

# Safety Data Sheet

## Section 1. Identification

**Product Name:** VitaCrop Micro

**Recommended use:** Plant Nutrient

**Restrictions on use:** Use only as directed

**Company Name - Address:**

Innvictis Crop Care, LLC  
1880 Fall River Drive, Suite 100  
Loveland, CO 80538

**Emergency phone number:** Call CHEMTREC Day or Night 1-800-424-9300

## Section 2. Hazard(s) Identification

**Classification:**

Physical	Health
Not Classified	Carcinogen Category 1 Eye Damage Category 1 Skin Irritant Category 2 Specific Target Organ Toxicity Repeated Exposure Category 2

**Danger!**



**Hazard statement(s)**

H315 Causes skin irritation.  
H318 Causes serious eye damage. H350  
May cause cancer by inhalation. H373  
May cause damage to brain through  
prolonged or repeated exposure by inhalation.

**Precautionary statement(s)**

P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read  
and understood.  
P260 Do not breathe dust.  
P264 Wash thoroughly after handling.  
P280 Wear eye protection, protective clothing, and protective  
gloves.  
P308 + P313 IF exposed or concerned: Get medical attention.  
P302 + P352 IF ON SKIN: Wash with plenty of water.

P332 + P313 If skin irritation occurs: Get medical attention.  
 P362 + P364 Take off contaminated clothing and wash it before reuse.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor.

P405 Store locked up.

P501 Dispose of contents and container in accordance with local and national regulations.

### Section 3. Composition / Information on Ingredients

Chemical name	CAS No.	Concentration
Potassium Sulfate	7778-80-5	30-40%
Magnesium Sulfate Heptahydrate	10034-99-8	10-20%
Iron Oxide	1309-37-1	10-20%
Iron Sulfate	17375-41-6	10-20%
Manganese Sulfate Monohydrate	10034-96-5	<10%
Manganese Oxide	1344-43-0	<5%
Magnesium Oxide	1309-48-4	<5%
Crystalline Silica-Quartz	14808-60-7	<1%

The exact concentration is being withheld as a trade secret.

### Section 4. First-Aid Measures

**Inhalation:** Remove to fresh air. If breathing is difficult, administer oxygen. Get medical attention.

**Skin contact:** Remove contaminated clothing and shoes. Flush skin thoroughly with water for several minutes. Get medical attention if irritation occurs. Launder clothing before re-use.

**Eye contact:** Immediately flush eyes thoroughly with large quantities of water for 20 minutes, while holding the eye lids open to be sure the material is washed out. Remove contact lenses if present and easy to do. Get immediate medical attention.

**Ingestion:** Rinse out mouth with water. Get medical attention.

**Most important symptoms/effects, acute and delayed:** Direct contact with dust may cause severe eye irritation with possible eye damage. Contact with dust may cause moderate skin irritation. Inhalation of dust may cause respiratory irritation, coughing and difficulty in breathing. Prolonged overexposure by inhalation may cause brain damage. Prolonged inhalation of respirable crystalline silica may cause lung disease (silicosis) and increase the risk of lung cancer. Risk of cancer depends on duration and level of exposure.

**Indication of immediate medical attention and special treatment, if necessary:** Immediate medical attention is required for eye contact.

### Section 5. Fire-Fighting Measures

**Suitable (and unsuitable) extinguishing media:** Use media appropriate for the surrounding environment.

**Specific hazards arising from the chemical:** Not flammable or combustible. Minimize the generation and accumulation of dust. Dry powders may accumulate static charge in handling which can be a source of ignition for flammable atmospheres. Thermal decomposition may produce oxides of carbon, iron, manganese, and other metal compounds.

**Special protective equipment and precautions for fire-fighters:** Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing. Powders that become wet may cause surfaces to be extremely slippery and cause a slip hazard. Contain water used in firefighting from entering sewers or natural waterways.

### Section 6. Accidental Release Measures

**Personal precautions, protective equipment, and emergency procedures:** Avoid contact with eyes and skin. Wear appropriate protective clothing as described in Section 8. Avoid generating air-borne dust. Do not breathe dust. Ventilate area.

**Environmental precautions:** Avoid releases to the environment. Report spills and releases as required to appropriate authorities.

**Methods and materials for containment and cleaning up:** Scoop or shovel up using methods that minimize the generation of airborne dust. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Place dry material into an appropriate container for disposal. Wipe spill area with a damp cloth. Do not flush to the sewer.

### Section 7. Handling and Storage

**Precautions for safe handling:** Avoid contact with eyes, skin and clothing. Do not generate or breathe dust. Wear protective clothing and equipment as described in Section 8. Use with adequate ventilation and proper dust collection methods to keep exposure level below occupational exposure limits. Wash thoroughly with soap and water after use. Do not eat, drink or smoke in the work area. Keep containers closed when not in use. Silica dust may be in the air without a visible dust cloud. Follow good housekeeping practices to keep surfaces, including areas overhead such as piping, drop ceilings, ductwork, etc. free from settled dust.

**Conditions for safe storage, including any incompatibilities:** Store in a cool, dry, well ventilated location away from incompatible materials. Keep containers closed when not in use. Protect from physical damage.

### Section 8. Exposure Controls / Personal Protection

#### Exposure guidelines:

Potassium Sulfate (as PNO)	5 mg/m <sup>3</sup> (respirable fraction), 15 mg/m <sup>3</sup> (total dust) TWA OSHA PEL
Magnesium Sulfate Heptahydrate	None Established
Iron Oxide	5 mg/m <sup>3</sup> TWA ACGIH TLV (respirable) 10 mg/m <sup>3</sup> TWA OSHA PEL (as fume)
Iron Sulfate	None Established
Manganese Sulfate Monohydrate (as Mn inorganic compounds)	0.02 mg/m <sup>3</sup> TWA (respirable), 0.1 mg/m <sup>3</sup> TWA (inhalable) ACGIH TLV 5 mg/m <sup>3</sup> Ceiling OSHA PEL
Manganese Oxide (as Mn inorganic compounds)	0.02 mg/m <sup>3</sup> TWA (respirable), 0.1 mg/m <sup>3</sup> TWA (inhalable) ACGIH TLV 5 mg/m <sup>3</sup> Ceiling OSHA PEL
Magnesium Oxide	10 mg/m <sup>3</sup> (inhalable) TWA ACGIH TLV 15 mg/m <sup>3</sup> TWA OSHA PEL (total particulate) (as fume)

Crystalline Silica-Quartz	0.025 mg/m <sup>3</sup> TWA ACGIH TLV (Respirable) 0.05 mg/m <sup>3</sup> TWA OSHA PEL (respirable dust)
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**Appropriate engineering controls:** General exhaust ventilation should be adequate to maintain exposures below the occupational exposure limits.

**Personal Protective Equipment:**

**Respiratory protection:** If occupational exposure limits are exceeded, a dust filtering mask, an approved respirator with a dust/mist cartridge, or a supplied air respirator may be used. Respirator selection and use should be based on contaminant type, form and concentration. Follow applicable regulations and good Industrial Hygiene practice.

**Skin protection:** Suitable gloves are recommended as needed to avoid skin contact.

**Eye protection:** Chemical safety goggles or dust goggles are recommended if contact is possible.

**Other:** Eye wash should be available if contact may occur. Wear protective clothing as needed to prevent contact and contamination of personal clothing.

### Section 9. Physical and Chemical Properties

**Appearance:** Colored powder

**Odor:** Odorless

<b>Odor threshold:</b> Not available	<b>pH:</b> Not applicable
<b>Melting point/freezing point:</b> Not available	<b>Boiling Point:</b> Not applicable
<b>Flash point:</b> Not applicable	<b>Evaporation rate:</b> Not applicable
<b>Flammability (solid, gas):</b> Not available	
<b>Flammable limits: LEL:</b> Not applicable	<b>UEL:</b> Not applicable
<b>Vapor pressure:</b> Not applicable	<b>Vapor density:</b> Not applicable
<b>Relative density:</b> Not available	<b>Solubility(ies):</b> Not available
<b>Partition coefficient: n-octanol/water:</b> Not applicable	<b>Auto-ignition temperature:</b> Not available
<b>Decomposition temperature:</b> Not available	<b>Viscosity:</b> Not applicable

### Section 10. Stability and Reactivity

**Reactivity:** Not reactive under normal conditions of use.

**Chemical stability:** Stable under normal storage and handling conditions.

**Possibility of hazardous reactions:** Hazardous polymerization will not occur.

**Conditions to avoid:** Avoid hygroscopic conditions and dust formation.

**Incompatible materials:** Strong oxidizing agents, acids, and reducing agents.

**Hazardous decomposition products:** Thermal decomposition may release oxides of carbon, iron, manganese, and other metal compounds.

### Section 11. Toxicological Information

**Acute effects of exposure:**

**Inhalation:** Dust may cause upper respiratory irritation with sneezing and coughing.

**Skin contact:** Contact with dust may cause moderate skin irritation and mechanical (abrasive) irritation.

**Eye contact:** Direct contact with dust may cause severe eye irritation, redness and tearing with possible eye damage.

**Ingestion:** Swallowing large amounts may cause gastrointestinal irritation, nausea and diarrhea.

**Chronic effects:** Prolonged overexposure to Manganese have been shown to cause permanent neurological damage in humans. Excessive inhalation of respirable crystalline silica dust may cause may cause a progressive, disabling and sometimes fatal lung disease called silicosis. Symptoms include cough, shortness of breath, wheezing, non-specific chest illness and reduced pulmonary function.

**Germ Cell Mutagenicity:** None of the components have been shown to cause germ cell mutagenicity.

**Reproductive Toxicity:** None of the components have been shown to cause reproductive or developmental toxicity.

**Carcinogenicity:** Crystalline silica quartz is listed as "Carcinogenic to Humans" (Group 1) by IARC and "Known to be a Human Carcinogen" by NTP. None of the other components of this product are listed as carcinogens or suspected carcinogens by IARC, NTP, OSHA or ACGIH.

**Acute toxicity values:**

Product ATE: >2000 mg/kg

Potassium Sulfate: Oral rat LD50 >2000 mg/kg, Inhalation rat LC0 3.6 mg/m<sup>3</sup>, Dermal rat LD50 >2000 mg/kg

Magnesium Sulfate Heptahydrate: Oral rat LD50: >2000 mg/kg, Dermal rat LD50: >2000 mg/kg

Iron Oxide: Oral rat LD50: >5000 mg/kg

Iron Sulfate: Oral rat LD50: 500 mg/kg (point estimate)

Manganese Sulfate Monohydrate: Oral rat LD50: 2150 mg/kg, inhalation rat LC50: > 4.45 mg/L/4 hr (no mortality)

Manganese Oxide: Oral rat LD50: >2000 mg/kg, Inhalation rat LC50: >5.35 mg/L/4hr (no mortality)

Magnesium Oxide: Oral rat LD50: 3870 mg/kg, Inhalation rat LC50: >0.888 mg/L/4hr (no mortality)

Crystalline Silica-Quartz: Oral rat LD50: >22,500 mg/kg

<b>Section 12. Ecological Information</b>
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**Ecotoxicity Data:**

Potassium Sulfate: 96 hr LC50 Pimephales promelas 680 mg/L, 48 hr LC50 daphnia magna 720 mg/L

Magnesium Sulfate Heptahydrate: 96 hr LC50 Pimephales promelas 680 mg/L, 48 hr LC50 daphnia magna 720 mg/L, 72 hr EC50 Desmodesmus subspicatus 2700 mg/L

Manganese Sulfate Monohydrate: 96 hr LC50 Oncorhynchus mykiss 3.17 mg/L

Crystalline Silica-Quartz: 72 hr LC50 carp >10,000 mg/L

This product is expected to be harmful to aquatic life with long lasting effects. Releases to the environment should be avoided.

**Persistence and degradability:** Biodegradation is not applicable to inorganic compounds.

**Bioaccumulative potential:** Not data available.

**Mobility in soil:** No data available.

**Other adverse effects:** None known.

<b>Section 13. Disposal Considerations</b>
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Dispose in accordance with all local, state and federal regulations.

<b>Section 14. Transport Information</b>
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	UN Number	Proper shipping name	Hazard Class	Packing Group	Environmental Hazard
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<b>US DOT</b>		Not Regulated			
<b>Canadian TDG</b>		Not Regulated			
<b>EU ADR/RID</b>		Not Regulated			
<b>IMDG</b>		Not Regulated			
<b>IATA/ICAO</b>		Not Regulated			

**Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code):** Not applicable

**Special precautions:** None known

### Section 15. Regulatory Information

**CERCLA Hazardous Substances (Section 103)/RQ:** This product has an RQ of 6,666 lbs (based on the RQ of Iron Sulfate of 1,000 lbs). Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

**SARA Hazard Category (311/312):** Refer to Section 2 for OSHA Hazard Classification

**SARA 313 Information: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372):**

Manganese Sulfate Monohydrate (Manganese compounds)	10034-96-5	<10%
Manganese Oxide	1344-43-0	<5%

**California Proposition 65:**

This product can expose you to chemicals including Naphthalene and Crystalline Silica-Quartz, which are known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**US EPA TSCA Inventory:** All of the ingredients in this product are listed on the EPA TSCA Inventory or exempt.

### Section 16. Other Information

**SDS Revision History:** New SDS

**Date of preparation:** February 20, 2020

**Date of last revision:** None