



# SAFETY DATA SHEET

Issuing Date 22-Jun-2015

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Revision Number 0

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

### GHS product identifier

Product Name TIGER MICRONUTRIENTS® Onion Mix

### Other means of identification

Synonyms Onion Mix, Sulphur

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

Recommended Use Plant nutrient fertilizer

Uses advised against No information available

### Supplier's details

**Supplier Address**  
228 Saugatuck Ave  
Westport, CT 06880 TEL:  
203-682-9200

**Manufacturer Address**  
Tiger-Sul Products  
25 Byrne Drive  
PO Box 5  
Atmore, AL 36504  
TEL: 251-202-3850

Sulphur/Tiger-Sul Products Plant  
65 Stork Road  
Stockton, CA 95203  
TEL: 209-943-0478

### Emergency telephone number


Emergency Telephone Number 800-239-3647  
CHEMTREC: (800) 424-9300 – 24 hours

## 2. HAZARDS IDENTIFICATION

### Classification

Acute Dermal Toxicity	Category 4
Skin Corrosion/Irritation	Category 2
Combustible Dust	Yes

**GHS Label elements, including precautionary statements****Emergency Overview**

<b>Signal Word</b>	<b>Warning</b>
<b>Hazard Statements</b>	
<ul style="list-style-type: none"> <li>• May be harmful if swallowed</li> <li>• Harmful in contact with skin</li> <li>• Causes skin irritation</li> <li>• May form combustible dust concentrations in air</li> </ul>	
	
<b>Appearance</b> Gray	<b>Physical State</b> Solid (compressed).
	<b>Odor</b> None

**Precautionary Statements****Prevention**

- Wear protective gloves/protective clothing/eye protection/face protection.
- Wash face, hands and any exposed skin thoroughly after handling.

**General Advice**

- Specific measures (see supplemental first aid instructions on this label)
- Specific treatment (see supplemental instructions on the administration of antidotes on this label)

**Skin**

- IF ON SKIN: Wash with plenty of soap and water.
- Call a POISON CENTER or doctor/physician if you feel unwell.
- If skin irritation occurs: Get medical advice/attention.
- Take off contaminated clothing and wash before reuse.

**Storage**

- None

**Disposal**

- Dispose of contents/container to an approved waste disposal plant.

**Hazard Not Otherwise Classified (HNOC)**

Not applicable

**Other information**

May cause irritation of respiratory tract. Contact with eyes may cause irritation. Powdered material may form explosive dust-air mixtures.

Toxic to aquatic life.

8.2% of the mixture consists of ingredient(s) of unknown toxicity.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms Onion Mix, Sulphur

Chemical Name	CAS-No	Weight %	Trade secret
Sulfur	7704-34-9	64-66	*
Zinc oxide	1314-13-2	13.505-14.007	*
Bentonite	1302-78-9	9-11	*
Manganese oxide (MnO)	1344-43-0	6.7-7.0	*
Black copper oxide	1317-38-0	2.1-2.5	*
Silicon dioxide	7631-86-9	0.3-0.5	*
Magnesium oxide	1309-48-4	0.03-0.5	*
Copper	7440-50-8	0.045-0.5	*
Iron	7439-89-6	0.40-0.45	*
Iron oxide	1309-37-1	0.2-0.4	*
Aluminum oxide	1344-28-1	0.1-0.3	*
Arsenic	7440-38-2	0.03-0.045	*
Lead	7439-92-1	0.025-0.028	*
Cadmium and compounds (as Cd)	7440-43-9	0.0145-0.015	*
Cobalt	7440-48-4	0.007-0.009	*
Calcium oxide	1305-78-8	0.0012-0.0014	*
Mercury	7439-97-6	0.00065-0.0007	*

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

### 4. FIRST AID MEASURES

#### Description of necessary first-aid measures

<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention if symptoms occur.
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water for at least 15 minutes while removing all contaminated clothing and shoes. Consult a physician.
<b>Inhalation</b>	Move to fresh air. Get medical attention if symptoms occur.
<b>Ingestion</b>	Do NOT induce vomiting. Clean mouth with water and afterwards drink plenty of water. Never give anything by mouth to an unconscious person. Consult a physician.

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

**Most Important Symptoms/Effects** Dermal irritation.

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

**Notes to Physician** Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

#### Suitable Extinguishing Media

Water spray or fog is preferred; if water not available use dry chemical, CO<sub>2</sub> or regular foam. Small fires may be smothered with sand.

**Unsuitable Extinguishing Media** Do not scatter spilled material with high pressure water streams.

#### Specific Hazards Arising from the Chemical

Avoid dust formation. Dust suspended in air is readily ignited by flames, static electricity or friction spark. Every reasonable step must be taken to minimize dust formation. Sulfur dioxide reacts with water to form sulfuric acid.

#### Explosion Data

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** Yes.

**Protective Equipment and Precautions for Firefighters**

Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight from a protected location or safe distance.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

**Personal Precautions** Ensure adequate ventilation. Avoid dust formation. Do not get in eyes. Use personal protective equipment. Remove all sources of ignition. Take precautionary measures against static discharges. Wash thoroughly after handling.

**Environmental Precautions**

**Environmental Precautions** Do not allow material to contaminate ground water system.

**Methods and materials for containment and cleaning up**

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

**Methods for Cleaning Up** Pick up and transfer to properly labeled containers.

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Handling** Ensure adequate ventilation. Do not get in eyes. Avoid dust formation in confined areas. Keep away from open flames, hot surfaces and sources of ignition. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Dust tight castings should be equipped with explosion relief vents. Sparkles electrical equipment is recommended.

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

**Storage** Keep in a dry, cool and well-ventilated place.

**Incompatible Products** Incompatible with oxidizing agents; Acids.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Control parameters**

**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Zinc oxide 1314-13-2	STEL: 10 mg/m <sup>3</sup> respirable fraction TWA: 2 mg/m <sup>3</sup> respirable fraction	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
Bentonite 1302-78-9	TWA: 1 mg/m <sup>3</sup> respirable fraction	-	-

Manganese oxide (MnO) 1344-43-0	TWA: 0.2 mg/m <sup>3</sup> Mn	(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
Black copper oxide 1317-38-0	TWA: 1 mg/m <sup>3</sup> Cu dust and mist	-	IDLH: 100 mg/m <sup>3</sup> Cu dust and mist TWA: 0.1 mg/m <sup>3</sup> Cu fume
Copper 7440-50-8	TWA: 0.2 mg/m <sup>3</sup> fume	TWA: 0.1 mg/m <sup>3</sup> fume TWA: 1 mg/m <sup>3</sup> dust and mist (vacated) TWA: 0.1 mg/m <sup>3</sup> Cu dust, fume, mist	IDLH: 100 mg/m <sup>3</sup> dust, fume and mist TWA: 1 mg/m <sup>3</sup> dust and mist TWA: 0.1 mg/m <sup>3</sup> fume
Silicon dioxide 7631-86-9	10 mg/m <sup>3</sup>	20 mppcf TWA; ((80))/(% SiO <sub>2</sub> ) mg/m <sup>3</sup> )	IDLH: 3000 mg/m <sup>3</sup> TWA: 6 mg/m <sup>3</sup>
Magnesium oxide 1309-48-4	TWA: 10 mg/m <sup>3</sup> inhalable fraction	TWA: 15 mg/m <sup>3</sup> fume, total particulate (vacated) TWA: 10 mg/m <sup>3</sup> fume and total particulate	IDLH: 750 mg/m <sup>3</sup> fume
Iron oxide 1309-37-1	TWA: 5 mg/m <sup>3</sup> respirable fraction	TWA: 10 mg/m <sup>3</sup> fume (vacated) TWA: 10 mg/m <sup>3</sup> fume	IDLH: 2500 mg/m <sup>3</sup> Fe dust and fume TWA: 5 mg/m <sup>3</sup> Fe dust and fume
Aluminum oxide 1344-28-1	TWA: 1 mg/m <sup>3</sup> respirable fraction	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> total dust (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction	-
Arsenic 7440-38-2	TWA: 0.01 mg/m <sup>3</sup>	TWA: 10 µg/m <sup>3</sup> As Action Level: 5 µg/m <sup>3</sup> As (vacated) TWA: 0.5 mg/m <sup>3</sup>	IDLH: 5 mg/m <sup>3</sup> Ceiling: 0.002 mg/m <sup>3</sup> 15 min
Lead 7439-92-1	TWA: 0.05 mg/m <sup>3</sup>	TWA: 50 µg/m <sup>3</sup> Action Level: 30 µg/m <sup>3</sup> Poison, See 29 CFR 1910.1025	IDLH: 100 mg/m <sup>3</sup> TWA: 0.050 mg/m <sup>3</sup>
Cadmium and compounds (as Cd) 7440-43-9	TWA: 0.01 mg/m <sup>3</sup> TWA: 0.002 mg/m <sup>3</sup> respirable fraction	TWA: 0.1 mg/m <sup>3</sup> fume applies to any operations or sectors for which the Cadmium standard is stayed or otherwise not in effect TWA: 0.2 mg/m <sup>3</sup> dust applies to any operations or sectors for which the Cadmium standard is stayed or otherwise not in effect TWA: 5 µg/m <sup>3</sup> Action Level: 2.5 µg/m <sup>3</sup> (vacated) STEL: 0.3 ppm fume Ceiling: 0.3 mg/m <sup>3</sup> fume applies to any operations or sectors for which the Cadmium standard is stayed or otherwise not in effect Ceiling: 0.6 mg/m <sup>3</sup> dust applies to any operations or sectors for which the Cadmium standard is stayed or otherwise not in effect	IDLH: 9 mg/m <sup>3</sup> dust
Cobalt 7440-48-4	TWA: 0.02 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup> dust and fume (vacated) TWA: 0.05 mg/m <sup>3</sup> dust and fume	IDLH: 20 mg/m <sup>3</sup> dust and fume TWA: 0.05 mg/m <sup>3</sup> dust and fume
Calcium oxide 1305-78-8	TWA: 2 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> (vacated) TWA: 5 mg/m <sup>3</sup>	IDLH: 25 mg/m <sup>3</sup> TWA: 2 mg/m <sup>3</sup>
Mercury 7439-97-6	TWA: 0.025 mg/m <sup>3</sup> S*	(vacated) TWA: 0.05 mg/m <sup>3</sup> vapor (vacated) STEL: 0.03 mg/m <sup>3</sup> (vacated) S* (vacated) Ceiling: 0.1 mg/m <sup>3</sup>	IDLH: 10 mg/m <sup>3</sup> Ceiling: 0.1 mg/m <sup>3</sup> TWA: 0.05 mg/m <sup>3</sup> vapor

**Appropriate engineering controls**

**Engineering Measures**

- Showers
- Eyewash stations
- Ventilation systems

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

<b>Eye/Face Protection</b>	Safety glasses with side-shields.
<b>Skin and Body Protection</b>	Long sleeved clothing. Impervious gloves.
<b>Respiratory Protection</b>	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
<b>Hygiene Measures</b>	Handle in accordance with good industrial hygiene and safety practice. Provide regular cleaning of equipment, work area and clothing.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Information on basic physical and chemical properties**

<b>Physical State</b>	Solid (compressed).	<b>Appearance</b>	Gray.
<b>Odor</b>	None.	<b>Odor Threshold</b>	No information available.

<u>Property</u>	<u>Values</u>	<u>Remarks/ - Method</u>
<b>pH</b>	No data available	None known
<b>Melting Point/Range</b>	119 °C	None known
<b>Boiling Point/Boiling Range</b>	444 °C	None known
<b>Flash Point</b>	188 °C	None known
<b>Evaporation rate</b>	No data available	None known
<b>Flammability (solid, gas)</b>	No data available	None known
<b>Flammability Limits in Air</b>		
upper flammability limit	1400 gm/m <sup>3</sup>	
lower flammability limit	35 gm/m <sup>3</sup>	
<b>Vapor Pressure</b>	No data available	None known
<b>Vapor Density</b>	No data available	None known
<b>Specific Gravity</b>	2.07	None known
<b>Water Solubility</b>	Negligible	None known
<b>Solubility in other solvents</b>	No data available	None known
<b>Partition coefficient: n-octanol/water</b>	No data available	None known
<b>Autoignition Temperature</b>	190 °C	None known
<b>Decomposition Temperature</b>	No data available	None known
<b>Viscosity</b>	Solid	None known

**Flammable Properties** Powdered material may form explosive dust-air mixtures.

**Explosive Properties** No data available  
**Oxidizing Properties** No data available

**Other information**

**VOC Content (%)** None

**10. STABILITY AND REACTIVITY****Reactivity**

No dangerous reaction known under conditions of normal use.

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

None under normal processing.  
Fine dust dispersed in air may ignite.

**Hazardous Polymerization**

Hazardous polymerization does not occur.

**Conditions to avoid**

Dust formation. Exposure to air or moisture.

**Incompatible materials**

Incompatible with oxidizing agents; Acids.

**Hazardous decomposition products**

Sulfur dioxide.

<b>11. TOXICOLOGICAL INFORMATION</b>
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**Information on likely routes of exposure****Product Information**

<b>Inhalation</b>	May cause irritation of respiratory tract.
<b>Eye Contact</b>	May cause irritation.
<b>Skin Contact</b>	May cause irritation. May be absorbed through the skin.
<b>Ingestion</b>	May cause irritation to the gastrointestinal tract.

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

**Symptoms** No information available.

**Delayed and immediate effects and also chronic effects from short and long term exposure**

**Sensitization** No information available.  
**Mutagenic Effects** No information available.  
**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Silicon dioxide		Group 3		
Iron oxide		Group 3		
Arsenic	A1	Group 1	Known	X
Lead	A3	Group 2A	Reasonably Anticipated	X
Cadmium and compounds (as Cd)	A2	Group 1	Known	X
Cobalt	A3	Group 2B	Reasonably Anticipated	X
Mercury		Group 3		

**ACGIH: (American Conference of Governmental Industrial Hygienists)**

A1 - Known Human Carcinogen  
A2 - Suspected Human Carcinogen  
A3 - Animal Carcinogen

**IARC: (International Agency for Research on Cancer)**

Group 1 - Carcinogenic to Humans  
 Group 2A - Probably Carcinogenic to Humans  
 Group 2B - Possibly Carcinogenic to Humans  
 Group 3 - Not Classifiable as to its Carcinogenicity to Humans

**NTP: (National Toxicity Program)**

Known - Known Carcinogen  
 Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

**OSHA: (Occupational Safety & Health Administration)**

X - Present

**Reproductive Toxicity**

No information available.

**STOT - single exposure**

No information available.

**STOT - repeated exposure**

No information available.

**Chronic Toxicity**

Bentonite contains naturally occurring crystalline silica. Crystalline silica (quartz) has been classified by the International Agency for Research on Cancer (IARC) as a known human carcinogen (Group 1).

**Target Organ Effects**

Eyes. Skin. Respiratory system. Blood. Kidney. Central nervous system (CNS).

**Aspiration Hazard**

No information available.

**Numerical measures of toxicity - Product**

**Acute Toxicity** 8.2% of the mixture consists of ingredient(s) of unknown toxicity.

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

**LD50 Oral** 3247 mg/kg; Acute toxicity estimate

**LD50 Dermal** 1667 mg/kg; Acute toxicity estimate

**Inhalation****dust/mist**

9.5 mg/L; Acute toxicity estimate

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

The environmental impact of this product has not been fully investigated.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Sulfur 7704-34-9	-	LC50: 866 mg/L Brachydanio rerio 96 h static LC50: <14 mg/L Lepomis macrochirus 96 h static LC50: >180 mg/L Oncorhynchus mykiss 96 h static	-	-
Zinc oxide 1314-13-2	Selenastrum capricornutum 72-hour EC50: 0.14 mg/l	Oncorhynchus mykiss 96-hour LC50: 0.14 mg/l		Daphnia magna 48-hour EC50: 0.07 mg/l
Bentonite 1302-78-9		LC50 96 h: 8.0-19.0 g/L (Salmo gairdneri) LC50 96 h: = 19000 mg/L static (Oncorhynchus mykiss)		



Copper 7440-50-8	EC50 96 h: 0.031 - 0.054 mg/L static (Pseudokirchneriella subcapitata) EC50 72 h: 0.0426 - 0.0535 mg/L static (Pseudokirchneriella subcapitata)	LC50 96 h: 0.0068 - 0.0156 mg/L (Pimephales promelas) LC50 96 h: < 0.3 mg/L static (Pimephales promelas) LC50 96 h: = 0.052 mg/L flow-through (Oncorhynchus mykiss) LC50 96 h: = 0.112 mg/L flow-through (Poecilia reticulata) LC50 96 h: = 0.2 mg/L flow-through (Pimephales promelas) LC50 96 h: = 0.3 mg/L semi-static (Cyprinus carpio) LC50 96 h: = 0.8 mg/L static (Cyprinus carpio) LC50 96 h: = 1.25 mg/L static (Lepomis macrochirus)	-	EC50 48 h: = 0.03 mg/L Static (Daphnia magna)
Silicon dioxide 7631-86-9	EC50 72 h: = 440 mg/L (Pseudokirchneriella subcapitata)	LC50 96 h: = 5000 mg/L static (Brachydanio rerio)	-	EC50 48 h: = 7600 mg/L (Ceriodaphnia dubia)
Iron 7439-89-6	-	LC50 96 h: = 0.56 mg/L semi-static (Cyprinus carpio) LC50 96 h: = 13.6 mg/L static (Morone saxatilis)	-	-
Aluminum oxide 1344-28-1	-	LC50 96 h: > 100 mg/L semistatic (Salmo trutta)	-	LC50 48 h: > 100 mg/L (daphnia magna)
Lead 7439-92-1	-	LC50 96 h: = 0.44 mg/L semi-static (Cyprinus carpio) LC50 96 h: = 1.17 mg/L flow-through (Oncorhynchus mykiss) LC50 96 h: = 1.32 mg/L static (Oncorhynchus mykiss)	-	EC50 48 h: = 600 µg/L (water flea)
Cadmium and compounds (as Cd) 7440-43-9	-	LC50 96 h: 0.0004-0.003 mg/L (Pimephales promelas) LC50 96 h: = 0.002 mg/L (Cyprinus carpio) LC50 96 h: = 0.003 mg/L flow-through (Oncorhynchus mykiss) LC50 96 h: = 0.006 mg/L static (Oncorhynchus mykiss) LC50 96 h: = 0.016 mg/L (Oryzias latipes) LC50 96 h: = 0.24 mg/L static (Cyprinus carpio) LC50 96 h: = 21.1 mg/L flow-through (Lepomis macrochirus) LC50 96 h: = 4.26 mg/L semi-static (Cyprinus carpio)	-	EC50 48 h: = 0.0244 mg/L Static (Daphnia magna)
Cobalt 7440-48-4	-	LC50 96 h: > 100 mg/L static (Brachydanio rerio)	-	-
Calcium oxide 1305-78-8	-	LC50 96 h: = 1070 mg/L static (Cyprinus carpio)	-	-
Mercury 7439-97-6	-	LC50 96 h: = 0.16 mg/L semi-static (Cyprinus carpio) LC50 96 h: = 0.18 mg/L static (Cyprinus carpio) LC50 96 h: = 0.5 mg/L (Cyprinus carpio) LC50 96 h: = 0.9 mg/L flow-through (Oryzias latipes)	-	EC50 96 h: = 5.0 µg/L (water flea)

**Persistence and Degradability** No information available.

**Bioaccumulation** No information available.

**Other Adverse Effects**

No information available.

### 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Methods**

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

**Contaminated Packaging**

Do not re-use empty containers.

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Arsenic - 7440-38-2		Included in waste streams: F032, F034, F035, F039, K031, K060, K084, K101, K102, K161, K171, K172, K176	5.0 mg/L regulatory level	
Lead - 7439-92-1	(hazardous constituent - no waste number)	Included in waste streams: F035, F037, F038, F039, K002, K003, K005, K046, K048, K049, K051, K052, K061, K062, K064, K065, K066, K069, K086, K100, K176	= 5.0 mg/L regulatory level	
Cadmium and compounds (as Cd) - 7440-43-9		Included in waste streams: F006, F039, K061, K069, K100	1.0 mg/L regulatory level	
Mercury - 7439-97-6	U151	Included in waste streams: F039, K071, K106, K175	0.2 mg/L regulatory level	U151

### 14. TRANSPORT INFORMATION

**DOT**

Not regulated

### 15. REGULATORY INFORMATION

**International Inventories**

**TSCA**

All components of this product are either listed or are exempt on the TSCA inventory.

**Legend**

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

**U.S. Federal Regulations**

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	14.007	1.0
Manganese oxide (MnO)	1344-43-0	7	1.0
Black copper oxide	1317-38-0	2.5	1.0
Arsenic	7440-38-2	0.045	0.1
Lead	7439-92-1	0.028	0.1
Cadmium and compounds (as Cd)	7440-43-9	0.015	0.1
Cobalt	7440-48-4	0.009	0.1
Mercury	7439-97-6	0.0007	0.1

**SARA 311/312 Hazard Categories**

<b>Acute Health Hazard</b>	Yes
<b>Chronic Health Hazard</b>	No
<b>Fire Hazard</b>	Yes
<b>Sudden Release of Pressure Hazard</b>	No
<b>Reactive Hazard</b>	No

**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		
Black copper oxide		X		
Copper		X	X	
Arsenic		X	X	
Lead		X	X	
Cadmium and compounds (as Cd)		X	X	
Mercury		X	X	

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Copper	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ
Arsenic	1 lb		RQ 1 lb final RQ RQ 0.454 kg final RQ
Lead	10 lb		RQ 10 lb final RQ RQ 4.54 kg final RQ
Cadmium and compounds (as Cd)	10 lb		RQ 10 lb final RQ RQ 4.54 kg final RQ
Mercury	1 lb		RQ 1 lb final RQ RQ 0.454 kg final RQ

**U.S. State Regulations****California Proposition 65**

This product contains the following Proposition 65 chemicals:

Chemical Name	CAS-No	California Prop. 65
Arsenic	7440-38-2	Carcinogen
Lead	7439-92-1	Carcinogen Developmental Female Reproductive Male Reproductive
Cadmium and compounds (as Cd)	7440-43-9	Carcinogen Developmental Male Reproductive
Cobalt	7440-48-4	Carcinogen
Mercury	7439-97-6	Developmental

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

"X" designates that the ingredients are listed on the state right to know list.

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Illinois	Rhode Island
Sulfur	X	X	X		X
Zinc oxide	X	X	X		
Manganese oxide (MnO)			X	X	
Black copper oxide			X		

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. OTHER INFORMATION**

<b><u>NFPA</u></b>	Health Hazard 1	Flammability 1	Instability 0	Physical and Chemical Hazards -
<b><u>HMIS</u></b>	Health Hazard 1	Flammability 1	Physical Hazard 0	Personal Protection X

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**General Disclaimer**

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**End of Safety Data Sheet**