

Bath Potters' Supplies

MATERIAL SAFETY DATA SHEET

1. Identification of the preparation/Supplier reference

Trade Name Cobalt Oxide
Chemical name As above
Synonyms Cobalto-cobaltic oxide, but the product is really a mixture
Supplier Bath Potters Supplies, Unit 18, Fourth Avenue, Westfield Trading Estate,
Radstock, Nr. Bath. BA3 4XE
Emergency numbers Tel: 01761 411077
Fax: 01761 414115
Internet: coshh@bathpotters.demon.co.uk

2. Composition

Components.	CAS	EINECS	% of composition
Cobalt oxide Co ₃ O ₄	1308-06-1	2151572	>95%
Cobalt oxide CoO	1307-96-6	2151546	<5%
Nickle oxide NiO	1313-99-1	2152157	<0.9%

The nickel oxide impurity significantly affects the hazard classification

3. Health Hazard Identification

Inhalation Excessive and repeated inhalation of the product dust may cause the symptoms of chronic lung disease.
Ingestion Product can be regarded as low toxicity material and is likely to be of low solubility in body fluids.
Eyes May give cause physical irritation and inflammation.
Skin Some cobalt compounds have been shown to cause dermatitis and sensitisation.

4. First Aid Measures

Inhalation Remove patient to fresh air, provide rest, loosen tight clothing and, if any adverse reaction occurs, seek medical attention.
Ingestion Do not induce vomiting. Rinse mouth with water and give 200-300ml (half a pint) of water or milk to drink (provide patient is conscious). Seek medical advice.
Eyes Wash immediately with copious amounts of water for 15 minutes, paying particular attention to under the eyelid, and seek medical attention if discomfort persists.
Skin Remove contaminated clothing. Wash affected areas with soap and water, and if any adverse reaction occurs seek medical advice.

5. Fire Fighting Measures

Extinguishing Media Suitable for surrounding fire conditions.
The product is not explosive or flammable. Standard fire fighting techniques only are required, i.e. water, carbon dioxide, dry powder, sand and chemical foam extinguishers.
Special Exposure hazard In the event of a fire the product may emit harmful or toxic fumes
Protective equipment Self contained breathing apparatus.

6. Accidental Release Measures

Leaks & Spills Small amounts may be washed into drains with plenty of water, but observe local effluent control limits. Remove dry materials either by a vacuum cleaner fitted with an efficient particulate filter, or by damping down and scooping in to a receptacle prior to disposal.
Protective equipment Local exhaust ventilation is recommended to comply with occupational exposure limits (refer to Guidance Note EH40 - latest edition), personal respiratory protection should be

used if local exhaust is not available.

7. Handling & Storage

Handling	Do not eat, drink, or smoke in areas where the material is used. Wash thoroughly after handling the material and avoid contact with skin and eyes. Local exhaust ventilation is recommended to comply with occupational exposure limits (refer to Guidance Note EH40 - latest edition), to avoid spreading and inhalation dust in use.
Storage	Store in a secure container in normal dry conditions at room temperature, and away from direct sunlight.

8. Exposure Control/Personal protective Equipment

Engineering controls	Adequate ventilation should be provided so that Occupational Exposure Limits are not exceeded. Local Exhaust Ventilation is normally recommended and preferable to personal protection (refer to Guidance Note EH40 - latest edition).
Personal protective equipment	Where local exhaust is unavailable, H.S.E. - approved personal respiratory protection should be used. Suitable impervious gloves and overalls should be used, along with safety goggles if contact with eyes is otherwise possible

9. Physical & Chemical properties

Appearance & Odour	Black odourless powder.
Flash point (°C)	Not applicable
Flammability	Not applicable
Explosive properties	Non-explosive
Oxidising properties	Non-oxidising
Specific gravity	6.1
pH value	7 (insoluble in water)
Melting point (°C)	About 1800°C. Decomposition of Co_3O_4 to CoO at 900 - 950°C

10. Stability & Reactivity

Chemical stability	The material is stable under normal conditions and insoluble in water
Conditions/materials to avoid	Soluble in acids
Hazardous decomposition products	None known
Hazardous polymerisation products	None known.

11. Toxicology Information

Acute toxicology	LD ₅₀ Oral >1700mg/kg LD ₅₀ Dermal Not known LD ₅₀ Inhalation Not known
Health effects	Prolonged or repeated exposure above Occupational Exposure Standards may cause Aggravation of asthma, sensitisation, cancer, blood disorders and damage to the heart, thyroid and pancreas.

12. Ecological information

Ecotoxicity	Not known
Persistence	No specific test data available.

13. Disposal

Dispose in accordance with current waste Disposal regulations (for UK - Control of Pollution (Special Waste) Regulations 1996). Landfill is the most appropriate method

14. Transport Information

UN/SI No.		Not classified
UN Class		Not classified
Packing group		Not classified
Road	UK	Not classified
	ADR	Not classified
Sea	IMO	Not classified
Air	ICAO	Not classified

15. Regulatory information

EC Supply Labelling	Toxic
R-Phrases	R20/22 Harmful by inhalation and if swallowed R43 May cause sensitisation by skin contact R49 May cause cancer by inhalation
S-Phrases	S13 Keep away from food, drink and animal feeding stuffs. S20/21 When using do not eat, drink or smoke S22/23 Do not breathe dust or spray S24 Avoid contact with skin S36/37 Wear suitable protective clothing and gloves S38 In case of insufficient ventilation wear suitable respiratory equipment. S45 In case of accident or if you feel unwell, seek medical advice immediately S53 Avoid exposure – obtain special instructions before use

UK Occupational exposures limits*	Mg/m ³ 8 hr TWA	% in product
Cobalt compounds (Co ₃ O ₄)	0.10	95%
Cobalt oxide (CoO)	0.10	5%
Nickle oxide NiO	1.0	0.9%

* Refer to HSE Guidance note EH40

In accordance with the H.S.E. Approved Code of Practice for CHIP, the recipient is reminded of their obligations under both the Health and Safety at Work Act (HSWA) and the Control of Substances Hazardous to Health Regulations (COSHH), and that the information in any safety data sheet does not constitute the user's assessment of workplace risk.

16. Other information

General industrial hygiene practices are recommended when handling and using this product.

COSHH ACOP:	H.S.C. Approved Code of Practice for the Control of Substances Hazardous to Health Regulations 1994.
CHIP 96:	Chemicals (Hazard Information and Packaging for Supply) Regulations 1996.
CHIP SDS ACOP:	H.S.C. Approved Code of Practice for Safety Data Sheets in accordance with regulation 6 of the CHIP regulations.
HSE EH40:	HSE Guidance note EH40 on Occupational Exposure Limits, to be used in conjunction with the COSHH regulations.

The information contained in this safety data sheet has been prepared using the best available information. However, in view of technical developments this may alter.

The material must only be used for its stated purpose and the information contained within this data sheet is offered solely for use in the evaluation of this product in respect of safety, health and environmental hazards.

Due to the many factors outside our control when using this product we cannot accept liability for any injury, accident, loss or damage caused through its use.

August 2000-08-11