



# Safety Data Sheet

GROWING SMARTER

Issue Date: 25-Sep-2020

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Version 1

## 1. IDENTIFICATION

### Product identifier

**Product Name** FERTI-FLOW

### Other means of identification

**SDS #** FERT-051

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

**Recommended Use** Fertilizer.

### Details of the supplier of the safety data sheet

#### **Supplier Address**

Fertizona Casa Grande LLC  
2850 South Peart Rd  
Casa Grande, AZ 85193  
www.fertizona.com  
Ph: 520-836-7477

### Emergency telephone number

**Emergency Telephone** INFOTRAC 1-352-323-3500 (International)  
1-800-535-5053 (North America)

## 2. HAZARDS IDENTIFICATION

**Appearance** Powder

**Physical state** Solid

**Odor** Mild

### Classification

This SDS was created using the criteria set forth by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200) and is compliant with the Globally Harmonized System of Labeling and Classification of Chemicals (GHS).

Serious eye damage/eye irritation	Category 1
Specific target organ toxicity (repeated exposure)	Category 2
Combustible dust	Combustible dust

### Signal Word

**Danger**

### Hazard statements

Causes serious eye damage  
May cause damage to organs through prolonged or repeated exposure  
May form combustible dust concentrations in air



**Precautionary Statements - Prevention**

Wear protective gloves/protective clothing/eye protection/face protection  
Do not breathe dust/fume/gas/mist/vapors/spray

**Precautionary Statements - Response**

Get medical advice/attention if you feel unwell  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
Immediately call a poison center or doctor/physician

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other hazards**

Toxic to aquatic life with long lasting effects

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Please also refer to subsequent sections of this SDS for additional information regarding the components of this product.

**Chemical Nature** Please see products label for more info.

Chemical name	CAS No	Weight-%
Proprietary Ingredients	PROPRIETARY	45-60
Zinc Oxide	1314-13-2	<15
Manganese Sulfate Monohydrate	10034-96-5	<10
Zinc sulfate	7446-19-7	<5
Sucrose	57-50-1	<5

\*\*If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.\*\*

### 4. FIRST AID MEASURES

**Description of first aid measures**

<b>General Advice</b>	Provide this SDS to medical personnel for treatment.
<b>Eye Contact</b>	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediate medical attention is required.
<b>Skin Contact</b>	Wash with plenty of water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation persists, call a physician.
<b>Inhalation</b>	Remove exposed individual(s) to fresh air for 20 minutes. Consult a physician/poison center if individual's condition declines or if symptoms persist.
<b>Ingestion</b>	Rinse mouth. Do NOT induce vomiting. Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person. Call a poison center or doctor/physician if you feel unwell.

**Most important symptoms and effects, both acute and delayed**

<b>Symptoms</b>	Causes serious eye damage. May cause skin irritation. May be harmful if swallowed. May cause nausea, vomiting, stomach ache, and diarrhea.
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**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician** Treat symptomatically.

**5. FIRE-FIGHTING MEASURES****Suitable Extinguishing Media**

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

**Unsuitable Extinguishing Media** Not determined.

**Specific Hazards Arising from the Chemical**

May form combustible dust mixtures with air.

**Hazardous combustion products** Carbon oxides.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

**Personal Precautions** Wear protective clothing as described in Section 8 of this safety data sheet. Ventilate area of leak or spill.

**Environmental precautions**

**Environmental precautions** Do not allow into any sewer, on the ground or into any body of water. See Section 12 for additional Ecological Information.

**Methods and material for containment and cleaning up**

**Methods for Containment** Prevent further leakage or spillage if safe to do so.

**Methods for Clean-Up** Avoid creating dust. Use only non-sparking tools. Use explosion proof equipment. Reclaim where possible. Sweep up and shovel into suitable containers for disposal. For waste disposal, see section 13 of the SDS.

**7. HANDLING AND STORAGE****Precautions for safe handling**

**Advice on Safe Handling** Avoid generation of dust. Wear eye/face protection. Wear protective gloves/protective clothing. Do not eat, drink or smoke when using this product. Use personal protection recommended in Section 8. Wash face, hands and any exposed skin thoroughly after handling. Use only in well ventilated areas. Observe precautions found on the label. Do not breathe dust.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in original container. Store at temperatures above 32°F.

**Incompatible Materials** Strong oxidizing agents. Strong acids. Strong bases.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Exposure Guidelines**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Zinc Oxide 1314-13-2	STEL: 10 mg/m <sup>3</sup> respirable particulate matter TWA: 2 mg/m <sup>3</sup> respirable particulate matter	TWA: 5 mg/m <sup>3</sup> fume TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) TWA: 5 mg/m <sup>3</sup> fume (vacated) TWA: 10 mg/m <sup>3</sup> total dust (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) STEL: 10 mg/m <sup>3</sup> fume	IDLH: 500 mg/m <sup>3</sup> Ceiling: 15 mg/m <sup>3</sup> dust TWA: 5 mg/m <sup>3</sup> dust and fume STEL: 10 mg/m <sup>3</sup> fume
Manganese Sulfate Monohydrate 10034-96-5	TWA: 0.02 mg/m <sup>3</sup> Mn respirable particulate matter TWA: 0.1 mg/m <sup>3</sup> Mn inhalable particulate matter	(vacated) Ceiling: 5 mg/m <sup>3</sup> Ceiling: 5 mg/m <sup>3</sup> Mn	IDLH: 500 mg/m <sup>3</sup> Mn TWA: 1 mg/m <sup>3</sup> Mn STEL: 3 mg/m <sup>3</sup> Mn
Sucrose 57-50-1	TWA: 10 mg/m <sup>3</sup>	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) TWA: 15 mg/m <sup>3</sup> total dust (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction	TWA: 10 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable dust

*NIOSH IDLH Immediately Dangerous to Life or Health*

**Appropriate engineering controls**

**Engineering Controls** Maintain eye wash fountain and quick-drench facilities in work area.

**Individual protection measures, such as personal protective equipment**

**Eye/Face Protection** Safety glasses as a minimum for protection. Refer to 29 CFR 1910.133 for eye and face protection regulations.

**Skin and Body Protection** Wear protective gloves and protective clothing. Refer to 29 CFR 1910.138 for appropriate skin and body protection.

**Respiratory Protection** If necessary, wear a MSHA/NIOSH-approved respirator. Refer to 29 CFR 1910.134 for respiratory protection requirements.

**General Hygiene Considerations** Avoid contact with skin, eyes and clothing. After handling this product, wash hands before eating, drinking, or smoking. If contact occurs, remove contaminated clothing. If needed, take first aid action shown on section 4 of this SDS. Launder contaminated clothing before reuse.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

<b>Physical state</b>	Solid	<b>Odor</b>	Mild
<b>Appearance</b>	Powder	<b>Odor Threshold</b>	Not determined
<b>Color</b>	Not determined		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	Not determined	
<b>Melting point / freezing point</b>	Not determined	
<b>Boiling point / boiling range</b>	Not determined	
<b>Flash point</b>	Not determined	

<b>Evaporation Rate</b>	Not determined
<b>Flammability (Solid, Gas)</b>	Not determined
<b>Flammability Limit in Air</b>	
<b>Upper flammability or explosive limits</b>	Not determined
<b>Lower flammability or explosive limits</b>	Not determined
<b>Vapor Pressure</b>	Not determined
<b>Vapor Density</b>	Not determined
<b>Relative Density</b>	Not determined
<b>Water Solubility</b>	Soluble in water
<b>Solubility in other solvents</b>	Not determined
<b>Partition Coefficient</b>	Not determined
<b>Autoignition temperature</b>	Not determined
<b>Decomposition temperature</b>	Not determined
<b>Kinematic viscosity</b>	Not determined
<b>Dynamic Viscosity</b>	Not determined
<b>Explosive Properties</b>	May form combustible dust mixtures with air.
<b>Oxidizing Properties</b>	Not determined

## 10. STABILITY AND REACTIVITY

### Reactivity

Not reactive under normal conditions.

### Chemical stability

Stable under recommended storage conditions.

### Possibility of hazardous reactions

None under normal processing.

### Conditions to Avoid

Keep out of reach of children. Avoid generation of dust. Heat, flames and sparks. Sources of ignition.

### Incompatible materials

Strong oxidizing agents. Strong acids. Strong bases.

### Hazardous decomposition products

None known based on information supplied.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

<b>Eye Contact</b>	Causes serious eye damage.
<b>Skin Contact</b>	Prolonged contact may cause redness and irritation.
<b>Inhalation</b>	May cause irritation if inhaled.
<b>Ingestion</b>	May cause nausea, vomiting, stomach ache, and diarrhea. May be harmful if swallowed.

**Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Zinc Oxide 1314-13-2	> 5000 mg/kg ( Rat )	-	-
Sucrose 57-50-1	= 29700 mg/kg ( Rat )	-	-

**Symptoms related to the physical, chemical and toxicological characteristics**

**Symptoms** Please see section 4 of this SDS for symptoms.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Carcinogenicity** Based on the information provided, this product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

**STOT - repeated exposure** May cause damage to organs through prolonged or repeated exposure.

**Numerical measures of toxicity**

The following values are calculated based on chapter 3.1 of the GHS document .

**Oral LD50** 2,283.30 mg/kg

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

Toxic to aquatic life with long lasting effects.

**Component Information**

Chemical name	Algae/aquatic plants	Fish	Crustacea
Zinc Oxide 1314-13-2		1.55: 96 h Danio rerio mg/L LC50 static	

**Persistence/Degradability**

Not determined.

**Bioaccumulation**

There is no data for this product.

**Mobility**

Not determined

**Other Adverse Effects**

Not determined

## 13. DISPOSAL CONSIDERATIONS

**Waste Treatment Methods**

**Disposal of Wastes** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated Packaging** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**California Hazardous Waste Status**

Chemical name	California Hazardous Waste Status
Zinc Oxide 1314-13-2	Toxic
Zinc sulfate 7446-19-7	Toxic

**14. TRANSPORT INFORMATION**

**Note** Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

**DOT** Not regulated

**IATA**  
**UN number** UN3077  
**Proper Shipping Name** Environmentally hazardous substances, solid, n.o.s. (Zinc Oxide, Zinc Sulfate)  
**Transport hazard class(es)** 9  
**Packing Group** III

**IMDG**  
**UN number** UN3077  
**Proper Shipping Name** Environmentally hazardous substances, solid, n.o.s. (Zinc Oxide, Zinc Sulfate)  
**Transport hazard class(es)** 9  
**Packing Group** III  
**Marine Pollutant** Yes

**15. REGULATORY INFORMATION**

**International Inventories**

Chemical name	TSCA	TSCA Inventory Status	DSL/NDSL	EINECS/ELI NCS	ENCS	IECSC	KECL	PICCS	AICS
Zinc Oxide	X	ACTIVE	X	X	X	X	X	X	X
Manganese Sulfate Monohydrate					X	X		X	X
Sucrose	X	ACTIVE	X	X		X	X	X	X
Zinc sulfate	X		X			X		X	X

**Legend:**

- TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
- ENCS** - Japan Existing and New Chemical Substances
- IECSC** - China Inventory of Existing Chemical Substances
- KECL** - Korean Existing and Evaluated Chemical Substances
- PICCS** - Philippines Inventory of Chemicals and Chemical Substances
- AICS** - Australian Inventory of Chemical Substances

**US Federal Regulations**

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	CAS No	Weight-%	SARA 313 - Threshold Values %
Zinc Oxide - 1314-13-2	1314-13-2	<15	1.0
Manganese Sulfate Monohydrate - 10034-96-5	10034-96-5	<10	1.0
Zinc sulfate - 7446-19-7	7446-19-7	<5	1.0

**CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Zinc Oxide		X		
Zinc sulfate		X		

**US State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

Chemical name	New Jersey	Massachusetts	Pennsylvania
Zinc Oxide 1314-13-2	X	X	X
Manganese Sulfate Monohydrate 10034-96-5	X		X
Sucrose 57-50-1		X	X
Zinc sulfate 7446-19-7	X		X

**16. OTHER INFORMATION**

<b>NFPA</b>	<b>Health Hazards</b>	<b>Flammability</b>	<b>Instability</b>	<b>Special Hazards</b>
	Not determined	Not determined	Not determined	Not determined
<b>HMIS</b>	<b>Health Hazards</b>	<b>Flammability</b>	<b>Physical hazards</b>	<b>Personal Protection</b>
	Not determined	Not determined	Not determined	Not determined

Issue Date: 25-Sep-2020  
 Revision Date: 26-Sep-2020  
 Revision Note: New product

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**