SLS Select Education - Safety Data Sheet CHE2480SE

(in accordance with regulation (EU) 2015/830 and regulation (EC) 1272/2008)

Revision: 2.1 | Revision date: 16 April 2021
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Section 1. Identification

1.1 Product Identifier CHE2480SE

Product Name MANGANESE DIOXIDE POWDER 250g.

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 Relevent identified uses of the substance or mixure & uses advised against

Uses of Material Chemical for industrial and laboratory use. Not suitable for domestic use.

1.3 Supplier SLS Select Education

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

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

6.2 Environmental precautions

Enviromental	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	Incompatable 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 absorbtion 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 subtance/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.

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