

# SP Manganese 20% Mn

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations  
Issue date: 8/30/2022 Revision date: 4/23/2025 Supersedes: 9/28/2022 Version: 2.0

### SECTION 1 Identification

#### 1.1. Product identifier

Product form : Mixture  
Product name : SP Manganese 20% Mn  
Product code : M80475

#### 1.2. Other means of identification

No additional information available

#### 1.3. Recommended use of the chemical and restrictions on use

No additional information available

#### 1.4. Supplier's details

Simplot AB Retail, Inc., DBA Simplot Turf and Horticulture  
P.O. Box 9296  
Boise, ID, 83707

#### 1.5. Emergency phone number

Emergency number : CHEMTREC 1-800-424-9300

### SECTION 2 Hazard Identification

#### 2.1. Classification of the substance or mixture

##### GHS US classification

Acute toxicity (oral), Category 4	H302	Harmful if swallowed.
Skin corrosion/irritation, Category 2	H315	Causes skin irritation.
Serious eye damage/eye irritation, Category 2A	H319	Causes serious eye irritation.
Specific target organ toxicity — Repeated exposure, Category 2	H373	May cause damage to organs through prolonged or repeated exposure.

Full text of H statements : see section 16

#### 2.2. Label elements

##### GHS US labeling

Hazard pictograms (GHS US)



Signal word (GHS US) : Warning

Hazard statements (GHS US) : H302 - Harmful if swallowed  
H315 - Causes skin irritation  
H319 - Causes serious eye irritation  
H373 - May cause damage to organs through prolonged or repeated exposure

Precautionary statements (GHS US) : P260 - Do not breathe dust, fume, gas, mist, vapors, spray.  
P264 - Wash hands, forearms and face thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P280 - Wear protective gloves.  
P301+P312 - If swallowed: Call a poison center or doctor if you feel unwell.  
P302+P352 - If on skin: Wash with plenty of water.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

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contact lenses, if present and easy to do. Continue rinsing.  
P314 - Get medical advice or attention if you feel unwell.  
P321 - Specific treatment (see supplemental first aid instruction on this label).  
P330 - Rinse mouth.  
P332+P313 - If skin irritation occurs: Get medical advice or attention.  
P337+P313 - If eye irritation persists: Get medical advice or attention.  
P362+P364 - Take off contaminated clothing and wash it before reuse.  
P501 - Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

### 2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

### 2.4. Hazards not otherwise classified

No additional information available

### 2.5. Unknown acute toxicity

No additional information available

## SECTION 3 Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	GHS US classification
manganese(II)sulfate	CAS-No.: 7785-87-7		Acute Tox. 4 (Oral), H302 STOT RE 2, H373
citric acid	CAS-No.: 77-92-9		Skin Irrit. 2, H315 Eye Irrit. 2A, H319
Sugar	-		Not classified

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

## SECTION 4 First aid measures

### 4.1. Description of necessary first-aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). Call a poison center/doctor/physician if you feel unwell.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Allow affected person to breathe fresh air. Allow the victim to rest.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a poison center/doctor/physician if you feel unwell.

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### 4.2. Most important symptoms/effects, acute and delayed

Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/effects	: Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after inhalation	: None under normal conditions. Dust of the product, if present, may cause respiratory irritation after an excessive inhalation exposure.
Symptoms/effects after skin contact	: Irritation.
Symptoms/effects after eye contact	: Eye irritation.
Symptoms/effects after ingestion	: Harmful if swallowed.

### 4.3. Indication of immediate medical attention and special treatment needed, if necessary

Other medical advice or treatment	: Treat symptomatically.
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## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Carbon dioxide. Sand. Water spray. Dry powder. Foam.
Unsuitable extinguishing media	: Do not use a heavy water stream.

### 5.2. Specific hazards arising from the chemical

Fire hazard	: No fire hazard.
Explosion hazard	: No direct explosion hazard.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

### 5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection. 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

General measures	: Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.
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#### For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment.
Emergency procedures	: Ventilate spillage area. Evacuate unnecessary personnel. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.

#### For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Ventilate area. Evacuate unnecessary personnel.
Environmental precautions	: Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

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### 6.2. Methods and materials for containment and cleaning up

For containment	: Using a clean shovel, put the material in a dry container and cover without compressing it.
Methods for cleaning up	: Mechanically recover the product. On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.
Other information	: Dispose of materials or solid residues at an authorized site.

See Heading 8, Exposure controls and personal protection, 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. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes. Wear personal protective equipment.
Hygiene measures	: Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
Additional hazards when processed	: Not expected to present a significant hazard under anticipated conditions of normal use.

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

Technical measures	: Keep in a cool, well-ventilated place away from heat.
Storage conditions	: Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use.
Incompatible products	: Strong bases. Strong acids.
Incompatible materials	: Sources of ignition. Direct sunlight.
Packaging materials	: Store always product in container of same material as original container.

## SECTION 8 Exposure controls/personal protection

### 8.1. Control parameters

#### manganese(II)sulfate (7785-87-7)

#### USA - ACGIH - Occupational Exposure Limits

ACGIH OEL TWA	0.1 mg/m <sup>3</sup> (Inhalable fraction)
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### 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, such as personal protective equipment

#### Personal protective equipment:

Avoid all unnecessary exposure.

#### Hand protection:

Wear protective gloves.

#### Eye protection:

Chemical goggles or safety glasses. Safety glasses

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### Skin and body protection:

Wear suitable protective clothing

### Respiratory protection:

Wear appropriate mask

### Personal protective equipment symbol(s):



### Other information:

Do not eat, drink or smoke during use.

## SECTION 9 Physical and chemical properties

### 9.1. Basic physical and chemical properties

Physical state	: Solid
Appearance	: Off-white granules.
Color	: Off-white
Odor	: characteristic
Odor threshold	: No data available
pH	: 6 – 7
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Flammability (solid, gas)	: Non flammable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: Not applicable
Explosion limits	: Not applicable
Particle characteristics	: No data available

#### manganese(II)sulfate

Particle characteristics	No data available
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#### citric acid

Particle characteristics	No data available
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#### Sugar

Particle characteristics	No data available
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### 9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

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### 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

Not established.

#### 10.3. Possibility of hazardous reactions

Not established.

#### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

#### 10.5. Incompatible materials

Strong acids. Strong bases.

#### 10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

### SECTION 11 Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity (oral) : Harmful if swallowed.  
Acute toxicity (dermal) : Not classified  
Acute toxicity (inhalation) : Not classified

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ATE US (oral)	705.882 mg/kg body weight
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#### manganese(II)sulfate (7785-87-7)

LD50 oral rat	2150 mg/kg (Rat, Male / female, Experimental value, Oral)
LC50 Inhalation - Rat	> 4.45 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (dust))
ATE US (oral)	500 mg/kg body weight

#### citric acid (77-92-9)

LD50 oral rat	3000 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Literature study; 11700 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rat	> 2000 mg/kg body weight (Rat; Experimental value; OECD 402: Acute Dermal Toxicity)
ATE US (oral)	3000 mg/kg body weight

Skin corrosion/irritation : Causes skin irritation.  
pH: 6 – 7

#### manganese(II)sulfate (7785-87-7)

pH	6 – 6.5 (42.5 - 45 %, 20 °C, EU Method A.6: Water solubility)
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#### citric acid (77-92-9)

pH	2.2 (1 %)
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Serious eye damage/irritation : Causes serious eye irritation.  
pH: 6 – 7

manganese(II)sulfate (7785-87-7)	
pH	6 – 6.5 (42.5 - 45 %, 20 °C, EU Method A.6: Water solubility)
citric acid (77-92-9)	
pH	2.2 (1 %)

Respiratory or skin sensitization : Not classified  
Germ cell mutagenicity : Not classified  
Carcinogenicity : Not classified  
Reproductive toxicity : Not classified  
STOT-single exposure : Not classified  
STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

manganese(II)sulfate (7785-87-7)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

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Viscosity, kinematic	Not applicable
manganese(II)sulfate (7785-87-7)	
Viscosity, kinematic	Not applicable
citric acid (77-92-9)	
Viscosity, kinematic	No data available
Sugar	
Viscosity, kinematic	No data available

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.  
Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.  
Symptoms/effects after inhalation : None under normal conditions. Dust of the product, if present, may cause respiratory irritation after an excessive inhalation exposure.  
Symptoms/effects after skin contact : Irritation.  
Symptoms/effects after eye contact : Eye irritation.  
Symptoms/effects after ingestion : Harmful if swallowed.

## SECTION 12 Ecological information

### 12.1. Ecotoxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.  
Hazardous to the aquatic environment, short-term (acute) : Not classified  
Hazardous to the aquatic environment, long-term (chronic) : Not classified

manganese(II)sulfate (7785-87-7)	
LC50 - Fish [1]	3.17 mg/l (96 h, Oncorhynchus mykiss, Flow-through system, Fresh water, Weight of evidence, Manganese ion)

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manganese(II)sulfate (7785-87-7)	
EC50 72h - Algae [1]	61 mg/l (OECD 201: Alga, Growth Inhibition Test, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Growth rate)
citric acid (77-92-9)	
LC50 - Fish [1]	2600 mg/l (48 h; Leuciscus idus; pH = 7)
EC50 - Crustacea [1]	120 mg/l (72 h; Daphnia magna; pH < 7)
LC50 - Fish [2]	1516 mg/l (96 h; Lepomis macrochirus)
EC50 - Crustacea [2]	85 mg/l (Daphnia magna)
Threshold limit - Algae [1]	80 mg/l (192 h; Microcystis aeruginosa; Reproduction)
Threshold limit - Algae [2]	640 mg/l (168 h; Scenedesmus quadricauda)

### 12.2. Persistence and degradability

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Persistence and degradability	Not established.
manganese(II)sulfate (7785-87-7)	
Persistence and degradability	Biodegradability: not applicable, No (test)data on mobility of the substance available, May cause long-term adverse effects in the environment.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)
citric acid (77-92-9)	
Persistence and degradability	Readily biodegradable in water, Biodegradable in the soil, Not established.
Biochemical oxygen demand (BOD)	0.42 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	0.728 g O <sub>2</sub> /g substance
ThOD	0.686 g O <sub>2</sub> /g substance
BOD (% of ThOD)	(20 day(s)) 0.89
Sugar	
Persistence and degradability	Not established.

### 12.3. Bioaccumulative potential

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Bioaccumulative potential	Not established.
manganese(II)sulfate (7785-87-7)	
Bioaccumulative potential	No bioaccumulation data available. Not established.
citric acid (77-92-9)	
Partition coefficient n-octanol/water (Log Pow)	-1.72 (Experimental value)
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.
Sugar	
Bioaccumulative potential	Not established.



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### 12.4. Mobility in soil

#### manganese(II)sulfate (7785-87-7)

Ecology - soil

No (test)data on mobility of the substance available.

### 12.5. Other adverse effects

Ozone : Not classified

Fluorinated greenhouse gases : No

Other information : Avoid unintentional release to the environment.

## SECTION 13 Disposal considerations

Regional waste regulation : Disposal must be done according to official regulations.

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Sewage disposal recommendations : Disposal must be done according to official regulations.

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Disposal must be done according to official regulations.

Additional information : Do not re-use empty containers.

Ecological waste information : Avoid unintentional release to the environment.

## SECTION 14 Transport information

### 14.1. UN number

Not regulated for transport

### 14.2. UN Proper Shipping Name

Proper Shipping Name (DOT) : Not applicable

Proper Shipping Name (TDG) : Not applicable

Proper Shipping Name (IMDG) : Not applicable

Proper Shipping Name (IATA) : Not applicable

### 14.3. Transport hazard class(es)

#### DOT

Transport hazard class(es) (DOT) : Not applicable

#### TDG

Transport hazard class(es) (TDG) : Not applicable

#### IMDG

Transport hazard class(es) (IMDG) : Not applicable

#### IATA

Transport hazard class(es) (IATA) : Not applicable

### 14.4. Packing group

Packing group (DOT) : Not applicable

Packing group (TDG) : Not applicable

Packing group (IMDG) : Not applicable

Packing group (IATA) : Not applicable

### 14.5. Environmental hazards

Other information : No supplementary information available.

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### 14.6. Transport in bulk

Not applicable

### 14.7. Special precautions for user

#### DOT

No data available

#### TDG

No data available

#### IMDG

No data available

#### IATA

No data available

## SECTION 15 Regulatory information

### 15.1. Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:

Sugar	CAS-No.	%
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### 15.2. International regulations

#### CANADA

##### manganese(II)sulfate (7785-87-7)

Listed on the Canadian DSL (Domestic Substances List)

##### citric acid (77-92-9)

Listed on the Canadian DSL (Domestic Substances List)

##### Sugar

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

#### EU-Regulations

No additional information available

#### National regulations

No additional information available

### 15.3. 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

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Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of hazard classes and H-statements	
H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H373	May cause damage to organs through prolonged or repeated exposure

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.