



SAFETY DATA SHEET

MATERION

1. Product and company identification

Product name Cobalt oxide (CoO)
Materion Code C-MSDS0061
Manufacturer/Supplier Address Materion Advanced Chemicals Inc.
407 N. 13th Street
1316 W. St. Paul Avenue
Milwaukee, WI 53233
United States
Telephone 414.212.0257
e-mail advancedmaterials@materion.com
Contact person Noreen Atkinson
Emergency telephone number

Recommended use and Limitations on use

Recommended use Not available.

2. Hazards identification

GHS classification

Physical hazards Not classified.
Health hazards Acute toxicity, oral Category 3
Sensitization, skin Category 1
Carcinogenicity Category 2
Environmental hazards Hazardous to the aquatic environment, acute hazard Category 1
Hazardous to the aquatic environment, long-term hazard Category 1

Label elements

Symbols None.
Signal word None.
Hazard statement None.

3. Composition/information on ingredients

Substance or mixture Substance

Chemical property	CAS Number	Concentration (%)
Cobalt Oxide	1307-96-6	100

4. First aid measures

Inhalation Not available.
Skin contact Not available.
Eye contact Not available.
Ingestion Not available.
Potential delayed effects Not available.
Personal protection for first-aid responders Not available.
Notes to physician Not available.

5. Fire-fighting measures

Extinguishing media Not available.
Extinguishing media to avoid None.
HAZCHEM Code Number None.
Specific hazards during fire fighting None.

Special fire fighting procedures	Not available.
Protection of fire-fighters	Not available.
Hazards from combustion products	None.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Not available.
Environmental precautions	Not available.
Spill cleanup methods	Not available.

7. Handling and storage

Handling

Precautions	Not available.
Safe handling advice	Not available.
Prevention of fire and explosion	Not available.

Storage

Suitable storage conditions	Not available.
Incompatible materials	Not available.

8. Exposure controls/personal protection

Exposure limits

US. ACGIH Threshold Limit Values

Material	Type	Value
Cobalt Oxide (CAS 1307-96-6)	TWA	0.02 mg/m ³

UK. EH40 Workplace Exposure Limits (WELs)

Material	Type	Value
Cobalt Oxide (CAS 1307-96-6)	TWA	0.1 mg/m ³

Biological limit values

ACGIH Biological Exposure Indices

Material	Value	Determinant	Specimen	Sampling time
Cobalt Oxide (CAS 1307-96-6)	15 µg/l	Cobalt	Urine	*
	1 µg/l	Cobalt	Blood	*

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

Engineering controls

Personal protective equipment

Respiratory protection	Not available.
Skin protection	Not available.
Eye/face protection	Not available.
Radioactive or thermal hazards	Not available.
Hygiene measures	Not available.

9. Physical and chemical properties

Appearance

Physical state	Solid.
Colour	Not available.

Odour Not applicable.

Odour threshold Not applicable.

pH Not applicable.

Melting point/freezing point 1935 °C (3515 °F)

Boiling point, initial boiling point, and boiling range	Not available.
Flash point	Not available.
Auto-ignition temperature	Not available.
Flammability (solid, gas)	Not applicable.
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit – upper (%)	Not available.
Vapour pressure	< 0 kPa at 25 °C
Vapour density	Not applicable.
Evaporation rate	Not available.
Relative density	Not applicable.
Density	5.70 g/cm ³ estimated
Solubility(ies)	
Solubility (water)	Not applicable.
Partition coefficient (n-octanol/water)	Not available.
Decomposition temperature	Not available.
Molecular weight	74.93 g/mol
Other data	
Molecular formula	Co-O
Specific gravity	5.7 - 6.7

10. Stability and reactivity

Stability	None.
Conditions to avoid	None.
Incompatible materials	None.
Hazardous decomposition products	None.
Possibility of hazardous reactions	None.

11. Toxicological information

Product	Species	Test results
Cobalt Oxide (CAS 1307-96-6)		
Acute		
<i>Oral</i>		
LD50	Rat	202 mg/kg
<i>Other</i>		
LD50	Mouse	125 mg/kg
Routes of exposure	Not available.	
Symptoms	Not available.	
Skin corrosion/irritation	Not available.	
Serious eye damage/eye irritation	Not available.	
Skin sensitiser	Not available.	
Carcinogenicity		
IARC Monographs. Overall Evaluation of Carcinogenicity		
Cobalt Oxide (CAS 1307-96-6)	2B Possibly carcinogenic to humans.	
Chronic effects	Not available.	
Relevant negative data	Not available.	

12. Ecological information

Ecotoxicity	Not available.
Persistence and degradability	Not available.
Bioaccumulation	Not available.
Partition coefficient n-octanol/water (log Kow)	Not available.
Bioconcentration factor (BCF)	Not available.
Mobility	Not available.
Other hazardous effects	Not available.

13. Disposal considerations

Disposal methods/information	Not available.
Special precautions	Not available.

14. Transport information

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

**Transport in bulk according to
Annex II of MARPOL 73/78
and the IBC Code** Not available.

15. Regulatory information

Applicable regulations

New Zealand Inventory of Chemicals (NZIoC): Registration status

Cobalt Oxide (CAS 1307-96-6)

May be used as a component in a product covered by a group standard but it is not approved for use as a chemical in its own right.

16. Other information

References	Not available.
Issued by	Not available.
Prepared by	Not available.
Issue date	16-April-2015
Revision date	23-April-2015