The following chemicals are listed in Section 313 of Title III of the Superfund Amendments and Reauthorization Act.

Phosphoric Acid
Selenius Acid

RQ = 10 lb.

TPQ = 1,000lb./10,000lb.

The information herein is given in good faith, but no warranty, express or implied is made.