

SAFETY DATA SHEET

Preparation Date: 12/28/2018

Revision Number: E1

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name : Manganese Citrate, Decahydrate, FCC
 Product Number : M2049
 Brand : Spectrum Chemical
 CAS-No. : 10024-66-5

1.2 Details of the supplier of the safety data sheet

Company : Spectrum Chemical
 14422 South San Pedro St.
 Gardena, CA 90248
 Telephone : +1 310-516-8000
 Fax : +1 310-516-9843

1.3 Emergency telephone number

Emergency Phone #: +1-800-424-9300 (CHEMTREC)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Not classified

2.2. GHS Label elements, including precautionary statements

GHS-US labeling

No labeling applicable

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Substance type : Mono-constituent

Name	Product identifier	%	GHS-US classification
Manganese Citrate (Main constituent)	(CAS-No.) 10024-66-5	100	Not classified

Full text of hazard classes and H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
 First-aid measures after skin contact : Wash skin with plenty of water.
 First-aid measures after eye contact : Rinse eyes with water as a precaution.
 First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation : May cause respiratory irritation.

Symptoms/effects after skin contact	: Slight irritation.
Symptoms/effects after eye contact	: Mild eye irritation.
Symptoms/effects after ingestion	: Gastrointestinal complaints.
Chronic symptoms	: Impairment of the nervous system.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam.

5.2. Specific hazards arising from the chemical

Fire hazard	: Not flammable. Heating increases the fire hazard.
Explosion hazard	: Potential dust explosion hazard.
Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Cool down the containers exposed to heat with a water spray.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	: protective clothing. Protective goggles. Gloves. See "Material-Handling" to select protective clothing.
Emergency procedures	: Ventilate spillage area.

6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
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6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	: Collect spillage. Use suitable disposal containers. Knock down/dilute dust cloud with water spray.
Methods for cleaning up	: Mechanically recover the product.
Other information	: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Ensure good ventilation of the work station. Wear personal protective equipment.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Comply with applicable regulations. Does not require any specific or particular technical measures.
Storage conditions	: Store in a clean, dry warehouse in the original unopened containers. Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Environmental exposure controls	: Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Dust production: dust mask with filter type P2. Gloves. Safety glasses.

Materials for protective clothing:

Wear suitable protective clothing, gloves and eye/face protection

Hand protection:

Impermeable protective gloves

Eye protection:

Safety glasses

Skin and body protection:

In case of dust production: dustproof clothing

Respiratory protection:

Dust mask

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Pale pink powder.
Color	: Pink
Odor	: odorless
Odor threshold	: No data available
pH	: No data available
Melting point	: > 150 °C
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Non flammable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: Not applicable
Molecular mass	: 723.17 g/mol
Solubility	: Poorly soluble in water.
Log Pow	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: Not applicable
Explosive properties	: No data available

Oxidizing properties : No data available

9.2. Other information

Minimum ignition energy : ≈

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Moisture.

10.5. Incompatible materials

Strong oxidizers.

10.6. Hazardous decomposition products

manganese dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

Manganese Citrate (10024-66-5)

LD50 oral rat	9000 mg/kg
ATE US (oral)	9000 mg/kg body weight

Skin corrosion/irritation : Not classified (Lack of data)

Serious eye damage/irritation : Not classified (Lack of data)

Respiratory or skin sensitization : Not classified (Lack of data)

Germ cell mutagenicity : Not classified (Lack of data)

Carcinogenicity : Not classified (Lack of data)

Reproductive toxicity : Not classified (Lack of data)

Specific target organ toxicity – single exposure : Not classified (Lack of data)

Specific target organ toxicity – repeated exposure : Not classified (Lack of data)

Aspiration hazard : Not classified
(Not applicable)

Viscosity, kinematic : No data available

Symptoms/effects after inhalation : May cause respiratory irritation.

Symptoms/effects after skin contact : Slight irritation.

Symptoms/effects after eye contact : Mild eye irritation.

Symptoms/effects after ingestion : Gastrointestinal complaints.

Chronic symptoms : Impairment of the nervous system.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not regulated

Transportation of Dangerous Goods

Proper Shipping Name (Transportation of Dangerous Goods) : Not regulated for transport

Transport by sea

Proper Shipping Name (IMDG) : Not regulated for transport

Air transport

Proper Shipping Name (IATA) : Not regulated for transport

SECTION 15: Regulatory information

15.1. US Federal regulations

Manganese Citrate (10024-66-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

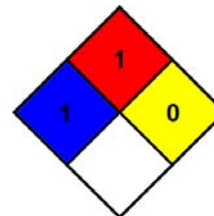
No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

NFPA health hazard	: 1 - Materials that, under emergency conditions, can cause significant irritation.
NFPA fire hazard	: 1 - Materials that must be preheated before ignition can occur.
NFPA reactivity	: 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating	
Health	: 1 Slight Hazard - Irritation or minor reversible injury possible
Flammability	: 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)
Physical	: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet