



## MATERIAL SAFETY DATA SHEET

### SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Cobalt oxide  
**PRODUCT NUMBER:** 1485  
**CHEMICAL NAME:** Cobalt oxide  
**DATE PREPARED:** 10-Jan-07

**MANUFACTURER:**  
The Shepherd Chemical Company  
4900 Beech Street  
Cincinnati, Ohio 45212  
(513)-731-1110 (voice), (513)-731-1532 (fax)

EMERGENCY TELEPHONE NO. 1-800-424-9300 CHEMTREC

### SECTION 2 - COMPOSITION / INFORMATION ON INGREDIENTS

<u>CHEMICAL INGREDIENT</u>	<u>C.A.S. NUMBER</u>	<u>% BY WEIGHT</u>	<u>% METAL</u>
Cobalt oxide (Co <sub>3</sub> O <sub>4</sub> )	1308-06-1	99.9*	73 Co
Nickel oxide (NiO)	1313-99-1	0.2*	0.16 Ni

\* Upper bound limit.

### SECTION 3 - HAZARD IDENTIFICATION

#### EMERGENCY OVERVIEW

**APPEARANCE:** Black/gray solid

**ODOR:** No odor

**CAUTION!** AVOID CONTACT WITH EYES, SKIN AND CLOTHING. AVOID BREATHING DUST. WASH THOROUGHLY AFTER HANDLING. KEEP CONTAINER CLOSED. USE WITH ADEQUATE VENTILATION.

#### POTENTIAL HEALTH EFFECTS, TARGET ORGAN EFFECTS (ACUTE AND CHRONIC)

This product may cause eye, skin and upper 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 swallowed, may cause vomiting, diarrhea and a sensation of hotness.

**CARCINOGENICITY:** IARC states that cobalt compounds are possibly carcinogenic to humans (Group 2B) and nickel compounds are carcinogenic to humans (Group 1).

### SECTION 4 - FIRST AID MEASURES

If inhaled or ingested, call a physician. In case of contact, flush eyes with plenty of water for at least 15 minutes. Call a physician. Flush skin with water.

### SECTION 5 - FIRE FIGHTING MEASURES

**FLASHPOINT/METHOD:** N/A

**FLAMMABLE LIMITS:** LEL: N/A UEL: N/A

**EXTINGUISHING MEDIA:** Water

**SPECIAL FIREFIGHTING PROCEDURES:** Use Self-Contained Breathing-Apparatus.

**FIRE AND EXPLOSION HAZARD:**

N/A

#### **SECTION 6 - ACCIDENTAL RELEASE MEASURES**

Ventilate area of spill. Avoid generating dust. Collect material into appropriate containers for reuse or disposal.

#### **SECTION 7- HANDLING AND STORAGE**

Avoid contact with eyes, skin and clothing. Avoid breathing dust. Wash thoroughly after handling. Store in closed containers. Avoid generating dust.

#### **SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION**

**RESPIRATORY PROTECTION:** Use NIOSH/MSHA approved respirators if OSHA PEL is exceeded.

**SKIN PROTECTION:** Use impervious glove and body-covering clothing.

**EYE PROTECTION:** Use side-shielded safety glasses or goggles.

**ENGINEERING CONTROLS:** Provide general and/or local exhaust ventilation.

**EXPOSURE GUIDELINES:**

<b><u>CHEMICAL INGREDIENT</u></b>	<b><u>OSHA PEL (mg/M3)</u></b>	<b><u>ACGIH TLV (mg/M3)</u></b>
Cobalt oxide (Co <sub>3</sub> O <sub>4</sub> )	0.1 Co	0.02 Co
Nickel oxide (NiO)	1.0 Ni	0.2 Ni

#### **SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

**APPEARANCE:** Black/gray solid

**ODOR:** No odor

**BOILING POINT:** N/A

**VAPOR PRESSURE (mm HG):** N/A

**VAPOR DENSITY (Air = 1):** N/A

**SOLUBILITY IN WATER:** N/A

**SPECIFIC GRAVITY / DENSITY:** 6.45

**FREEZING POINT:** N/A

**pH:** N/A

**EVAPORATION RATE:** N/A

#### **SECTION 10 - STABILITY AND REACTIVITY**

**STABILITY:** This product is stable. Hazardous polymerization will not occur.

**INCOMPATIBILITY:** N/A

**HAZARDOUS DECOMPOSITION BY PRODUCTS:**

N/A

#### **SECTION 11- TOXICOLOGICAL INFORMATION**

oral rat LD50: >5000 mg/kg

#### **SECTION 12- ECOLOGICAL INFORMATION**

Not Available

#### **SECTION 13 - DISPOSAL CONSIDERATION**

Dispose in closed containers, at an approved landfill, in accordance with local, state and federal regulations.

#### **SECTION 14 - TRANSPORT INFORMATION**

This product is not regulated for transportation.

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### **SECTION 15 - REGULATORY INFORMATION**

**OSHA HAZARD COMMUNICATION STANDARD:**

Hazardous due to target organ effects (See Section 3)

**CERCLA/SUPERFUND:**

N/A

**SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT):**

Section 311/312 Hazard Categories: Acute and Chronic Health Hazard

**Section 313- This product contains the following substances subject to 313 reporting:**

Cobalt cmpds - 99.9% max.

Nickel cmpds. - 0.2% max.

**TOXIC SUBSTANCES CONTROL ACT (TSCA):**

All components of this product are on the TSCA Inventory unless otherwise noted in Section 2.

**INTERNATIONAL REGULATIONS:**

Registered in Canada (DSL), Europe (EINECS), and Japan (ENCS)

### **SECTION 16 - OTHER INFORMATION**

**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

**HMIS RATING:**

Health - 2\*

Flammability - 0

Reactivity - 0

Personal Protection - E

**DISCLAIMER**

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