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HARSHAW/FILTROL

MATERIAL SAFETY DATA SHEET
(Similar to OSHA Form 20)

CODE: 556-002

PRODUCT NAME
Cu-0202 P Copper Chromite
Catalyst

DATE: 07/02/84

H-33-84-WP

SECTION I -- IDENTIFICATION

SUPPLIER'S NAME Harshaw/Filtrol Partnership

EMERGENCY TELEPHONE 216/292-9200

ADDRESS 30100 Chagrin Blvd.
Cleveland, Ohio 44124

CHEMICAL NAME Copper Chromite and
Copper Oxide

CAS No. 12018-10-9/1317-38-0

U.N. No. Not applicable

FORMULA $CuCr(2)O(4)+CuO$

D.O.T. CLASSIFICATION Not regulated

SECTION II -- HAZARDOUS INGREDIENTS OF MIXTURES

Material or Component	%	Threshold Limit Value
Copper content (as Cu)	≅63	1mg/m ³ as Copper Dust-TWA (ACGIH, 1984)
Chromium (+3) content (as Cr)	≅12	0.5 mg/m ³ as Cr ⁺³ -TWA (ACGIH, 1984)
Soluble chromium (+6)	Trace	0.05 mg/m ³ as Cr ⁺⁶ -TWA (ACGIH, 1984)

SECTION III -- PHYSICAL DATA

BOILING POINT Not applicable

MELTING POINT Not applicable

SPECIFIC GRAVITY (H₂O=1) Not available

VAPOR PRESSURE Not applicable

VAPOR DENSITY (Air=1) Not applicable

SOLUBILITY IN H₂O (% by Wt.) Slightly
soluble

% VOLATILES BY VOLUME Not applicable

EVAPORATION RATE (Butyl Acetate=1)
Not applicable

APPEARANCE AND ODOR Black powder; odorless

SECTION IV -- FIRE AND EXPLOSION DATA

Not a fire or explosion hazard.

SECTION V -- HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

See Section II above

EFFECTS OF OVEREXPOSURE

Eye and skin contact cause mild irritation.

Inhalation may cause irritation to respiratory tract and also lung damage if exposure is repeated or prolonged.

EMERGENCY AND FIRST AID PROCEDURES

Eye and Skin contact: Immediately flush eyes with water to remove particles. Call a physician if irritation develops. Wash skin with soap and water.

Inhalation: Remove to fresh air. If breathing is difficult, give oxygen. Call a physician.

DATE: 07/02/84 SECTION VI -- REACTIVITY DATA CODE: 556-002

CONDITIONS CONTRIBUTING TO INSTABILITY None expected

INCOMPATIBILITY None expected

HAZARDOUS DECOMPOSITION PRODUCTS None expected.

SECTION VII -- SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

If not contaminated, scoop up for reuse. If contaminated, scoop or vacuum into container for disposal. Avoid dusting.

WASTE DISPOSAL METHOD Dispose of in accordance with Federal, state and local laws. This product, if disposed of by itself, may be a hazardous waste under the EP toxicity test of the EPA solid waste regulations because of extractable chromium. Mixtures containing this product should be tested for EP toxicity.

SECTION VIII -- PROTECTIVE EQUIPMENT

VENTILATION Local exhaust ventilation to control dusting.

PERSONAL PROTECTIVE EQUIPMENT

Chemical goggles.

Gloves

A NIOSH/MSHA approved respirator as necessary

SECTION IX -- SPECIAL PRECAUTIONS

Avoid breathing dust.
Keep container closed.

SECTION X -- PERSONNEL SAMPLING PROCEDURE

Refer to NIOSH Manual of Analytical Methods, Vol. 1, Second Edition, Method No. 173 for information on monitoring for airborne materials containing copper and chromium compounds.

Refer to NIOSH Manual of Analytical Methods, Vol. 6, Second Edition, Method No. S319 for information on monitoring for airborne materials containing hexavalent chromium.

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PRODUCT: Cu-0202 P Copper Chromite Catalyst

Cu-0202 P

CuO	80% min.
Cr ₂ O ₃	15.5% min.
H ₂ O Soluble	0.5% max.
Thru 325 Mesh	95% min.

Meets Military Specification MPD 742 B

KPM 981