



ABN: 81 008 668 371

MATERIAL SAFETY DATA SHEET

StrataSol[®] Zinc Manganese

Section 1 – Identification of the Material and Supplier

Product Name

StrataSol[®] Zinc Manganese

Other names

CSBP StrataSol[®] Zinc Manganese , Zinc Manganese Suspension Concentrate, Liquid Zinc Manganese, CSBP Product Code AR1

Recommended use

Agricultural Applications, Trace Elements

Company name

CSBP Limited

Address

Kwinana Beach Road, KWINANA

State

Western Australia

Postcode

6167

Telephone number

(08) 9411 8777 (Australia), +61 8 9411 8777 (Overseas)

Emergency telephone number

1800 093 333 (Australia), +61 8 9411 8444

Section 2 – Hazard Identification

Hazard Classification, including a statement of overall hazardous nature

HAZARDOUS SUBSTANCE.

StrataSol[®] Zinc Manganese is not classified as hazardous according to ASCC criteria.

DANGEROUS GOODS.

StrataSol[®] Zinc Manganese is not classified as a dangerous good according to the ADG Code.

Section 3 – Composition/Information on Ingredients

Chemical identity of ingredients

Zinc Oxide (Zn-O)

Manganese Carbonate (C-O3-Mn)

Non Hazardous Ingredients

Proportion of ingredients

21 % (wt/wt)

38 % (wt/wt)

Remainder

CAS Number for ingredients

1314-13-2

598-62-9

Not Available

Section 4 – First Aid Measures

First Aid Facilities

Eye wash facilities should be available.

FIRST AID PROCEDURES FOR DEALING WITH THIS PRODUCT AND EXPOSURE TO IT

1. Swallowed

Do not induce vomiting. For advice, contact a Poisons Information Centre on (08) 13 1126 (Australia only) or a doctor (at once).

2. Eyes

Flush gently with running water for at least 15 minutes lifting lower and upper eyelids occasionally. Seek medical attention if irritation develops.

3. Skin

Remove contaminated clothing and gently flush affected areas with water. Seek medical attention if irritation develops. Launder clothing before reuse.

4. Inhalation

If over exposure occurs leave exposure area immediately. If irritation persists, seek medical attention.

ADVICE TO DOCTOR.

Treat symptomatically.



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Section 5 – Fire Fighting Measures

Product flammability

Non flammable. No fire or explosion hazard exists. May evolve toxic fumes when heated to decomposition.

Suitable extinguishing media

Non flammable. Prevent contamination of drains or waterways, absorb runoff with sand or similar.

Hazard from combustion products

Non flammable. If product is present in a fire, toxic gases may be evolved. Evacuate area and contact emergency services. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.

Hazchem Code

None allocated.

Section 6 – Accidental Release Measures

Methods and Materials for containment and clean up

If spilt, absorb with sand or similar. Wear splash-proof goggles, PVC/rubber gloves, coveralls and rubber boots. Collect and place in sealable containers for disposal. Caution: Spill site may be slippery.

Section 7 – Handling and Storage

Precautions for safe handling

Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

Conditions for safe storage, including any incompatibilities

Store in cool, dry, well ventilated area, removed from acids (e.g. hydrochloric acid), active metals (eg. magnesium) and foodstuffs. Ensure containers are adequately labeled, protected from physical damage and sealed when not in use. Check regularly for spills. Also store removed from oxidising agents and combustible materials.

Section 8 – Exposure Controls/Personal Protection

National exposure standards

	ES-TWA	ES-STEL	ES-Peak
Zinc Oxide (1314-13-2) - dust	10 mg/m ³	No data available	No data available
Manganese Carbonate (598-62-9) - dust	1 mg/m ³	No data available	No data available

Engineering controls

Use in well ventilated areas. Maintain vapour levels below the recommended exposure standard.

Personal protective equipment

Wear splash-proof goggles and rubber or PVC gloves. Where an inhalation risk exists, wear a Type B (Inorganic gases and vapours) Respirator. When using large quantities or where heavy contamination is likely, wear coveralls.



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Section 9 – Physical and Chemical Properties

Appearance (colour, physical form, shape)

Beige coloured liquid.

Odour

Slight odour.

pH

7.5 - 8.5

Vapour pressure

Not available.

Vapour density

Not available.

Boiling point/range

> 100°C

Freezing/melting point

Not available.

Evaporation rate

Not available.

Solubility

Not available.

Specific gravity

1.78 – 1.82

% Volatiles

Not available.

Flammability

Not Flammable.

Flash point and method of detecting flash point

Not relevant.

Upper and lower flammable (explosive) limits in air

Not relevant.

Ignition temperature

Not available.

Section 10 – Stability and Reactivity

Reactivity

Incompatible with active metals (e.g. magnesium) if heated and with acids (e.g. hydrochloric acid). Also incompatible with oxidising agents (e.g. Hypochlorite) and combustible materials.

Decomposition products

May evolve toxic fumes when heated to decomposition.



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Section 11 – Toxicological Information

HEALTH EFFECTS

Low to moderate toxicity. This product may only present a hazard with direct eye contact, prolonged and repeated skin contact or continual mist inhalation. Chronic over exposure to manganese compounds at high levels may result in manganese poisoning (manganism), with central nervous system damage. However, due to product form (liquid) and when handled in small quantities, the potential for over exposure and adverse health effects are reduced.

Inhalation:

Low to moderate irritant. Over exposure may result in mucous membrane irritation of the nose and throat and coughing, dizziness and headache.

Skin:

Irritant. Prolonged contact may result in irritation, itching and possible skin rash.

Eye:

Irritant. Contact may result in lacrimation, irritation, pain, redness and conjunctivitis. Prolonged contact - corneal burns and possible permanent damage.

Swallowed:

Low to moderate toxicity. Ingestion may result in headache, nausea, vomiting, gastrointestinal irritation and diarrhoea.

TOXICITY DATA

Zinc Oxide (1314-13-2)	LC50 (Inhalation):	2500 mg/ m ³ (mouse)
	LD50 (Ingestion):	7950 mg/ kg (mouse)
	LD50 (Intraperitoneal):	240 mg/ kg (rat)
	LDLo (Ingestion):	500 mg/ kg (human)
	TCLo (Inhalation):	600 mg/ m ³ (human)

Manganese Carbonate (598-62-9) No LD50 data available for this product

Section 12 – Ecological Information

Environment

Manganese may exist in the environment as the more soluble (2+) form and/or the less soluble (3+) form. In acidic waters, high levels of dissolved manganese may occur. Occurs naturally (0.085% of earth's crust).

Section 13 – Disposal Considerations

Disposal methods and containers

Ensure product is covered with moist soil to prevent dust generation and dispose of to approved Council landfill. Contact the manufacturer if additional information is required.

Legislation

Dispose of in accordance with relevant local legislation.



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Section 14 – Transport Information

UN Number

None allocated.

UN Proper shipping name

None allocated.

Class and subsidiary risk

None allocated.

Packing group

None allocated.

EPG

None allocated.

Hazchem code

None allocated.

Section 15 – Regulatory Information

Australian regulatory information

A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).

All chemicals listed on the Australian Inventory of Chemical Substances (AICS).

Section 16 – Other Information

Key / legend to abbreviations and acronyms used in the MSDS

NOHSC	National Occupational Health and Safety Commission
SUSDP	Standard for the Uniform Scheduling of Drugs and Poisons
ES-TWA	Exposure Standard – Time weighted average
ES-STEL	Exposure Standard – Short term exposure level
ES-Peak	Exposure Standard – Peak level
LC ₅₀	Lethal concentration 50, median lethal concentration
LD ₅₀	Lethal dose 50. The single dose of a substance that causes the death of 50% of an animal population from exposure to the substance by any route other than inhalation
%(^w / _w)	Percent amount on a weight per weight basis
mg/m ³	Milligrams per cubic metre
mg/kg	Milligrams per kilogram
pH	relates to hydrogen ion concentration - this value will relate to a scale of 0 - 14, where 0 is highly acidic and 14 is highly alkaline

Important Notes

1. To the best of our knowledge this document complies with the National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [NOHSC:2011 (2003)].
2. This material safety data sheet summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this material safety data sheet and consider the information in the context of how the product will be handled and used in the workplace, including in conjunction with other products.
3. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact the Safety and Emergency Services Department, CSBP Limited on (08) 9411 8777 (Australia), +61 8 9411 8777 (Overseas).
4. Our responsibility for products sold, is subject to our terms and conditions, a copy of which is sent to our customers, and is also available on request.
5. CSBP reserves the right to make change to material safety data sheets without notice.