



## Safety Data Sheet

Date of Issue: 01.07.2020

Date of Expiry: 01.07.2025

### 1: IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Company Name** : ECP Limited  
**Address** : PO Box 34125, Birkenhead, Auckland 0746  
**Telephone** : +64 9 480 4386  
**Facsimile** : +64 9 480 4385  
**Emergency phone number** : 0800 243 622 (24 hours)

Product Name	Manganese Dioxide			Product Code	31308
CAS	HSNO	UN	DG Class/es	Packing group	Tracking
1313-13-9	HSR003741	-	-	-	6.1B

**Recommended use** : Laboratory Investigations

## 2: Hazard's identification

### 2.1 GHS Classification

Acute toxicity, Oral (Category E)  
Acute toxicity, Inhalation (Category D)

### 2.2 GHS Label elements, including precautionary statements

#### Hazard Pictogram



Signal word **Warning**

#### Hazard statement(s)

H303 May be harmful if swallowed.  
H332 Harmful if inhaled.8

#### Precautionary statement(s)

##### Prevention

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P271 Use only outdoors or in a well-ventilated area.

##### Response

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P312 Call a POISON CENTER/doctor if you feel unwell.

## 3: Composition/information on ingredients

Substance/mixture: substance

### 3.1 Substances

#### Hazardous components

Component	Classification	Concentration
Manganese dioxide	6.1 E; 6.1 D; H303, H332	<= 100 %

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## 4: First aid measures

### 4.1 Description of first aid measures

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

#### In case of eye contact

Flush eyes with water as a precaution.

#### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

Men exposed to manganese dusts showed a decrease in fertility. Chronic manganese poisoning primarily involves the central nervous system. Early symptoms include languor, sleepiness, and weakness in the legs. A stolid mask-like appearance of the face, emotional disturbances such as uncontrollable laughter and a spastic gait with tendency to fall in walking are findings in more advanced cases. High incidence of pneumonia has been found in workers exposed to the dust or fume of some manganese compounds.

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## 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

### 5.2 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

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## 6: Accidental release measures

### 6.1 Personal precautions, protective equipment, and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

### 6.2 Environmental precautions

Do not let product enter drains.

### 6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

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## 7: Handling and storage

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

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## 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits Table

Component	CAS No.	Value	Control parameters	Basis
Manganese dioxide	1313-13-9	WES-TWA	1 mg/m <sup>3</sup>	New Zealand. Workplace Exposure Standards for Atmospheric Contaminants

### 8.2 Exposure controls

#### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### Personal protective equipment

##### *Eye/face protection*

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards.

##### *Skin protection*

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

##### *Full contact*

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

##### *Splash contact*

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

##### *Body Protection*

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

##### *Respiratory protection*

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type or respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

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## 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- |                                 |                               |
|---------------------------------|-------------------------------|
| a) Appearance                   | Form: powder<br>Colour: black |
| b) Odour                        | odourless                     |
| c) Odour Threshold              | No data available             |
| d) pH                           | No data available             |
| e) Melting point/freezing point | Melting point/range: 535 °C   |

f) Initial boiling point and boiling range	Not applicable
g) Flash point	does not flash
h) Evaporation rate	No data available
i) Flammability (solid, gas)	does not ignite - Flammability (solids)
j) Upper/lower flammability or - explosive limits	No data available
k) Vapour pressure	No data available
l) Vapour density	No data available
m) Relative density	5.21 g/cm <sup>3</sup> at 21 °C 5.28 g/cm <sup>3</sup> at 20 °C
n) Water solubility	0.001 g/l at 20 °C - OECD Test Guideline 105
o) Partition coefficient: n-octanol/water	Not applicable
p) Auto-ignition temperature	No data available
q) Decomposition temperature	ca. 535 °C -
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	The product has been shown not to be oxidizing in a test following Directive 67/548/EEC (Method A17, Oxidizing properties).

## 9.2 Other safety information

Bulk density ca. 600 - 800 kg/m<sup>3</sup>

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## 10: Stability and reactivity

### 10.1 Incompatible materials

Strong acids, strong reducing agents, organic materials.

### 10.2 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions:  
Manganese/manganese oxides.

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## 11: Toxicological information

### 11.1 Information on toxicological effects

#### Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.  
Potential health effects

#### Inhalation

Harmful if inhaled. May cause respiratory tract irritation.

#### Ingestion

Harmful if swallowed.

#### Skin

May be harmful if absorbed through skin. May cause skin irritation.

#### Eyes

May cause eye irritation.

### Signs and Symptoms of Exposure

Men exposed to manganese dusts showed a decrease in fertility. Chronic manganese poisoning primarily involves the central nervous system. Early symptoms include languor, sleepiness, and weakness in the legs. A stolid mask-like appearance of the face, emotional disturbances such as uncontrollable laughter and a spastic gait with tendency to fall in walking are findings in more advanced cases. High incidence of pneumonia has been found in workers exposed to the dust or fume of some manganese compounds.

## Additional Information

RTECS: OP0350000

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## 12: Disposal considerations

### 12.1 Waste treatment methods

#### Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

#### Contaminated packaging

Dispose of as unused product.

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## 14: Transport Information Table

		ADR/RID – European packaging certification	IMDG International Maritime Dangerous Goods Code	IATA – DGR International Air Travel Association – Dangerous Goods Regulations
14.1	UN Number	-	-	-
14.2	UN Proper Shipping name	Not dangerous goods	Not dangerous goods	Not dangerous goods
14.3	Transport Hazard Class	-	-	-
14.4	Packaging group	-	-	-
14.5	Environmental Hazards	No	No	No
14.6	Special precautions for user	None		

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## 15: Regulatory information

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

#### National regulatory information

HSNO Group Standard Approval: HSR002596 - Laboratory Chemicals and Reagent Kits Group Standard 2006

Tracking Required: 6.1B

Approved Handler Cert.: Not required

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## 16: Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to

such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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