

Bath Potters' Supplies

MATERIAL SAFETY DATA SHEET

1. Identification of the preparation/Supplier reference

Trade Name **Manganese Dioxide**
Chemical name MnO₂, manganese (IV) oxide
Synonyms Pyrolusite
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
Manganese (IV) Oxide	01313-13-9	215-202-6	75% (by weight)
Oxides of Iron, Silicon, & Aluminium			typically 10% (by weight) each component

3. Health Hazard Identification

Inhalation Excessive inhalation may give rise to temporary irritation of the respiratory tract. Harmful through prolonged exposure, long term exposure to manganese compounds may reduce fertility in men.
Ingestion Harmful if ingested, long term exposure to manganese compounds may reduce fertility in men.
Eyes Will cause physical irritation and inflammation
Skin Not a primary irritant, but persistent contact may cause sensitisation by abrasion

4. First Aid Measures

Inhalation Remove patient to fresh air, loosen tight clothing and seek medical attention.
Ingestion Do not induce vomiting, give plenty of water to drink and seek medical advice.
Eyes Wash immediately with copious amounts of water for 15 minutes and seek medical attention.
Skin Wash affected areas with soap and water, if any adverse reaction occurs obtain medical advice

5. Fire Fighting Measures

Extinguishing Media Suitable for surrounding fire conditions.
The product is not explosive or flammable but is a relatively weak oxidising agent, which if involved in a fire will decompose at approximately 530°C with the evolution of oxygen causing the fire to burn more fiercely. Standard fire fighting techniques only are required, i.e. water spray or chemical foam extinguishers to control. Not jets.
Special Exposure hazard Suitable for surrounding fire conditions.
Protective equipment Suitable for surrounding fire conditions.

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.
Protective equipment None required

7. Handling & Storage

Handling Do not eat, drink, or smoke in areas where the material is used. Wash thoroughly after handling the material. Local exhaust ventilation is recommended to comply with occupational exposure limits

Storage (refer to Guidance Note EH40 - latest edition)
Store in dry area. Keep away from chlorates, peroxides and easily oxidised matter with which it can react, presenting a potential hazard.

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.

Personal protective equipment Where necessary suitable personal protection should be used: mask, goggles and overalls. If prolonged contact with hands is likely, use impervious gloves.

9. Physical & Chemical properties

Appearance & Odour Black odourless powder.
Flash point (°C) Not applicable
Flammability Not applicable
Explosive properties Not applicable
Oxidising properties Possible with chlorates, peroxides and easily oxidised matter
Specific gravity 5.02
pH value Not Known
Melting point (°C) Decomposition at approx 535°C to oxide Mn₂O₃, oxygen evolved.

10. Stability & Reactivity

Chemical stability The material is stable under normal conditions and insoluble in water.
Conditions/materials to avoid Can react with chlorates, peroxides and easily oxidised matter.
Hazardous decomposition products None known.
Hazardous polymerisation products None.

11. Toxicology Information

Acute toxicology LD₅₀ Oral >3478 mg/kg
LD₅₀ Dermal Not known
LD₅₀ Inhalation Not known

Health effects Manganese Dioxide poisoning is a notifiable industrial disease affecting the central nervous system, its' occurrence is extremely rare and is thought to arise after ingestion of substantial quantities over a prolonged period. Prolonged or repeated exposure to manganese compounds above Occupational Exposure Standards may reduce fertility in men.

12. Ecological information

Ecotoxicity Not known
Persistence Chemically stable and will persist in the environment.

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. Minor amounts may be washed to trade effluent drains provided effluent control conditions are complied with.

14. Transport Information

UN/SI No. Not restricted
UN Class Not restricted
Packing group Not restricted
Road UK Not restricted

	ADR	Not restricted
Sea	IMO	Not restricted
Air	ICAO	Not restricted

15. Regulatory information

EC Supply Labelling	Harmful X_n	
R-Phrases	R20 Harmful by inhalation	
	R22 Harmful if swallowed	
S-Phrases	Optional safety phrases;	
	S20/21 When using do not eat, drink or smoke	
	S22/23 Do not breathe dust or spray	
	S25 Avoid contact with eyes	
UK Occupational exposures limits*	Mg/m ³ 8 hr TWA	% in product
Manganese (IV) Oxide	5	75%

* 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.

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