Section 1 - Material Identification

R.W.M.A. Class II Chrome Copper, Alloy C18200

Section 2 - Company Identification

Customer Service:

NSRW, Inc.
701 Thames Court
Pelham, AL 35124
Phone: 205-663-1500
Fax: 205-663- 3221

Website: http://www.nsrw.com

Email: info@nsrw.com

Section 3 - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity: Common Name(S):	1985 OSHA PEL	1985-1986 AGGIH TLV		Other Limits Recommended	% (Optional)
	(mg/m^3)	(mg/m^3)			
		TWA	STEL		
Copper					99.14
Fume	0.1	0.2	N/A	N/A	
Dust & Mists	1	1	2	N/A	
Chromium - Metal & Insoluble Salts	1	0.5	N/A	N/A	1.85
Silicon (Total Dust <1% Quartz)	N/A	10	20	5	(Respirable Dust) 0.01

Section 4 - Physical/Chemical Characteristics

Boiling Pint - Copper	2300 C	Specific Gravity (H_2O-1) - Copper	8.92
Vapor Pressure (mm Hg) - @ 20 C	N/A	Melting Point - Copper	1082 C
Vapor Density (AIR - 1)	N/A	Evaporation Rate - (Butyl Acetate - 1	N/A
Solubility in Water - Insoluble		Appearance and Order - Yellowish-red metal; no odor	

Section 5 - Fire and Explosion Hazard Date

Flash Point: (Method Used) - Not Applicable

Flammable Limits: Not Applicable

LEL: Not Applicable

UEL: Not Applicable

Extinguishing Media: Use no water; use powdered extinguishing agents: graphite, dolomite, sodium chloride.

Special Fire Fighting Procedures: Power extinguisher agents should be applied gently on metal fires to avoid breaking any crust which may be formed over metal.
Unusual Fire and Explosion Hazards - Dangerous in dispersed form when exposed to flame or spark. Powdered metal might ignite spontaneously.

Carcinogenicity: NIP? - Yes, Chromium
IARC Monographs? - Yes, Chromium
OSHA Regulated? - No

Medial Conditions Generally Aggravated by Exposure: Persons with Wilson's disease, G6PD deficiency, chronic respiratory problems, chronic skin problems, sensitized individuals.

Emergency First Aid Procedures:

Inhalation: Remove to fresh air. Establish respiration. Seek medical attention.
Ingestion: Dilute with water, induce vomiting, if conscious. Seek medial attention.
Eye: From fumes and mists, flush with large amounts of water. Seek medical attention. For dust particles in eyes, have trained medical personnel remove the foreign body.
Skin: Wash with soap and water. See medical attention for sensitization.

Section 6 - Reactivity Data

Stability: Stable

Conditions of Avoid: In moist air, copper gradually coated with green basic carbonate.

Incompatibility (Material to avoid): Copper reacts with sodium azide. Avoid contact of powdered metal with oxidizers.

Hazard Decomposition or Byproducts: No Data

Hazardous Polymerization: Will Not Occur

Section 7 - Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled: Not Applicable

Waste Disposal Method: Dispose of waste accordance with Federal and State Regulations.

Precautions to be Taken in Handling and Storage: Avoid contact of metal with incompatible material.

Other Precautions: None

Section 8 - Health Hazard Data

Routes of Entry: (Primary)

Inhalation: Dust, fumes and mists
Skin: Skin contact
Ingestion: N/A

Effects of Over-exposure: Acute over-exposure by inhalation may result in irritation of upper respiratory tract, metal fume fever (Flu-like symptoms including fever, chills, fatigue, aches, nausea); metallic taste in the mouth; skin or hair discoloration. Ingestion may cause acute gastrointestinal irritation with possible nausea, vomiting, diarrhea, gastritis. Hemolytic anemia from copper-tubing hemodialysis equipment.

Chromic over-exposure may result in skin, hair, and gum discoloration; one study of workers grinding or sieving copper dust showed symptoms of copper poisoning with effects on the blood, liver, lungs and gastrointestinal tract.

Chromium: Toxicity to chromium is dependent upon its valence state (2+, 3+, 6+) and, for chromium compounds, its solubility. Inhalation of chromium fumes and dusts can result in perforation of the nasal septum, irritation of mucous membranes and the upper respiratory tract, sensitization of the respiratory tract, respiratory tract changes including pulmonary cancers, and inflammation of the larynx and liver.

Contact with the skin may cause allergic reactions and rashes. Penetrating ulcers on hands and forearms may result. Ingestion of Cr 6+ may cause intense gastrointestinal irritation with violent epigastric pain, nausea, vomiting, severe diarrhea, hemorrhage, circulatory collapse, unconsciousness, and death.
Silicon: Elemental silicon seems to be inert material, both chemically and biologically. It is classed as nuisance dust. Crystalline formation of the metal could change toxicological properties.