

SAFETY DATA SHEET

according to 1907/2006/EC, Article 31

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Cobaltous/ic Oxide Silvered Granular

Revision 3

Revision date 2014-03-21

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

1.1. Product identifier

Product name Cobaltous/ic Oxide Silvered Granular

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

Product Use [SU22] Professional uses: Public domain (administration, education, entertainment, services, craftsmen); [SU24] Scientific research and development; [PC21] Laboratory chemicals; [PROC15] Use as laboratory reagent; [ERC8b] Wide dispersive indoor use of reactive substances in open systems;

1.3. Details of the supplier of the safety data sheet

Company Elemental Microanalysis Ltd
Address Hameldown Road
 Okehampton Business Park
 Exeter Road
 Okehampton
 Devon EX20 1UB
 United Kingdom
Web www.microanalysis.co.uk
Telephone +44 (0) 1837 54446
Fax +44 (0) 1837 54544
Email info@microanalysis.co.uk
Email address of the competent person .

1.4. Emergency telephone number

Emergency telephone number +44 (0) 7990 767375
 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.1. Classification - 1999/45/EC T; R49 Xn; R40 Xi; R43
 Symbols: T: Toxic.

Main hazards Limited evidence of a carcinogenic effect. May cause sensitisation by skin contact. May cause cancer by inhalation.

2.2. Label elements

Symbols T: Toxic.



Risk phrases R40 - Limited evidence of a carcinogenic effect.
 R43 - May cause sensitisation by skin contact.
 R49 - May cause cancer by inhalation.

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2.2. Label elements

Safety phrases	S24 - Avoid contact with skin. S36/37 - Wear suitable protective clothing and gloves. S53 - Avoid exposure - obtain special instructions before use.
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2.3. Other hazards

Other hazards	No data available.
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SECTION 3: Composition/information on ingredients

3.2. Mixtures

67/548/EEC / 1999/45/EC

Chemical Name	Index No.	CAS No.	EC No.	REACH Registration Number	Conc. (%w/w)	Classification
Cobalt (II,III) Oxide		1308-06-1	215-157-2			T; R49 Xn; R40 Xi; R43
Silver		7440-22-4	231-131-3			

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Move the exposed person to fresh air. Seek medical attention if irritation or symptoms persist.
Eye contact	Rinse immediately with plenty of water for 15 minutes holding the eyelids open. Seek medical attention.
Skin contact	Remove contaminated clothing. Wash with soap and water.
Ingestion	Drink 1 to 2 glasses of water. Rinse mouth thoroughly.

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

Inhalation	Prolonged or repeated exposure may cause: Fatigue, Cardiac Irregularities, convulsions, vomiting.
Eye contact	Prolonged or repeated exposure may cause: Fatigue, Cardiac Irregularities, convulsions, vomiting.
Skin contact	Prolonged or repeated exposure may cause: Fatigue, Cardiac Irregularities, convulsions, vomiting.
Ingestion	Prolonged or repeated exposure may cause: Fatigue, Cardiac Irregularities, convulsions, vomiting.

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

Inhalation	No data available.
Eye contact	No data available.
Skin contact	No data available.
Ingestion	No data available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

	Use extinguishing media appropriate to the surrounding fire conditions.
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5.2. Special hazards arising from the substance or mixture

	No data available.
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5.3. Advice for firefighters

	Wear suitable respiratory equipment when necessary.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

	Wear suitable protective equipment. Avoid formation of dust. Do not breathe dust. Do not breathe gas/fumes/vapour/spray. Ensure adequate ventilation of the working area. Evacuate personnel to a safe area.
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6.2. Environmental precautions

	Do not allow product to enter drains. Do not flush into surface water. Do not let product contaminate subsoil.
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6.3. Methods and material for containment and cleaning up

Avoid raising dust. Sweep up. Transfer to suitable, labelled containers for disposal.

6.4. Reference to other sections

SECTION 13: Disposal considerations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Appropriate local exhaust ventilation is required. Do not breathe dust or vapour.

7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed. Store in a cool, dry area.

7.3. Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

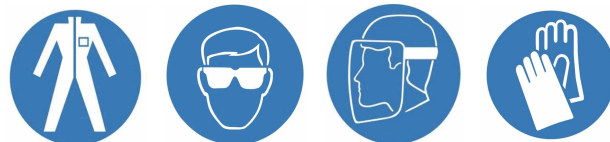
8.1. Control parameters

None.

8.1.1. Exposure Limit Values

Cobalt (II,III) Oxide	WEL 8-hr limit ppm: WEL 15 min limit ppm:	WEL 8-hr limit mg/m3: 0.1 WEL 15 min limit mg/m3:
Silver	WEL 8-hr limit ppm: - WEL 15 min limit ppm: -	WEL 8-hr limit mg/m3: 0.1 WEL 15 min limit mg/m3: -

8.2. Exposure controls



8.2.1. Appropriate engineering controls

Ensure adequate ventilation of the working area.

Eye / face protection

Approved safety goggles.

Skin protection -
Handprotection

Wear suitable gloves.

Skin protection - Other

Wear suitable protective clothing.

Respiratory protection

Wear suitable respiratory equipment when necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

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9.1. Information on basic physical and chemical properties

State	Granules.
Colour	Grey
Odour	Odourless
pH	No data available
Melting point	No data available
Freezing Point	No data available
Boiling point	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability limits	No data available
Vapour Flammability	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	No data available
Fat Solubility	No data available
Partition coefficient	No data available
Autoignition temperature	No data available
Viscosity	No data available
Explosive	No data available
Oxidising	No data available
Solubility	No data available

9.2. Other information

Conductivity	No data available
Surface tension	No data available
Gas group	No data available
Benzene Content	No data available
Lead content	No data available
VOC (Volatile organic compounds)	No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

	No data available.
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10.2. Chemical stability

	Stable.
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10.3. Possibility of hazardous reactions

	No data available.
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10.4. Conditions to avoid

	Moisture.
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10.5. Incompatible materials

	Reducing agents.
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10.6. Hazardous decomposition products

	No data available.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

	Prolonged or repeated exposure may cause: Fatigue, cardiac irregularities, convulsions, vomiting. Ingestions may result in burning pain in mouth, throat, stomach.
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11.1.4. Toxicological Information

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11.1.4. Toxicological Information

Cobalt (II,III) Oxide	Inhalation Rat LC50/4 h: 4830ppm Oral Rat LD50: 5000mg/kg	Dermal Rat LD50: 2000mg/kg
Silver	Oral Rat LD50: 2000mg/kg	

SECTION 12: Ecological information

12.1. Toxicity

Cobalt (II,III) Oxide	Daphnia EC50/48h: 136 mg/l Fish LC50/96h: 136 mg/l	Algae IC50/72h: 88 mg/l
Silver	Daphnia LC50/48h: 0.00022mg/l	

12.2. Persistence and degradability

	No data available.
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12.3. Bioaccumulative potential

	No data available.
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12.4. Mobility in soil

	No data available.
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12.5. Results of PBT and vPvB assessment

	No data available.
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12.6. Other adverse effects

	Harmful to aquatic organisms.
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SECTION 13: Disposal considerations

General information

	Dispose of in compliance with all local and national regulations. Contact a licensed waste disposal company.
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SECTION 14: Transport information

14.6. Special precautions for user

	Refer to sections 1.2, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12 & 13.
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14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

	Not determined.
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ADR/RID

	The product is not classified as dangerous for carriage.
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IMDG

	The product is not classified as dangerous for carriage.
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IATA

	The product is not classified as dangerous for carriage.
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Further information

	The product is not classified as dangerous for carriage.
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SECTION 15: Regulatory information

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

Regulations	COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.
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15.2. Chemical safety assessment

	A chemical safety assessment has not been carried out.
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SECTION 16: Other information

Other information

Revision	This document differs from the previous version in the following areas:. 11 - 11.1. Information on toxicological effects. 14 - 14.6. Special precautions for user. 14 - 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code. 15 - 15.2. Chemical safety assessment.
Text of risk phrases in Section 3	R40 - Limited evidence of a carcinogenic effect. R43 - May cause sensitisation by skin contact. R49 - May cause cancer by inhalation.

Further information

	The information supplied in this Safety Data Sheet is designed only as guidance for the safe use, storage and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made to its accuracy. This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process.
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