MATERIAL SAFETY DATA SHET SECTION I CERAMIC COLOR & CHEMICAL MFG. CO. 13th Street & 11th Avenue

New Brighton, PA 15066 (724) 846-4000

DATE: 5-21-02

CHEMICAL NAME AND SYNONYMS: Cobalt Sulfate Crystal TRADE NAME AND SYNONYMS: Cobalt Sulfate Crystal

CHEMICAL FAMILY/FORMULA: Inorganic metallic salt CoSo₄7H₂O

SECTION II - HAZARDOUS INGREDIENTS

Section 313 Supplier Notification

This products contains 20% Cobalt and is subject to the reporting requirements of Section 313 of the Emergency planning and Community Right-to-Know act of 1986 and of 40 CFR 372. This information must be included in all Material Safety Data Sheets that are copied and distributed for this material. No other hazardous material is present in concentration greater than 1%.

SECTION III - PHYSICAL/CHEMICAL CHARACTERISICS

BOILING POINT:

N/A

SPECIFIC GRAVITY (H2O=1): 6.1

VAPOR PRESSURE (mmHG): N/A N/A MELTING POINT: EVAPORATION RATE: N/A N/A

VAPOR DENSITY (AIR=1): SOLUBILITY IN WATER:

62 grams/100 grams (very)

VOLATILITY/VOL (%): N/A

APPEARANCE AND ODOR: Clear, odorless red-colored flakes

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD):

N/A

FLAMMABLE LIMITS: N/A

EXTINGUISHING MEDIA: Dry Chemical. Co2. Water

SPECIAL FIRE FIGHTING PROCEDURES: Fire may produce irritating or poisonous gases. Runoff from fire control or dilution water may cause pollution. Do not

scatter spilled material with more water than needed for fire control. Dike fire control water for later disposal.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None expected

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: OSHA PEL - TWA 1.0 mg(Co)/m³,ACGIH TLV-TWA 0.1 (Co)/m³ NIOSH REL- (To Cobalt) TWA 0.05 mg (Co)/m³.(metal, fume and

EFFECTS OF OVEREXPOSURE: Mild irritant to skin, eyes or on inhalation. Moderately toxic. Ingestion produces nausea and vomiting. Cobalt compounds have been shown to produce dermatitis.

RGENCY AND FIRST AID PROCEDURES: EYES: Irrigate with water for 15 minutes. SKIN: Wash off contact areas with water or remove contaminated

.ning and shower. INHALATION: Remove to fresh air. Give oxygen if necessary.

INGESTION: Drink large amounts of water and induce vomiting if large amount ingested. SEEK MEDICAL ATTENTION AS NECESSARY IN THE EVENT OF ANY ACCIDENTAL EXPOSURE TO THIS PRODUCT.

CARCINOGENICITY INFORMATION: This product is not listed as a carcinogen by NTP, IARC, or OSHA.

SECTION VI - REACTIVITY DATA

STABILITY: Stable

INCOMPATIBILITY (MATERIALS TO AVOID): Non expected

HAZARDOUS DECOMPOSITION PRODUCTS: Toxic fumes and metal oxides may be present during decomposition.

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID: None expected

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Contain the spill. Pick up and place in an approved container for disposal. WASTE DISPOSAL METHOD: Place in an approved container and dispose of in accordance with Federal, State and Local regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (SPECIFY TYPE): Approved respirator for dust or fumes. VENTILATION: Sufficient to keep the cobalt level below the permissible exposure limits.

PROTECTIVE GLOVES: Rubber or neoprene EYE PROTECTION: Goggles or face shield.

OTHER PROTECTIVE EQUIPMENT: Rubber apron, boots to prevent skin contact. Safety showers and eye wash station should be present in work area.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: To be stored in normal dry warehouses.

The information provided in this material safety data sheet is believed to be accurate and was obtained from sources believed to be reliable however, the information is provided without any representation or warranty, expressed or implied, with respect to its accuracy or completeness. It is the users' responsibility to determine the suitability of this product and relevance of this information for their use. We do not assume liability resulting from the use, handling, storage, disposal of this product.