#8567a

HATERIAL SAFETY DATA SHEET

SECTION I

CHEMICAL NAME:

Cobaltous oxide

PRODUCT NAME:

Cobalt oxide

MANUFACTURERS NAME:

The Shepherd Chemical Company

ADDRESS:

4900 Beech Street, Cincinnati, Ohio 45212

EMERGENCY TELEPHONE NO. (513) 731-1110 DATE PREPARED: December 1993

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

AND HAZARDOUS COMPONENTS

(SPECIFIC CHEMICAL IDENTITY; OSHA PEL COMMON NAME) / (Mg/M3) C.A.S. NO.

ACGIH TLV

SARA % 313

Cobalt oxide (as Co)

0.1

0.05

1307-96-6

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT:

SPECIFIC GRAVITY (H20=1): 6.45

1935 C

VAPOR PRESSURE (HHHG): N/A MELTING POINT: VAPOR DENSITY (AIR=1): N/A EVAPORATION RATE

N/A

SOLUBILITY IN WATER: negligible (BUTYL ACETATE=1): APPEARANCE AND ODOR: Black/gray solid pieces, no odor.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD): N/A

FLAMMABLE LIMITS: LEL N/A UEL N/A

EXTINGUISHING MEDIA: Water

SPECIAL FIREFIGHTING PROCEDURES:

UNUSUAL FIRE AND EXPLOSION HAZARDS:

SECTION V - REACTIVITY DATA

STABILITY: STABLE: X UNSTABLE: CONDITIONS TO AVOID: N/A INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizing agents

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: N/A

HAZARBOUS POLYMERIZATION:

MAY OCCUR: WILL NOT OCCUR: X

CONDITIONS TO AVOID: N/A

THIS PRODUCT CONTAINS A CHEMICAL OR CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III OF THE SUPERFUND AMMENDMENTS AND REAUTHORIZATION ACT OF 1986 AND 40 CFR PART 372. THIS INFORMATION MUST BE INCLUDED IN ALL MSDS; THAT ARE COPIED AND DISTRIBUTED FOR THIS MATERIAL

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SECTION VI - HEALTH HAZARD DATA

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PRODUCT: Cobalt oxide

TOXICITY: orl-rat LD50: 1700mg/kg

ROUTE(S) OF ENTRY: INHALATION: X SKIN: X INGESTION:

CARCINOGENICITY: NTP: NO IARC MONOGRAPHS: X OSHA REGULATED: NO

HEALTH HAZARDS (ACUTE & CHRONIC)/SIGNS AND SYMPTOMS OF EXPOSURE:

This product may cause eye, skin and typer respiratory tract irritation.

Overexposure to cobalt compounds may cause respiratory sensitization and an allergic skin rash. They are mildly irritating to the eyes and if smallened, may cause comiting, diarrhea and a sensation of botness.

Excessive inhalation and/or ingestion of cobalt salts may affect the kidnegs, longs and thyroid. IARC states that cobalt compounds are possibly carcinogenic to humans — Group 2B (Monograph 52).

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

Respiratory system conditions and skin diseases

EMERGENCY AND FIRST AID PROCEDURES:

If inhaled, remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Call a physician. If smallowed, induce vomiting immediately by giving two glasses of water and sticking fineer down throat. Call a physician. Mever give anything by mouth to an unconscious person. In case of contact, immediately flush eges with plenty of water for at least 15 minutes. Call a physician. Wash skin with soap and water.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE. TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Uentilate area of spill. Collect material into appropriate containers for reuse or disposal. Material may also be flushed with mater to a mastemater treatment system.

WASTE DISPOSAL METHOD:

Dispose in closed containers, at an approved landfill, in accordance with local, state and federal regulations. Material mag also be floshed with water to a wastewater treatment system.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:

Keep in closed containers. Avaid generating sust.

OTHER PRECAUTIONS:

Avoid contact with eyes, skin and clothing. Avoid breathing dost. Hash thoroughly after bandling.

SECTION VIII - CONTROL MEASURES

RESPIRATORY PROTECTION: ,NIOSH/MSHA approved for dust

VENTILATION: Sufficient to maintain OSHA PEL

PROTECTIVE GLOVES: Impervious

EYE PROTECTION: Side shield safety glasses or goggles

OTHER PROTECTIVE CLOTHING AND EQUIPMENT: Safety showers and eyemashes HORK/HYGIENIC PRACTICES: Good housekeeping procedures should be followed

to minimize dust.

SECTION IX - REFERENCES

Occupational Health Guidelines for Chemical Hazards, JAN. 1981, NIOSH/OSHA Occupational Diseases - A Guide to their Recognition, JUNE 1977, NIOSH Criteria for Controlling Occupational Exposure to Cobalt, OCT. 1981, NIOSH

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