Cobalt Oxide
HEALTH AND SAFETY DATA SHEET

1. Identification of the Substance / Preparation and Company

Product Name
Cobalt Oxide

Chemical name/synonyms
CoO

Use of the substance / preparation
The product is used in industrial manufacturing, in particular in:
- Ceramics
- Coatings

Supplier
Huayou International, Inc.

2. Composition / Information on Ingredients

Chemical Nature of the Substance / Preparation

Components
CAS- 1307-96-6
EINECS 215-154-6
Warning symbol R phrases and other information Xn R22 R43 R43: R50-53
Further information Substance

3. Hazards Identification

3.1 Harmful
Dangerous for the environment
Harmful if swallowed
May cause sensitization by skin contact
Toxic to aquatic organism may cause long-term adverse effects in the aquatic environment.
4. First aid measures

**Skin contact**
Wash with soap and plenty of water, remove soiled or soaked clothing immediately. Wash contaminated clothing re-use.

**Eye contact**
Separate eyelids, wash the eyes thoroughly with water (15 min)

**Inhalation**
Remove affected person from immediate area. Ensure supply of fresh air.

**Ingestion**
Rinse mouth. Consult a physician.

5. Fire-fighting measures

**Suitable extinguishing media:**
The product itself does not burn. Use extinguishing measure that are appropriate to local circumstances and the surrounding environment. E.g. Dry powder, Carbon dioxide (Co2) water jet spray.

**Extinguishing media which must not be used:**
None

**Special exposure hazards arising from the substance or preparation itself, its combustion product, or released gases:**
In the event of a fire the following can be released: Cobalt Oxide Dust.

**Special protective equipment for firefighters**
Wear self contained breathing apparatus ad protective suit.

6. Accidental release measures

**6.1 Personal Precautions:**
Refer to protective measure listed in section 7 and 8 Avoid contact with skin, eyes and clothing. Avoid dust formation. Ensure adequate ventilation.

**6.2 Environmental precautions:**
Avoid dust formation. Do not discharge into drains/ surface water/ground water.

**6.3 Methods for cleaning up:**
Pick up mechanically. Send in suitable containers for recovery or disposal. (section 13)

7. Handling and Storage

**7.1 Handling:**
Council Directive 98/24/EC on the protection of the health and safety of workers from the risk related to chemical agents at work.

**7.2 Safe handling advice:**
Avoid the formation and deposition of dust. Avoid contact with skin and eyes. If workplace exposure limits are exceeded, respiratory protection approved for this particular job must be done.

**7.3 Technical measures/precautions:**
Provide good ventilation of working area(local exhaust fan if necessary)

**7.4 Storage:**
Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances (SEVESO II directive)
7.5 Technical measures/storage conditions:
Always keep in containers of same material as the original one. Store product in closed container. Keep containers tightly closed in a dry, cool and well ventilated place.

7.6 Incompatible products:
None

8. Exposure controls / Personal protection

8.1 Exposure limits
Cobalt compounds as Co:0.1mg/m³(TWA)(UK Occupational Exposure Limits)

8.2 Exposure controls:
Council Directive 98/24/EC on the protection of the health and safety of workers from the risk related to chemical agents at work.

8.3 Occupational exposure controls:
Avoid contact with skin and eyes. Do not breath dust. Avoid repeated exposure. Wear suitable protective equipment. Remove soiled or soaked clothing immediately. Clean skin thoroughly after work. At work do not eat, drink, smoke or take drugs. Keep working clothes separately.

8.4 Respiratory protection:
Use respirator with filter model P3 (DIN3181)

8.5 Hand protection:
Protective gloves: rubber, butyl, neoprene, PVC.

8.6 Eye protection:
Tightly fitting safety goggles, face shield.

8.7 Skin and body protection:
Clothing as usual in the chemical industry.

8.8 Environmental exposure controls:
The employer shall fulfill requirements of IPPC Directive.

9. Physical and chemical properties

General information
Appearance Powder
Colour Grey Black
Odour odourless

Important health, safety and environmental information
Melting temperature approx. 1800 degrees C
Boiling point No Data
PH No Data
Flash point No Data
Flammability (solid, gas) No Data
Explosion properties No Data
Relative Density 0.9-1.3g/cm³ (powder) 6.07g/cm³ (solid substance)
Bulk density No Data
Vapour pressure No Data
Viscosity No Data
Water solubility Insoluable
Fat solubility No Data
Soluability in other solvents Acids; ammonia
Evaporation rate No Data

10. Stability and Reactivity

10.1 Conditions to avoid:
Avoid dust formation.
10.2 Materials to avoid:
None known

10.3 Hazardous decomposition products:
None

11. Toxicological information

11.1 ACUTE TOXICITY
Ingestion\(^{[2]}\)
LD\(_{50}\) oral/rats is 5,000mg/kg

11.2 Corrosive Effects
No data available

11.3 Sensitization:
No data available

11.4 Subacute toxicity
No data available

11.5 Reproductive toxicity
No Data Available

Corrosive Effects
No Data Available.

12. Ecological information

12.1 Ecotoxicity
No Data Available.

12.2 Mobility
No Data Available.

12.3 Persistence/Degradability
No Data Available

12.4 Biocumulative potential
No Data Available

12.5 Other adverse effect
No Data Available

13. Disposal considerations

13.1 EWC Waste Code
EWC Waste Code: 06 03 16 Metallic Oxides than those mentioned in 06 03 15.
The listed waste codes according to the European Waste Catalogue. (EWC) are to be understand a recommendation (2000/532/EC)

13.2 Waste from residue/unused products:
Contact manufacturer. Dispose of as special waste in compliance with local and national regulations.

13.3 Contaminated packaging:
Contaminated packaging should be emptied as far as possible. Packaging that cannot be cleaned.

14. Transport information
This product does not constitute a hazardous substance in national/international, road, rail, sea and air transport.

15. Regulatory information

15.1 Labeling in accordance with EC directives.

Symbol(s) Xn-harmful
N-Dangerous for the environment
Hazardous component(s) to be indicated on label: Cobalt Oxide

R phrase(s)
R22 Harmful if swallowed
R-43 May cause sensitization by skin contact
R50/53 Toxic to aquatic organism may cause long term effects in aquatic environment

S phrase(s)
S24 Avoid contact with skin
S37 Wear suitable gloves
S60 This material must be disposed of as hazardous waste
S61 Avoid release into environment refer to special instructions

National Regulations:
Cobalt compounds are subject to UK chemical hazard information and packaging (CHIP 3)

16. Other information

Relevant R phrase
R22 Harmful if swallowed
R-43 May cause sensitization by skin contact
R50/53 Toxic to aquatic organism may cause long term effects in aquatic environment

Relevant S phrase
S24 Avoid contact with skin
S37 Wear suitable gloves
S60 This material must be disposed of as hazardous waste
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All information presented herein is given in good faith and is based on sources and tests considered to be reliable, but cannot be guaranteed, it is the user’s full responsibility to accept risk for the safety, toxicity, handling, storage as well as to determine the suitability of the product for a specific purpose. We make no warranty as to the results to be obtained in using this product; therefore all risks must be assumed by the user.