



MEDICAP[®] MN Systemic Fertilizer Implants

Safety Data Sheet

SECTION 1: IDENTIFICATION OF SUBSTANCE/MIXTURE AND COMPANY

Product Identifier MEDICAP[®] MN Systemic Tree Implants

Other Means of Identification None

Recommended Use of Product Fertilizer

Manufacturer Creative Sales, Inc.

Address 222 N. Park Ave
Fremont, NE 68025 USA

Telephone 402-727-4800
402-727-4841 (FAX)

Website www.acecap-medicap.com

E-mail brad@acecap.net

Emergency phone number 800-759-7739

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification

Specific target organ systemic toxicity - repeated exposure, Category 2, H373
For the full text of the H-Statements mentioned in this Section, see Section 16

GHS-Labeling

Hazard pictograms



Signal Word
Warning

Hazard Statements

H373 May cause damage to organs through prolonged or repeated exposure

Precautionary Statements

P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray
P314 Get medical advice/ attention if you feel unwell
P501 Dispose of contents/ container to an approved waste disposal plant

Other hazards

None known

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Formula	MnSO ₄ * H ₂ O	MnO ₄ S * H ₂ O (Hill)
Molar mass	169.02 g/mol	

Hazardous ingredients

Chemical Name (Concentration)
CAS-No.
Manganese sulphate monohydrate (>= 90 % - <= 100 %)
10034-96-5

Exact percentages are being withheld as a trade secret

Product name: MEDICAP[®] MN SYSTEMIC TREE IMPLANTS

SDS US

Issue date: 09-27-2017

SECTION 4: FIRST AID MEASURES

Description of first-aid measures

Inhalation

After inhalation: fresh air. Call in physician

Skin contact

After skin contact: wash off with plenty of water. Remove contaminated clothing

Eye contact

After eye contact: rinse out with plenty of water

Ingestion

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician

Never give anything by mouth to an unconscious person

Most important symptoms and effects, both acute and delayed

Irritant effects, gastric pain, Diarrhea, Nausea, Vomiting

Indication of any immediate medical attention and special treatment needed

No information available

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given

Special hazards arising from the substance or mixture

Not combustible

Ambient fire may liberate hazardous vapors

Fire may cause evolution of:

Sulfur oxides

Advice for firefighters

Special protective equipment for fire-fighters

In the event of fire, wear self-contained breathing apparatus

Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation
Evacuate the danger area, observe emergency procedures, consult an expert

Advice for emergency responders: Protective equipment see section 8

Environmental precautions

Do not empty into drains

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills

Observe possible material restrictions (see sections 7 and 10)

Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

Observe label precautions

Conditions for safe storage, including any incompatibilities

Tightly closed. Dry

Store at +15°C to +25°C (+59°F to +77°F)

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limit(s)

Ingredients	Value	Threshold limits	Remarks
Basis			
<i>Manganese sulphate monohydrate 10034-96-5</i>			
ACGIH	Time Weighted Average (TWA):	0.2 mg/m ³	Expressed as: as Mn
NIOSH/GUIDE	Recommended exposure limit (REL):	1 mg/m ³	Form of exposure: Fume Expressed as: as Mn
	Short Term Exposure Limit (STEL):	3 mg/m ³	Form of exposure: Fume Expressed as: as Mn
OSHA_TRANS	Ceiling Limit Value:	5 mg/m ³	Expressed as: as Mn
Z1A	Ceiling Limit Value:	5 mg/m ³	Expressed as: as Mn

Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

Individual protection measures

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier

Hygiene measures

Change contaminated clothing. Application of skin- protective barrier cream recommended. Wash hands after working with substance

Eye/face protection

Safety glasses

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary

Other protective equipment:

Protective clothing

Respiratory protection

Required when dusts are generated

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	solid
Color	off-white/light blue
Odor	odorless

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Odor Threshold	Not applicable
Ph	3.0 - 3.5 at 50 g/l 68 °F (20 °C)
Melting point	700 °C (anhydrous substance)
Boiling point/boiling range	Not applicable
Flash point	Does not flash
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Vapor pressure	No information available
Relative vapor density	No information available
Density	2.95 g/cm ³ at 68 °F (20 °C)
Relative density	No information available
Water solubility	762 g/l at 68 °F (20 °C)
Partition coefficient: n-octanol/water	No information available
Auto-ignition temperature	No information available
Decomposition temperature	752 - 842 °F (400 - 450 °C)
Elimination of water of crystallization	1562 °F (850 °C) (anhydrous substance)
Viscosity, dynamic	No information available
Explosive properties	Not classified as explosive
Oxidizing properties	None
Ignition temperature	Not applicable
Bulk density	ca.1,000 - 1,200 kg/m ³

SECTION 10. STABILITY AND REACTIVITY

Reactivity

See below

Chemical stability

Releases water of crystallization when heated

Possibility of hazardous reactions

Violent reactions possible with:
Acids

Conditions to avoid

No information available

Incompatible materials

No information available

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Hazardous decomposition products

In the event of fire: See section 5

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Likely route of exposure

Eye contact, Skin contact, Ingestion

Acute oral toxicity

LD50 Rat: 2,150 mg/kg (anhydrous substance) (IUCLID)

Symptoms: After uptake of large quantities: Nausea, Vomiting, Diarrhea, gastric pain, Irritations of mucous membranes in the mouth, pharynx, esophagus and gastrointestinal tract

Acute inhalation toxicity

Symptoms: tissue damage, Pneumonia

Genotoxicity in vitro

Ames test result: negative

(National Toxicology Program)

Mutagenicity (mammal cell test): chromosome aberration result: positive

(National Toxicology Program)

Specific target organ systemic toxicity - single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure

Specific target organ systemic toxicity - repeated exposure

May cause damage to organs through prolonged or repeated exposure

Aspiration hazard

Regarding the available data the classification criteria are not fulfilled

Carcinogenicity

IARC	No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC
OSHA	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA
NTP	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP
ACGIH	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH

Further information

Manganese compounds are generally only very slightly absorbable via the gastrointestinal tract

Handle in accordance with good industrial hygiene and safety practice

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxicity to fish

LC50 Pimephales promelas (fathead minnow): 30.6 mg/l; 96 h (anhydrous substance) (ECOTOX Database)

Toxicity to daphnia and other aquatic invertebrates

EC50 Daphnia magna (Water flea): 8.3 mg/l; 48 h (anhydrous substance) (ECOTOX Database)

Persistence and degradability

No information available

Bioaccumulative potential

No information available

Mobility in soil

No information available

Additional ecological information

Discharge into the environment must be avoided

SECTION 13. DISPOSAL CONSIDERATIONS

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14. TRANSPORT INFORMATION**Land transport (DOT)**

UN number	UN 3077
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (MANGANESE(II)-SULPHATE)
Class	9
Packing group	III
Environmentally hazardous	--

Air transport (IATA)

UN number	UN 3077
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (MANGANESE(II)-SULPHATE)
Class	9
Packing group	III
Environmentally hazardous	--
Special precautions for user	no

Sea transport (IMDG)

UN number	UN 3077
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (MANGANESE(II)-SULPHATE)
Class	9
Packing group	III
Environmentally hazardous	--

Special precautions for user yes
EmS F-A S-F

SECTION 15. REGULATORY INFORMATION

United States of America

SARA 313

The following components are subject to reporting levels established by SARA Title III, Section 313:

Ingredients

Manganese sulphate monohydrate	10034-96-5	100 %
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SARA 302

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A
This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3

DEA List I

Not listed

DEA List II

Not listed

US State Regulations

Massachusetts Right To Know

Remarks

No components are subject to the Massachusetts Right to Know Act

New Jersey Right To Know

Ingredients

Manganese sulphate monohydrate

California Prop 65 Components

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects

Notification status

TSCA:	All components of the product are listed in the TSCA-inventory
DSL:	All components of this product are on the Canadian DSL
KOREA:	Not in compliance with the inventory

SECTION 16. OTHER INFORMATION

Training advice

Provide adequate information, instruction and training for operators

Labeling

Hazard pictograms



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

Prevention

P273 Avoid release to the environment

Response

P314 Get medical advice/ attention if you feel unwell

Full text of H-Statements referred to under sections 2 and 3

H373 May cause damage to organs through prolonged or
Repeated exposure

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Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at www.wikipedia.org