



# SAFETY DATA SHEET

**MATERION**

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

**Name of the substance** Cobalt Sulfide (CoS<sub>2</sub>)  
**Identification number** 12013-10-4 (CAS number)  
**Synonyms** None.  
**Document number** C-MSDS0072  
**Issue date** 23-April-2015  
**Version number** 01

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

**Identified uses** Not available.  
**Uses advised against** None known.

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

#### Supplier

**Company name** Materion Advanced Chemicals Inc.  
**Address** 407 N. 13th Street  
1316 W. St. Paul Avenue  
Milwaukee, WI 53233  
United States  
**Division** Milwaukee  
**Telephone** 414.212.0257  
**e-mail** advancedmaterials@materion.com  
**Contact person** Noreen Atkinson

### 1.4. Emergency telephone number

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Classification according to Directive 67/548/EEC or 1999/45/EC as amended**

**Classification according to Regulation (EC) No 1272/2008 as amended**

**Health hazards**  
Carcinogenicity

Category 2

H351 - Suspected of causing cancer.

#### Hazard summary

**Physical hazards** Not classified for physical hazards.  
**Health hazards** Not classified for health hazards.  
**Environmental hazards** Not classified for hazards to the environment.  
**Specific hazards** Not available.  
**Main symptoms** Not available.

### 2.2. Label elements

**Label according to Regulation (EC) No. 1272/2008 as amended**

**Contains:** Cobalt sulphide  
**Hazard pictograms** None.  
**Signal word** Warning  
**Hazard statements**  
H351 Suspected of causing cancer.

#### Precautionary statements

**Prevention**  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P281 Use personal protective equipment as required.

**Response**

P308 + P313 IF exposed or concerned: Get medical advice/attention.

**Storage**

P405 Store locked up.

**Disposal**

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Supplemental label information**

None.

**2.3. Other hazards**

None known.

**SECTION 3: Composition/information on ingredients****3.1. Substances****General information**

| Chemical name          | %   | CAS-No. / EC No.         | REACH Registration No. | INDEX No. | Notes |
|------------------------|-----|--------------------------|------------------------|-----------|-------|
| Cobalt sulphide        | 100 | 12013-10-4<br>235-751-5  | -                      | -         |       |
| <b>Classification:</b> |     | <b>DSD:</b> -            |                        |           |       |
|                        |     | <b>CLP:</b> Carc. 2;H351 |                        |           |       |

**SECTION 4: First aid measures****General information** Not available.**4.1. Description of first aid measures****Inhalation** Not available.**Skin contact** Not available.**Eye contact** Not available.**Ingestion** Not available.**4.2. Most important symptoms and effects, both acute and delayed** Not available.**4.3. Indication of any immediate medical attention and special treatment needed** Not available.**SECTION 5: Firefighting measures****General fire hazards** Not available.**5.1. Extinguishing media****Suitable extinguishing media** Not available.**Unsuitable extinguishing media** Not available.**5.2. Special hazards arising from the substance or mixture** Not available.**5.3. Advice for firefighters****Special protective equipment for firefighters** Not available.**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures****For non-emergency personnel** Not available.**For emergency responders** Not available.**6.2. Environmental precautions** Not available.

**6.3. Methods and material for containment and cleaning up** Not available.

**6.4. Reference to other sections** Not available.

## SECTION 7: Handling and storage

**7.1. Precautions for safe handling** Not available.

**7.2. Conditions for safe storage, including any incompatibilities** Not available.

**7.3. Specific end use(s)** Not available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

##### Spain. Occupational Exposure Limits

| Material                         | Type | Value      |
|----------------------------------|------|------------|
| Cobalt sulphide (CAS 12013-10-4) | TWA  | 0,02 mg/m3 |

#### Biological limit values

##### Spain. Biological Limit Values (VLBs), Occupational Exposure Limits for Chemical Agents, Table 4

| Material                         | Value   | Determinant | Specimen | Sampling time |
|----------------------------------|---------|-------------|----------|---------------|
| Cobalt sulphide (CAS 12013-10-4) | 15 µg/l | Cobalto     | Urine    | *             |
|                                  | 1 µg/l  | Cobalto     | Blood    | *             |

\* - For sampling details, please see the source document.

**Recommended monitoring procedures** Not available.

**Derived no-effect level (DNEL)** Not available.

**Predicted no effect concentrations (PNECs)** Not available.

### 8.2. Exposure controls

**Appropriate engineering controls** Not available.

#### Individual protection measures, such as personal protective equipment

**General information** Not available.

**Eye/face protection** Not available.

##### Skin protection

- **Hand protection** Not available.

- **Other** Not available.

**Respiratory protection** Not available.

**Thermal hazards** Not available.

**Hygiene measures** Not available.

**Environmental exposure controls** Not available.

## SECTION 9: Physical and chemical properties

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

#### Appearance

**Physical state** Solid.

**Form** Not available.

**Colour** Not available.

**Odour** Not applicable.

**Odour threshold** Not applicable.

**pH** Not applicable.

**Melting point/freezing point** Not available.

|   |                  |
|---|------------------|
| <b>Initial boiling point and boiling range</b>      | Not available.   |
| <b>Flash point</b>                                  | Not available.   |
| <b>Evaporation rate</b>                             | Not available.   |
| <b>Flammability (solid, gas)</b>                    | Not applicable.  |
| <b>Upper/lower flammability or explosive limits</b> |                  |
| <b>Flammability limit - lower (%)</b>               | Not available.   |
| <b>Flammability limit - upper (%)</b>               | Not available.   |
| <b>Vapour pressure</b>                              | < 0 kPa at 25 °C |
| <b>Vapour density</b>                               | Not applicable.  |
| <b>Relative density</b>                             | Not applicable.  |
| <b>Solubility(ies)</b>                              |                  |
| <b>Solubility (water)</b>                           | Not applicable.  |
| <b>Solubility (other)</b>                           | Not available.   |
| <b>Partition coefficient (n-octanol/water)</b>      | Not available.   |
| <b>Auto-ignition temperature</b>                    | Not available.   |
| <b>Decomposition temperature</b>                    | Not available.   |
| <b>Viscosity</b>                                    | Not available.   |
| <b>Explosive properties</b>                         | Not available.   |
| <b>Oxidizing properties</b>                         | Not applicable.  |
| <b>9.2. Other information</b>                       |                  |
| <b>Molecular formula</b>                            | CoS2             |

## SECTION 10: Stability and reactivity

|   |                |
|---|----------------|
| <b>10.1. Reactivity</b>                         | Not available. |
| <b>10.2. Chemical stability</b>                 | Not available. |
| <b>10.3. Possibility of hazardous reactions</b> | Not available. |
| <b>10.4. Conditions to avoid</b>                | Not available. |
| <b>10.5. Incompatible materials</b>             | Not available. |
| <b>10.6. Hazardous decomposition products</b>   | Not available. |

## SECTION 11: Toxicological information

|   |                    |
|---|--------------------|
| <b>General information</b>                        | Not available.     |
| <b>Information on likely routes of exposure</b>   |                    |
| <b>Ingestion</b>                                  | Not available.     |
| <b>Inhalation</b>                                 | Not available.     |
| <b>Skin contact</b>                               | Not available.     |
| <b>Eye contact</b>                                | Not available.     |
| <b>Symptoms</b>                                   | Not available.     |
| <b>11.1. Information on toxicological effects</b> |                    |
| <b>Acute toxicity</b>                             | No data available. |
| <b>Skin corrosion/irritation</b>                  | Not available.     |
| <b>Serious eye damage/eye irritation</b>          | Not available.     |
| <b>Respiratory sensitisation</b>                  | Not available.     |
| <b>Skin sensitisation</b>                         | Not available.     |
| <b>Germ cell mutagenicity</b>                     | Not available.     |
| <b>Carcinogenicity</b>                            |                    |

### IARC Monographs. Overall Evaluation of Carcinogenicity

Cobalt sulphide (CAS 12013-10-4)

2B Possibly carcinogenic to humans.

|                              |                |
|------------------------------|----------------|
| <b>Reproductive toxicity</b> | Not available. |
|------------------------------|----------------|

|   |                |
|---|----------------|
| <b>Specific target organ toxicity - single exposure</b>   | Not available. |
| <b>Specific target organ toxicity - repeated exposure</b> | Not available. |
| <b>Aspiration hazard</b>                                  | Not available. |
| <b>Mixture versus substance information</b>               | Not available. |
| <b>Other information</b>                                  | Not available. |

## SECTION 12: Ecological information

|  |   |
|--|---|
| <b>12.1. Toxicity</b>                                  | Not available.                          |
| <b>12.2. Persistence and degradability</b>             | Not available.                          |
| <b>12.3. Bioaccumulative potential</b>                 | Not available.                          |
| <b>Partition coefficient n-octanol/water (log Kow)</b> | Not available.                          |
| <b>Bioconcentration factor (BCF)</b>                   | Not available.                          |
| <b>12.4. Mobility in soil</b>                          | Not available.                          |
| <b>12.5. Results of PBT and vPvB assessment</b>        | Not a PBT or vPvB substance or mixture. |
| <b>12.6. Other adverse effects</b>                     | Not available.                          |

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

|                       |                |
|-----------------------|----------------|
| <b>Residual waste</b> | Not available. |
| <b>Packaging</b>      | Not available. |
| <b>EU waste code</b>  | Not available. |

## SECTION 14: Transport information

### ADR

Not regulated as dangerous goods.

### RID

Not regulated as dangerous goods.

### ADN

Not regulated as dangerous goods.

### IATA

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU regulations

##### **Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I**

Not listed.

##### **Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex II**

Not listed.

##### **Regulation (EC) No. 850/2004 on persistent organic pollutants, Annex I**

Not listed.

##### **Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1**

Not listed.

##### **Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2**

Not listed.

##### **Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3**

Not listed.

##### **Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V**

Not listed.

**Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry**

Not listed.

**Regulation (EC) No. 1907/2006, REACH Article 59(1) Candidate List as currently published by ECHA**

Not listed.

**Authorisations**

**Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended**

Not listed.

**Restrictions on use**

**Regulation (EC) No. 1907/2006 Annex XVII Substances subject to restriction on marketing and use**

Not regulated.

**Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work**

Not listed.

**Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding**

Not listed.

**Other EU regulations**

**Directive 96/82/EC (Seveso II) on the control of major-accident hazards involving dangerous substances**

Not listed.

**Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work**

Not listed.

**Directive 94/33/EC on the protection of young people at work**

Not listed.

**National regulations** Not available.

**15.2. Chemical safety assessment** Not available.

**SECTION 16: Other information**

**List of abbreviations** Not available.

**References** Not available.

**Information on evaluation method leading to the classification of mixture** Not available.

**Full text of any statements or R-phrases and H-statements under Sections 2 to 15** H351 Suspected of causing cancer.

**Revision information** None.

**Training information** Not available.