

Section 1. Identification**1.1 Product Identifier**

CHE2478

Product Name

MANGANESE DIOXIDE POWDER 1Kg.

CAS Number

1313-13-9

REACH Registration No

A registration number is not available as the substance or its uses are exempt, the annual tonnage does not require a registration or the registration is envisaged for a later date.

Molecular Formula

 MnO_2 =86.94**1.2 Relevant identified uses of the substance or mixture & uses advised against**

Uses of Material

Chemical for industrial and laboratory use. Not suitable for domestic use.

1.3 Supplier

Scientific Laboratory Supplies

Unit 6, Foresters Avenue
Fairham Business Park
Fairham
Nottingham
NG11 2AF
UNITED KINGDOM

Phone

0115 9821111

Fax

0115 9825275

Email

sales@scientific-labs.com

1.4 Emergency Telephone(08:00-17:00) 0115 9821111
(24hr) 112
(Have this document to hand)**Section 2. Hazards Identification****2.1 Classification of the substance or mixture****Classification according to regulation 1272/2008/EC**

Acute toxicity, category 4 (oral)

H302: Harmful if swallowed.

Acute toxicity, category 4 (inhalation)

H332: Harmful if inhaled.

Spec target organ tox - repeat, category 2

H373: May cause damage to organs through prolonged or repeated exposure.

2.2 Label elements**Labelling according to regulation 1272/2008/EC**

Signal word

Warning

Hazard Pictograms



Hazard Statements Harmful if inhaled. Harmful if swallowed. May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements Do not breathe dust. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

Section 3. Composition

3.1 Substances

| Component | CAS No. | EEC No. | REACH No. | Conc w/w | CLP Classification (1272/2008/CE) |
|-------------------|-----------|-----------|-----------|----------|---|
| Manganese Dioxide | 1313-13-9 | 215-202-6 | | <100% | Acute Tox. 4 (O), Acute Tox. 4 (I), STOT RE 2 |

Section 4. First Aid

4.1 Description of first aid measures

| | |
|--------------------------------------|--|
| Eyes | Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. If discomfort persists OBTAIN MEDICAL ATTENTION. |
| Skin | Thoroughly wash off skin with soap and water. Remove contaminated clothing immediately and wash before re-use. |
| Inhalation | Remove from exposure. |
| Ingestion | Wash out the patients mouth thoroughly with water. In severe cases or if exposure has been great, OBTAIN MEDICAL ATTENTION. |
| Personal protection for first aiders | Wear protective gloves / eye protection. |

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

No further relevant information available.

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

No further relevant information available.

Section 5. Fire Fighting

5.1 Extinguishing media

| | |
|---------------------|--|
| Extinguishing Media | Consider what other flammable materials are present and act accordingly. |
| Unsuitable Media | Nothing specified. |

5.2 Special hazards arising from the substance or mixture

| | |
|---------|--|
| Hazards | Not combustible but assists burning. May evolve toxic fumes if involved in a fire. |
|---------|--|

5.3 Advice for firefighters

| | |
|-------------------------|--|
| Advice for firefighters | Evacuate area immediately. Keep up wind. Avoid exposure to toxic vapours and fumes. Fire-fighters should wear protective clothing and breathing apparatus. |
|-------------------------|--|

Section 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

| | |
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| Personal Protection | Avoid breathing dust-wear respiratory protective equipment. Do not allow other people to enter area. |
|---------------------|--|

6.2 Environmental precautions

| | |
|---------------|--|
| Environmental | Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs. |
|---------------|--|

6.3 Methods and material for containment and cleaning up

| | |
|----------------|--|
| Major Spillage | Vacuum up into container for removal. Carefully remove material from vacuum cleaner and transfer to sealable container for disposal. Carry out this operation under fume extraction. |
| Minor Spillage | Vacuum up into container for removal. Carefully remove material from vacuum cleaner and transfer to sealable container for disposal. Carry out this operation under fume extraction. |

6.4 Reference to other sections

See section 8.2 for information on protective equipment and section 13 for information on disposal.

Section 7. Storage & Handling

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Do not breath dust. Do not allow to contaminate clothing.

Ensure Local Exhaust Ventilation maintains dust concentrations below the recommended limits.

7.2 Conditions for safe storage, including any incompatibilities

Store in a suitable area for oxidising agents.

7.3 Specific end use(s)

See section 1.2.

Section 8. Workplace Exposure & Personal Protection

8.1 Control parameters

| Component | CAS No | Concentration | Workplace Exposure Limits | | | |
|-------------------|-----------|---------------|---------------------------|---|-------------------------|---|
| | | | Long Term (8hr TWA) | | Short Term 15min period | |
| Manganese Dioxide | 1313-13-9 | <100% | - | - | 0.5 ppm | - |

Exposure data source(s) IOELV: Indicative Occupational Exposure Limit Value.

8.2 Exposure controls

| | |
|------------------------|--|
| Respiratory Protection | If process creates significant amounts of dust use L.E.V. or wear suitable dust mask. |
| Hand Protection | Wear gloves. |
| Eye Protection | Use tightly fitting chemical splash proof glasses or goggles. |
| Skin Protection | Avoid contact with skin. If skin contact or contamination of clothing is likely, protective clothing must be worn. |
| Special Hazards | No special precautions required. |

Section 9. Physical & Chemical Properties

9.1 Information on basic physical and chemical properties

| | |
|-----------------------|---------------------------|
| Appearance | Dark brown powder. |
| Odour | No specific odour. |
| pH | Not applicable |
| Boiling Point | Not available |
| Melting Point | 535 °C |
| Flash Point | Not applicable |
| Upper Flammable Limit | Not applicable |
| Lower Flammable Limit | Not applicable |
| Auto Ignition | Not applicable |
| Explosive Properties | No. |
| Oxidising Properties | A strong oxidising agent. |
| Vapour Pressure | Not applicable |
| Relative Density | 5.2100 |
| Water Solubility | Insoluble in water. |

9.2 Other information

No data available.

Section 10. Stability & Reactivity

| | | |
|-------------|------------------------------------|---|
| 10.1 | Reactivity | No data available. |
| 10.2 | Chemical Stability | Stable under normal conditions |
| 10.3 | Possibility of hazardous reactions | No data available. |
| 10.4 | Conditions to Avoid | No specific conditions. |
| 10.5 | Incompatible Materials | Reacts with hydrochloric acid liberating toxic chlorine gas. A strong oxidiser, avoid heating or friction with organic matter or other easily oxidisable substances eg. sulphur, sulphide, phosphide or hypophosphites. |
| 10.6 | Hazardous Decomposition Products | May produce hazardous fumes if involved in a fire. |

Section 11. Toxicological Information

11.1 Information on toxicological effects

| | |
|----------------------|---|
| Eyes | Presents no significant health hazard to the eyes. |
| Skin | Presents no significant hazard by skin contact. |
| LD50 Skin | Not available |
| Ingestion | Ingestion will cause similar effects to dust inhalation. |
| LD50 Oral | >3480 mg/Kg Rat |
| Inhalation | Prolonged exposure to dust or fume concentrations above the occupational exposure limits may lead to pronounced dizziness, nausea, loss of appetite and co-ordination. Absorbed manganese accumulates in the blood until a threshold value is exceeded after which further absorption leads to deposition in body organs. Chronic poisoning is difficult to diagnose but symptoms are weight and appetite loss, headaches, dizziness, somnolence indifference and apathy. |
| LD50 Inhalation | Not available |
| TCLo | Not available |
| Carcinogenicity | Not considered to be a carcinogen. |
| Mutagenicity | Not considered to be a mutagen. |
| Reproductive Effects | None identified. |

Section 12. Ecological

| | | |
|-------------|----------------------------------|-----------------------------------|
| 12.1 | Toxicity | No specific environmental hazard. |
| | LC50 Algal | Not available |
| | LC50 Crustacea | Not available |
| | LC50 Fish | Not available |
| 12.2 | Persistence and degradability | No data available. |
| 12.3 | Bioaccumulative potential | No data available. |
| 12.4 | Mobility in soil | No data available. |
| 12.5 | Results of PBT & vPvB assessment | Assessment not required. |
| 12.6 | Other adverse effects | None known at present. |

Section 13. Disposal Considerations

13.1 Waste treatment methods

| | |
|------------------------|--|
| Disposal Methods | Dispose of to a licensed land fill site. |
| Contaminated Packaging | Use a licensed waste disposer. |

Section 14. Transport Information

| | |
|--|----------------------------------|
| 14.1 UN Number | Non-restricted |
| 14.2 Proper Shipping Name | Non-restricted |
| 14.3 Transport classes | |
| UN classification | None |
| Subsidiary hazard(s) | None |
| Transport category | None |
| ADR Hazard ID | Non-restricted |
| Tunnel Restriction Code | Non-restricted |
| 14.4 Packing Group | None |
| 14.5 Environment hazards | See section 12. |
| 14.6 Special precautions for user | No special precautions required. |
| 14.7 Transport in bulk | Not transported in bulk. |

Section 15. Regulatory Information

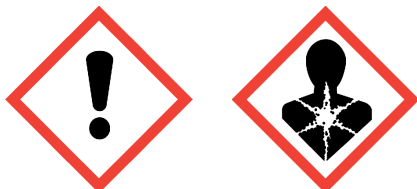
15.1 Safety, health and environment regulations specific for substance/mixture.

Classification, Labeling & Packaging of Substances & Mixtures Regulations (1272/2008/CE)

Classification Acute toxicity, category 4 (oral); Acute toxicity, category 4 (inhalation); Spec target organ tox - repeat, category 2

Signal word Warning

Hazard Pictograms



Hazard Statements H332, H302, H373
Harmful if inhaled. Harmful if swallowed. May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements P260, P271, P264, P270, P301+P312, P330
Do not breathe dust. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

15.2 Chemical safety assessment

Assessment not required.

Section 16. Other Information

The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment. See sections 11 for toxicological information and section 12 for ecological information.

Revision number: 2.1 (Supercedes revision 2.0)

Revision date: 16 April 2021

Reviewed by chemist: 16 April 2021

Printed date: 16 September 2024

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