SAFETY DATA SHEET (SDS)
MANGANESE SULFATE 31% Powder

SECTION 1 – IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

Manufacturer & Supplier: **Chemurgic Agricultural Chemicals, Inc**

Address: PO Box 2106
Turlock, CA 95381

Tel: + 209-634-2951
Fax: + 209-667-1860

Web Site: www.Chemurgic.net

Emergency Contact: INFOTRAC: (800) 535-5053
EPA National Response: (800) 424-8804

Product Name: Manganese Sulfate Monohydrate:
MnSo4.H20

Formula: Synonyms: Manganese Sulphate, Manganous Sulphate

Primary Use: Mineral nutrient additive for the feed industry.

SECTION 2 - HAZARDS IDENTIFICATION

Classification according to Regulation (EC) 1272/2008 (GHS-CLP)

According to Regulation (EC) No1272/2008
Specific target organ toxicity - repeated exposure (Category 2)
Chronic aquatic toxicity (Category 2)
According to European Directive 67/548/EEC as amended.
Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

GHS Pictogram:

Signal Word: **Warning**

Hazard Statements:

H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

Precautionary Statements:

P273	Avoid release to the environment.
P501	Dispose of contents/container in accordance with local/regional/national/international regulation.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Formula:	MnSo4. H20
Molecular Weight::	169.02 g/mol
Appearance & Odour:	Solid granular powder(fine), white to pink in colour.
CAS-No	10034-96-5
EC-No.	232-089-9
Index-No.	025-003-00-4
Classification	STOT RE 2; Aquatic Chronic2; H373, H411

SECTION 4 - FIRST AID MEASURES

Effects and symptoms: Chills, fever, nausea, vomiting, coughing, weakness and headaches, skin irritation.

First aid

- Skin contact: Wash immediately with plenty of water and soap/

- Inhalation: Remove victim to fresh air. Clean nasal cavity with water. Give oxygen if breathing difficulty. Seek medical attention.
If feeling unwell, immediately seek medical attention.

- Eye contact: Rinse immediately with clean water for 15 minutes.
If feeling unwell, immediately seek medical attention.

- Ingestion: Immediately rinse mouth with water.
Do not induce vomiting. Give large quantities of water or milk to drink.
If feeling unwell, immediately seek medical attention.

Protection of rescue personnel: Avoid all unnecessary exposure. Use appropriate protection (see Section 9).

SECTION 5 – FIRE, FIGHTING & EXPLOSION DATA

Fire:	Non Combustible.
Flammability:	Non Flammable
Flash point:	Not Combustible
Extinguishing media:	In case of fire in immediate vicinity use any extinguishing agent.
Protection of fire-fighters:	Use breathing apparatus (self-contained breathing apparatus with full face shield). Wear suitable protective clothing.
Hazardous combustion and: Decomposition products	None.

SECTION 6 - ACCIDENTAL RELEASE MEASURES & SPILL LEAK PROCEDURES

Personal precautions: Wear suitable gloves and eye/face protection. Avoid dust creation.
Environmental precautions: Avoid allowing product to enter drains, sewage system, ground water.
Methods for cleaning up: Sweep up and shovel into suitable containers for disposal. Re-use or recycle waste.

SECTION 7 - HANDLING AND STORAGE

Handling & storing: Good housekeeping - store in a cool dry place - keep containers shut. Avoid making dust. Avoid moisture.
Packing Materials: All materials suitable.

SECTION 8 - EXPOSURE CONTROL / PERSONAL PROTECTION

- Respiratory protection: Respiratory protection equipment necessary when dust is apparent Type P1 respirator (EN 143).
- Hand protection: Protective Gloves.
Material: leather gloves, cotton gloves, rubber gloves.
- Skin protection: Work clothes.
- Eye protection: Chemical goggles or safety glasses.
- Engineering measures: Mechanical ventilation is recommended.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Form: light pink powder
Melting Point: 700 degrees celcius.
Solubility in water: Soluble
Appearance & Odour: Solid granular powder(fine), white to off white colour.
Density: 2.95 g/cm3

SECTION 10 - STABILITY & REACTIVITY DATA

Stability: Stable under ordinary conditions, avoid moisture.
Hazardous Reactions: Hazardous decomposition products formed under fire conditions. - Sulphur oxides, Manganese/manganese oxides.
Incompatibility (materials to avoid): Strong oxidizing agents. Avoid moisture

SECTION 11 – TOXILOGICAL INFORMATION

Acute toxicity	Harmful: danger of serious damage to health by prolonged exposure if swallowed.
- Inhalation:	May be harmful if inhaled. May cause respiratory tract irritation.
- Dermal:	May cause skin irritation..
- Ingestion:	Harmful if swallowed. Danger of serious damage to health,
Dermal irritation:	Can cause irritation.
Eyes irritation:	Causes serious eye irritation.
Chronic toxicity:	Not available.
Sensitization:	Not available.
Carcinogenicity:	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.
Mutagenicity:	Not available.
Reproductive toxicity:	Reproductive toxicity - mouse - male - Oral Paternal Effects: Spermatogenesis (including genetic material, sperm morphology, motility, and count).

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., Prolonged or repeated inhalation may cause:, Pneumonia

SECTION 12 - ECOLOGICAL INFORMATION

Persistence and degradability:	Not applicable.
Bioaccumulative potential:	Not applicable.
Ecotoxicity:	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Mobility:	Not applicable.

SECTION 13 - DISPOSAL CONSIDERATIONS

Disposal:	Comply with local regulations for disposal.
Waste of residues:	This material and its container should be labeled Hazardous Goods.
Contaminated packaging:	Keep waste packaging separate. Waste should be disposed of in a permitted chemical waste facility.

SECTION 14 - TRANSPORT INFORMATION

ADR/RID

UN-Number: 3077, Class: 9, Packing group: III

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Manganese Sulphate monohydrate)

IMDG
UN-Number: 3077, Class: 9 ,Packing group: III EMS-No: F-A, S-F
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Manganese Sulfate monohydrate)
Marine pollutant: Yes
IATA
UN-Number: 3077, Class: 9 , Packing group: III
Proper shipping name: Environmentally hazardous substance, solid, N.O.S. (Manganese Sulfate monohydrate)

SECTION 15 – REGULATORY INFORMATION

Classification according to Regulation (EC) 1272/2008 (GHS-CLP).
This Safety Data Sheet complies with EC regulation No. 1907/2006/

SECTION 16 - OTHER INFORMATION

Text of H-code(s) and R-phrase(s) mentioned in Section 3
Aquatic Chronic Chronic aquatic toxicity
H373 May cause damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.
STOT RE Specific target organ toxicity - repeated exposure
N Dangerous for the environment
Xn Harmful
R48/20/22 Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed/

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