

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier

Product name : Q-Bio Manganese 5.5%TM
 Product code : 8522
 Product form : Substance

1.2. Relevant identified uses of the substance or mixture and advised against

Intended use : Plant Nutritional Supplement
 Uses advised against : None identified

1.3. Details of the supplier of the safety data sheet

QualiTech, Inc. Phone: 1-800-328-5870
 318 Lake Hazeltine Drive Web: qualitechco.com
 Chaska, MN 55318

1.4. Emergency telephone number

Emergency number : Infotrac (800) 535-5053

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Skin Irritant 2 H315
 Eye Irritant 2 H319



2.2. Label elements

GHS-US labeling

Hazard statement (GHS-US) : H315 Causes skin irritation
 H319 Causes serious eye irritation

Signal word (GHS-US) : **Warning**

Precautionary statements (GHS-US) : P101 If medical advice is needed, have product container or label at hand
 P102 Keep out of reach of children
 P103 Read label before use
 P261 Avoid breathing dust/fume/ gas/mist/vapours/spray
 P264 Wash skin thoroughly after handling
 P280 Wear protective gloves/protective clothing/eye protection/face protection
 P302+P352 IF ON SKIN: Wash with plenty of soap and water
 P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 P305+P351 IF IN EYES: Rinse cautiously with water for several minutes.
 P312 Call a POISON CENTER/doctor/physician if you feel unwell

2.3. Other Hazards

Other hazards not contributing to the classification : None under normal conditions

2.4. Unknown acute toxicity (GHS-US) : No data available

SECTION 3: Composition/information on ingredients

3.1. Mixture

Not applicable

3.2. Substance

Name	CAS #	%
Manganese	10034-96-5	>15
Vinegar 30%	64-19-7	>5

Specific chemical identity (ies) and/or exact percentage(s) of composition may be withheld as a trade secret.

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : If exposed or concerned, get medical attention/advice. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use. Never give anything to an unconscious person
- First-aid measures after inhalation : IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if breathing is affected. Supply oxygen if necessary
- First-aid measures after skin contact : IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs, get medical advice/attention
- First-aid measures after eye contact : IF IN EYES: Immediately flush with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing. Seek medical care.
- First-aid measures after ingestion : IF SWALLOWED: Rinse mouth. Do NOT induce vomiting without advice from poison control center or medical professional. Contact Poison Control Center or seek medical attention if you feel unwell

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries after inhalation : Not available
- Symptoms/injuries after skin contact : Causes skin irritation
- Symptoms/injuries after eye contact : Causes eye irritation, may cause significant eye irritation
- Symptoms/injuries after ingestion : Causes digestive tract irritation

4.3. Indication of any immediate medical attention and special treatment needed

Call physician and Poison Control Center if adverse conditions appear

SECTION 5: Firefighting measures

5.1. Extinguishing Media

- Suitable extinguishing media : Any media suitable for surrounding materials
- Unsuitable extinguishing media : Does not apply

5.2. Special hazards arising from the substance or mixture

- Fire hazard : The product is not flammable
- Explosion hazard : No data available
- Reactivity : No data available

5.3. Advice for firefighters

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Restrict area and proceed with clean up using appropriate protective equipment. Dispose of material in accordance with all applicable municipal, state, and federal regulations

6.1.1 For non-emergency personnel

- Protective equipment : Safety glasses. Gloves. Dust mask
Emergency procedures : Evacuate unnecessary personnel

6.1.2 For emergency responders

- Protective equipment : Equip clean up crew with proper protection
Emergency procedures : Rinse area down with water after cleanup.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment

6.3. Methods and material for containment and cleaning up

- For containment : Use acid compatible boom to contain material
Methods for cleaning up : Contain spill with acid compatible absorbent material and recover into drums. Rinse spill area with water

- 6.4. Reference to other sections : See heading 8. Exposure controls and personal protection

SECTION 7: Handling and storage

- 7.1. Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and when leaving work

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep container tightly closed. Keep container in a cool, dry, well-ventilated area. Keep away from heat and direct sunlight

- Incompatible products : Strong alkali products may react

- Incompatible materials or conditions : No additional information available

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Manganese (10034-96-5)	
NIOSH REL, TWA (mg/m ³)	1
OSHA PEL, TWA (mg/m ³)	1
NIOSH IDLH (mg/m ³)	100
Vinegar (64-19-7)	
NIOSH REL, TWA (mg/m ³)	Not established
OSHA PEL, TWA (mg/m ³)	Not established
NIOSH IDLH (mg/m ³)	Not established

8.2. Exposure Controls

Appropriate engineering controls	: pH between 2-3, use caution. Emergency eye wash fountain and safety showers should be immediately available
Personal protective equipment	: Avoid physical exposure



Hand protection	: Wear chemically resistant gloves
Eye protection	: Chemical goggles or face shield + safety glasses
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: Avoid breathing fumes
Other information	: Do not eat, drink, or smoke during use

SECTION 9: Physical and chemical properties

Physical state	: Liquid
Appearance	: Colored liquid
Molecular mass	: No data available
Color	: Amber to dark brown
Odor	: Slight to none
Odor Threshold	: No data available
pH	: 2.0-3.0
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Density	: No data available
Solubility	: No data available
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosive limits	: No data available

SECTION 10: Stability and Reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7)

10.3. Possibility of hazardous reactions

May react with bases or strong oxidizers

10.4. Conditions to avoid

Contact with bases or strong oxidizers

10.5. Incompatible materials

Strong bases or strong oxidizers

10.6. Hazardous decomposition products

No data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity : Not classified

Manganese (10034-96-5)	No data available
Vinegar (64-19-7)	Oral Rat LD50: 3310 mg/kg; LD50 skin rabbit 1060 mg/kg

Skin corrosion/irritation : Skin irritant (Category 2)

Serious eye damage/irritation : Eye irritant (Category 2)

Respirator or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

Symptoms/injuries after inhalation : No additional information available

Symptoms/injuries after skin contact : Causes skin irritation

Symptoms/injuries after eye contact : Causes eye irritation

Symptoms/injuries after ingestion : Not classified

Likely routes of exposure : Skin and eye contact

Chronic symptoms : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : No data available

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. Waste treatment methods

Waste disposal recommendations : Dispose of product in accordance with all applicable laws and regulations.
Ecology - waste materials : Avoid release to the environment

SECTION 14: Transport information

In accordance with DOT

Not a dangerous good in sense of transport regulations (US)

Additional information

Other information : No supplementary information available.

Transport by sea

No additional information available

Transport by air

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

Manganese (10034-96-5)

TSCA	No additional information available.
Section 302 (EHS) TPQ	No chemicals in this material are subject to the reporting requirements of SARA Title III,
Section 304 (EHS) RQ	No additional information available.
CERCLA RQ	No additional information available.
Section 313	Subject to reporting levels established by SARA Title III, Seciton 313

Vinegar (64-19-7)

TSCA	All of the ingredients in this product are listed on the EPA TSCA Inventory
Section 302 (EHS) TPQ	No additional information available.
Section 304 (EHS) RQ	No additional information available.
CERCLA RQ	No additional information available.
Section 313	This product contains the following chemicals subject to Annual Release Reporting Require

15.2. International regulations

Vinegar (64-19-7)

Canada	No additional information available.
European Union	No additional information available.
Australia	No additional information available.
China	No additional information available.
Other	No additional information available.

Manganese (10034-96-5)

Canada	Uncontrolled product: Disclosure at 1%
European Union	No additional information available.
Australia	No additional information available.
China	No additional information available.
Other	No additional information available.

15.3. US State Regulations

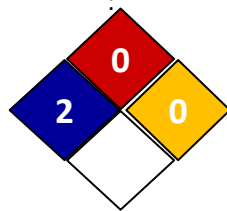
No additional information available.

SECTION 16: Other information

Other information

: None

NFPA/HMIS



Health	2
Fire	0
Reactivity	0
Personal Protection	E

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