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**MATERIAL SAFETY DATA SHEET (MSDS)****COBALT METAL POWDER****1. Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Trade name : COBALT METAL POWDER

Product code : C0072100500

Identification of the product : Cobalt  
CAS No :7440-48-4  
EC No :231-158-0  
Annex No :027-001-00-9

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

Use : Industrial. For professional use only.

**1.3. Details of the supplier of the safety data sheet**

Company identification SUVCHEM  
Chaitanya Tower, 2nd Floor, Office # 206,  
Siddharth Nagar, S.V. Road,  
Goregaon (West), Mumbai - 400062,  
Maharashtra, India.  
Contact: +91 22 28725393 / 94 / 95  
Email ID: info@suvchem.com/care@suvchem.com

**1.4. Emergency telephone number**

Phone no. : + 91 22 28725393 / 94 / 95 (9:00am - 6:00 pm) [ Office hours ]

**2. Hazards identification -DSD****2.1. Classification of the substance or mixture****Classification EC 67/548 or EC 1999/45**

Classification : Xn ; R42/43  
R53

**Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)**

Health hazards : Respiratory sensitization - Category 1 - Danger (CLP : Resp. Sens. 1) H334  
Skin sensitisation - Category 1 - Warning (CLP : Skin Sens. 1) H317

Environmental hazards : Hazardous to the aquatic environment - Chronic hazard - Category 4 (CLP :  
Aquatic Chronic 4) H413

**2.2. Label elements**

### MATERIAL SAFETY DATA SHEET (MSDS)

### COBALT METAL POWDER

#### 2. Hazards identification -DSD (continued)

##### Labelling EC 67/548 or EC 1999/45

##### Symbol(s)



##### Symbol(s)

: Xn : Harmful

##### R Phrase(s)

: R42/43 : May cause sensitization by inhalation and skin contact.  
R53 : May cause long-term adverse effects in the aquatic environment.

##### S Phrase(s)

: S2 : Keep out of the reach of children.  
S22 : Do not breathe dust.  
S24 : Avoid contact with skin.  
S37 : Wear suitable gloves.  
S61 : Avoid release to the environment. Refer to special instructions/Safety data sheets.

##### Contains

: Cobalt

##### Labelling Regulation EC 1272/2008 (CLP)

##### Hazard pictograms



##### Signal words

: Danger

##### Hazard statements

: H334 : May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H317 : May cause an allergic skin reaction.  
H413 : May cause long lasting harmful effects to aquatic life.

##### Precautionary statements

##### • General

: P102: Keep out of reach of children.  
P103: Read label before use.  
P101: If medical advice is needed, have product container or label at hand.

##### • Prevention

: P285: In case of inadequate ventilation wear respiratory protection.  
P280: Wear protective gloves, protective clothing, eye protection, face protection.  
P261: Avoid breathing dust, fume, gas, mist, vapours, spray.  
P273: Avoid release to the environment.  
P272: Contaminated work clothing should not be allowed out of the workplace.

##### • Response

: P302+P352: IF ON SKIN : Wash with plenty of soap and water.  
P304+P341: IF INHALED : If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.  
P333+P313: If skin irritation or rash occurs : Get medical advice.  
P342+P311: If experiencing respiratory symptoms : Call a POISON CENTER or doctor.  
P363: Wash contaminated clothing before reuse.

##### • Disposal considerations

: P501: Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

### MATERIAL SAFETY DATA SHEET (MSDS)

## COBALT METAL POWDER

#### 2. Hazards identification -DSD (continued)

**Contains** : Cobalt

#### 2.3. Other hazards

**Other hazards** : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

#### 3. Composition/information on ingredients

**Substance / Preparation** : Cobalt  
CAS No :7440-48-4  
EC No :231-158-0  
Annex No :027-001-00-9  
Substance.

Substance name	Contents	CAS No	EC No	Annex No	REACH Ref.	Classification
Cobalt	100 %	7440-48-4	231-158-0	027-001-00-9	----	R42/43 R53 ----- Resp. Sens. 1 _ H334 Skin Sens. 1 _ H317 Aquatic Chronic 4 _ H413

Contains no other components or impurities which will influence the classification of the product.

#### 4. First aid measures

##### 4.1. Description of first aid measures

**Inhalation** : If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms :

**Skin contact** : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Specific treatment (see on this label). If skin irritation or rash occurs : Wash with plenty of soap and water. Wash contaminated clothing before reuse. Get medical advice.

**Eye contact** : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

**Ingestion** : Obtain emergency medical attention. Rinse mouth. Do NOT induce vomiting.

##### 4.2. Most important symptoms and effects, both acute and delayed

**Symptoms relating to use** : May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
May cause an allergic skin reaction.

##### 4.3. Indication of any immediate medical attention and special treatment needed

**General information** : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

**MATERIAL SAFETY DATA SHEET (MSDS)****COBALT METAL POWDER****5. Fire-fighting measures****5.1. Extinguishing media**

- Suitable extinguishing media** : Foam. Dry powder. Carbon dioxide. Water spray. Sand.  
**Unsuitable extinguishing media** : Do not use a heavy water stream.  
**Surrounding fires** : Use water spray or fog for cooling exposed containers.

**5.2. Special hazards arising from the substance or mixture**

- Hazardous combustion products** : Under fire conditions, hazardous fumes will be present.

**5.3. Advice for fire-fighters**

- Protection against fire** : Do not enter fire area without proper protective equipment, including respiratory protection.  
**Special procedures** : Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

**6. Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

- For emergency responders** : Equip cleanup crew with proper protection.  
Ventilate area.  
**For non-emergency personnel** : Evacuate unnecessary personnel.

**6.2. Environmental precautions**

- Environmental precautions** : Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.  
Avoid release to the environment.

**6.3. Methods and material for containment and cleaning up**

- Clean up methods** : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

**6.4. Reference to other sections**

See section 8. Exposure controls/personal protection

**7. Handling and storage****7.1. Precautions for safe handling**

## MATERIAL SAFETY DATA SHEET (MSDS)

### COBALT METAL POWDER

#### 7. Handling and storage (continued)

- Handling** : Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work. Avoid breathing dust, fume, gas, mist, vapours, spray. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.
- Technical protective measures** : Provide good ventilation in process area to prevent formation of vapour.

#### 7.2. Conditions for safe storage, including any incompatibilities

- Storage** : Keep only in the original container in a cool, well ventilated place. Keep container closed when not in use.
- Storage - away from** : Strong bases. Strong acids. Sources of ignition. Direct sunlight.

#### 7.3. Specific end use(s)

- Specific end use(s)** : None.

#### 8. Exposure controls/personal protection

##### 8.1. Exposure controls

- Personal protection** : Avoid all unnecessary exposure.
- **Respiratory protection** : In case of inadequate ventilation wear respiratory protection.
  - **Hand protection** : Wear protective gloves.
  - **Eye protection** : Chemical goggles or safety glasses.
  - **Others** : When using, do not eat, drink or smoke.

##### 8.2. Control parameters

- Occupational Exposure Limits** : No data available.

#### 9. Physical and chemical properties

##### 9.1. Information on basic physical and chemical properties

- Physical state at 20 °C** : Solid.
- Colour** : Dark grey fine powder
- Odour** : N/A
- Odour threshold** : No data available.
- pH value** : No data available.
- Melting point [°C]** : 1493°C
- Decomposition point [°C]** : N/A

**MATERIAL SAFETY DATA SHEET (MSDS)**
**COBALT METAL POWDER**
**9. Physical and chemical properties (continued)**

Critical temperature [°C]	: N/A
Auto-ignition temperature [°C]	: N/A
Flammability (solid, gas)	: N/A
Flash point [°C]	: N/A
Boiling point [°C]	: 3100°C
Initial boiling point [°C]	: N/A
Final boiling point [°C]	: N/A
Evaporation rate	: N/A
Vapour pressure [20°C]	: N/A
Vapour pressure mm/Hg	: N/A
Vapour density	: N/A
Density [g/cm <sup>3</sup> ]	: 8,92
Relative density, gas (air=1)	: N/A
Relative density, liquid (water=1)	: N/A
Solubility in water [% weight]	: Insoluble in water
Solubility in water	: N/A
Log Pow octanol / water at 20°C	: No data available.
Solubility	: N/A
Viscosity at 40°C [mm <sup>2</sup> /s]	: N/A

**9.2. Other information**

Explosive properties	: N/A
Explosion limits - upper [%]	: N/A
Explosion limits - lower [%]	: N/A
Oxidising properties	: No data available.

**10. Stability and reactivity**
**10.1. Reactivity**

Reactivity	: Not established.
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**10.2. Chemical stability**

Chemical stability	: Stable under recommended storage conditions.
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**10.3. Possibility of hazardous reactions**

Hazardous reactions	: Not established.
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**10.4. Conditions to avoid**

**MATERIAL SAFETY DATA SHEET (MSDS)**
**COBALT METAL POWDER**
**10. Stability and reactivity (continued)**

**Conditions to avoid** : Direct sunlight. Extremely high or low temperatures.

**10.5. Incompatible materials**

**Materials to avoid** : Strong acids. Strong bases.

**10.6. Hazardous decomposition products**

**Hazardous decomposition products** : Fumes. Carbon monoxide. Carbon dioxide.

**11. Toxicological information**
**11.1. Information on toxicological effects**
**Acute toxicity**

- **Inhalation** : Based on available data, the classification criteria are not met.
- **Dermal** : Based on available data, the classification criteria are not met.
- **Ingestion** : Based on available data, the classification criteria are not met.

**Corrosion** : Based on available data, the classification criteria are not met.

**Irritation** : Based on available data, the classification criteria are not met.

**Sensitization** : May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
May cause an allergic skin reaction.

**Mutagenicity** : Based on available data, the classification criteria are not met.

**Carcinogenicity** : Based on available data, the classification criteria are not met.

**Toxic for reproduction** : Based on available data, the classification criteria are not met.

**STOT-single exposure** : Based on available data, the classification criteria are not met.

**STOT-repeated exposure** : Based on available data, the classification criteria are not met.

**Aspiration hazard** : Based on available data, the classification criteria are not met.

**12. Ecological information**
**12.1. Toxicity**

**Toxicity information** : May cause long lasting harmful effects to aquatic life.

**12.2. Persistence - degradability**

**Persistence - degradability** : May cause long-term adverse effects in the environment.

**12.3. Bioaccumulative potential**

**MATERIAL SAFETY DATA SHEET (MSDS)**
**COBALT METAL POWDER**
**12. Ecological information (continued)**

**Bioaccumulative potential** : Not established.

**12.4. Mobility in soil**

**Mobility in soil** : Not established.

**12.5. Results of PBT and vPvB assessment**

**Results of PBT and vPvB assessment** : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

**12.6. Other adverse effects**

**Environmental precautions** : Avoid release to the environment.

**13. Disposal considerations**
**13.1. Waste treatment methods**

**General** : Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.  
 Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

**14. Transport information**
**14.1. Land transport (ADR-RID)**

**Proper shipping name** : METAL POWDER, FLAMMABLE, N.O.S.  
**UN N°** : 3089  
**H.I. nr** : 40  
**ADR - Class** : 4.1  
**Labelling - Transport** : 4.1 : Flammable solids, self-reactive substances and desensitized explosives.



**ADR - Classification code** : F3  
**ADR - Group** : II  
**ADR - Packing instructions** : P002  
**ADR - Limited Quantity** : 1 KG



**MATERIAL SAFETY DATA SHEET (MSDS)**
**COBALT METAL POWDER**
**14. Transport information (continued)**

ADR - Tunnel code



: E : Passage forbidden through tunnels of category E.

**14.2. Sea transport (IMDG) [English only]**

Proper shipping name : METAL POWDER, FLAMMABLE, N.O.S.  
 UN N° : 3089  
 IMO-IMDG - Class or division : 4.1 : Flammable solids, self-reactive substances and desensitized explosives.  
 IMO-IMDG - Packing group : II  
 IMO-IMDG - Packing instructions : P002  
 IMO-IMDG - Limited quantities : 1 kg  
 IMO-IMDG - Marine pollution : No  
 EMS-Nr : F-G S-G

**14.3. Air transport (ICAO-IATA) [English only]**

Proper shipping name : METAL POWDER, FLAMMABLE, N.O.S.  
 UN N° : 3089  
 IATA - Class or division : 4.1 : Flammable solids, self-reactive substances and desensitized explosives.  
 IATA - Packing group : II  
 IATA - Passenger and Cargo Aircraft : ALLOWED  
   - Passenger and Cargo - Packing instruction : 445  
   - Passenger and Cargo - Maximum Quantity/Packing : 15 kg  
 IATA - Cargo only : ALLOWED  
   - Cargo only - Packing instruction : 448  
   - Cargo only - Maximum Quantity/Packing : 50 kg  
 IATA - Limited Quantities : 5 kg  
 ERG-Nr : 3L

**15. Regulatory information**
**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Safety, health and environmental regulations/legislation specific for the substance or mixture : Ensure all national/local regulations are observed.

**MATERIAL SAFETY DATA SHEET (MSDS)**

**COBALT METAL POWDER**

In accordance with REACH Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008

**DISCLAIMER:**

- **SUVCHEM** Products are to be used as Lab Chemicals for R&D only. Not for drug, medicinal, household or other uses.
- **SUVCHEM** shall not be responsible for any damage resulting from handling or from contact with the above product.
- **SUVCHEM** provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product.

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