

# SAFETY DATA SHEET

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

### Product identifier

**Product Name** Hibisgain

### Other means of identification

**Synonyms** None

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

**Recommended Use** Fertilizer

**Uses advised against** No information available

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

**Supplier Name** Bougainvillea Growers Intl

**Supplier Address** 7401 Stringfellow Road  
Saint James City  
Florida  
33956  
US

**Supplier Phone Number** Phone:954-415-2887  
Fax:561-424-8005  
Contact Phone561-374-9216

**Supplier Email** bgi-accounting@bgi-usa.com

### Emergency telephone number

## 2. HAZARDS IDENTIFICATION

### Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

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

### GHS Label elements, including precautionary statements



## Emergency Overview

Signal word	Warning		
<b>Hazard Statements</b>			
Causes serious eye irritation			
May cause damage to organs through prolonged or repeated exposure			
			
<b>Appearance</b>	Tan and white with black particles	<b>Physical state</b>	Granular Solid
		<b>Odor</b>	Slight sulfur

**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
 Wear protective gloves/protective clothing/eye protection/face protection  
 Do not breathe dust/fume/gas/mist/vapors/spray  
 Wear eye/face protection

**Precautionary Statements - Response**

Get medical advice/attention if you feel unwell

**Eyes**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 If eye irritation persists: Get medical advice/attention

**Precautionary Statements - Storage**

None

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Not applicable

**Unknown Toxicity**

47.36% of the mixture consists of ingredient(s) of unknown toxicity

**Other information**

May be harmful if swallowed  
 Causes mild skin irritation  
 Toxic to aquatic life with long lasting effects  
 Harmful to aquatic life

**Interactions with Other Chemicals**

Use of alcoholic beverages may enhance toxic effects.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%	Trade Secret
Ammonium sulfate	7783-20-2	1 - 5	*
Ferrous sulfate heptahydrate	7782-63-0	1 - 5	*
Manganese(II) sulfate	7785-87-7	1 - 5	*
Copper (II) sulfate pentahydrate (1:1:5)	7758-99-8	0.1 - 1	*
Zinc sulfate	7446-19-7	0.1 - 1	*

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

### 4. FIRST AID MEASURES

#### First aid measures

##### General Advice

Show this safety data sheet to the doctor in attendance.

##### Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.

##### Skin contact

Wash with soap and water.

##### Inhalation

Remove to fresh air.

##### Ingestion

Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.

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

**Most Important Symptoms and Effects** Burning sensation.

#### 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

CAUTION: Use of water spray when fighting fire may be inefficient.

### Specific hazards arising from the chemical

No information available.

### Hazardous Combustion Products

Carbon oxides.

### Explosion Data

**Sensitivity to Mechanical Impact**      No.

**Sensitivity to Static Discharge**      No.

### 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**      Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Ensure adequate ventilation. Evacuate personnel to safe areas.

**Other Information**      Refer to protective measures listed in Sections 7 and 8.

### Environmental precautions

**Environmental precautions**      Do not flush into surface water or sanitary sewer system. Prevent product from entering drains.

### Methods and material 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** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with eyes. Do not ingest. If swallowed then seek immediate medical assistance.

### Conditions for safe storage, including any incompatibilities

**Storage** Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers.

**Incompatible Products** None known based on information supplied.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ferrous sulfate heptahydrate 7782-63-0	TWA: 1 mg/m <sup>3</sup> Fe	(vacated) TWA: 1 mg/m <sup>3</sup> Fe	TWA: 1 mg/m <sup>3</sup> Fe
Manganese(II) sulfate 7785-87-7	TWA: 0.02 mg/m <sup>3</sup> Mn TWA: 0.1 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
Copper (II) sulfate pentahydrate (1:1:5) 7758-99-8	TWA: 1 mg/m <sup>3</sup> Cu dust and mist	-	IDLH: 100 mg/m <sup>3</sup> Cu dust and mist TWA: 1 mg/m <sup>3</sup> Cu dust and mist

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits Immediately Dangerous to Life or Health

**Other Exposure Guidelines** See section 15 for national exposure control parameters

### Appropriate engineering controls

**Engineering Measures** Showers  
Eyewash stations  
Ventilation systems

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

**Eye/face protection** If splashes are likely to occur. Wear safety glasses with side shields (or goggles). None required for consumer use.

**Skin and body protection** Wear protective gloves and protective clothing.

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical and Chemical Properties**

<b>Physical state</b>	Granular, Solid	<b>Odor</b>	Slight sulfur
<b>Appearance</b>	Tan and white with black particles	<b>Odor Threshold</b>	No information available
<b>Color</b>	No information available		

<u>Property</u>	<u>Values</u>	<u>Remarks</u>	<u>Method</u>
<b>pH</b>	No data available	None known	
<b>Melting / freezing point</b>	No data available	None known	
<b>Boiling point / boiling range</b>	No data available	None known	
<b>Flash Point</b>	No data available	None known	
<b>Evaporation Rate</b>	No data available	None known	
<b>Flammability (solid, gas)</b>	No data available	None known	
<b>Flammability Limit in Air</b>			
<b>Upper flammability limit</b>	No data available		
<b>Lower flammability limit</b>	No data available		
<b>Vapor pressure</b>	No data available	None known	
<b>Vapor density</b>	No data available	None known	
<b>Specific Gravity</b>	No data available	None known	
<b>Water Solubility</b>	Soluble in water	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>	No data available	None known	
<b>Decomposition temperature</b>	No data available	None known	
<b>Kinematic viscosity</b>	No data available	None known	
<b>Dynamic viscosity</b>	No data available	None known	
<b>Explosive properties</b>	No data available		
<b>Oxidizing properties</b>	No data available		

**Other Information**

<b>Softening Point</b>	No data available
<b>VOC Content (%)</b>	No data available
<b>Particle Size</b>	No data available
<b>Particle Size Distribution</b>	

## 10. STABILITY AND REACTIVITY

**Reactivity**

No data available.

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Hazardous Polymerization**

Hazardous polymerization does not occur.

**Conditions to avoid**

None known based on information supplied.

**Incompatible materials**

None known based on information supplied.

**Hazardous Decomposition Products**

Carbon oxides.

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure****Product Information**

<b>Inhalation</b>	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available. Expected to be an irritant based on components. May cause redness, itching, and pain. May cause temporary eye irritation.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available. May cause irritation. Prolonged contact may cause redness and irritation.
<b>Ingestion</b>	Specific test data for the substance or mixture is not available. Ingestion may cause irritation to mucous membranes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

**Component Information**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Ammonium sulfate 7783-20-2	= 2000 mg/kg ( Rat )	-	-
Ferrous sulfate heptahydrate 7782-63-0	= 237 mg/kg ( Rat )	-	-
Manganese(II) sulfate 7785-87-7	= 2150 mg/kg ( Rat )	-	-
Copper (II) sulfate pentahydrate (1:1:5) 7758-99-8	= 300 mg/kg ( Rat )	= 1000 mg/kg ( Rabbit )	-
Zinc sulfate 7446-19-7	= 500 mg/kg ( Rat )	-	-

**Information on toxicological effects**

**Symptoms** May cause redness and tearing of the eyes.

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

<b>Sensitization</b>	No information available.
<b>Mutagenic Effects</b>	No information available.
<b>Carcinogenicity</b>	Contains no ingredient listed as a carcinogen.
<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	Causes damage to organs through prolonged or repeated exposure. Based on classification criteria from the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200), this product has been determined to cause systemic target organ toxicity from chronic or repeated exposure. (STOT RE).
<b>Chronic Toxicity</b>	Avoid repeated exposure. Prolonged exposure may cause chronic effects. May cause adverse effects on the bone marrow and blood-forming system. May cause adverse liver

effects.

**Target Organ Effects**

Eyes. Blood. Central Nervous System (CNS). Gastrointestinal tract (GI). Kidney. Liver. Respiratory system. Skin.

**Aspiration Hazard**

No information available.

**Numerical measures of toxicity Product Information**

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

**ATEmix (oral)**

3,905.00 mg/kg

**12. ECOLOGICAL INFORMATION****Ecotoxicity**

Harmful to aquatic life. Toxic to aquatic life with long lasting effects.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Ammonium sulfate 7783-20-2		96h LC50: = 250 mg/L (Brachydanio rerio) 96h LC50: = 480 mg/L (Brachydanio rerio) 96h LC50: = 18 mg/L (Cyprinus carpio) 96h LC50: = 420 mg/L (Brachydanio rerio) 96h LC50: 32.2 - 41.9 mg/L (Oncorhynchus mykiss) 96h LC50: 5.2 - 8.2 mg/L (Oncorhynchus mykiss) 96h LC50: > 100 mg/L (Pimephales promelas) 96h LC50: 123 - 128 mg/L (Poecilia reticulata) 96h LC50: = 126 mg/L (Poecilia reticulata) 96h LC50: 460 - 1000 mg/L (Leuciscus idus)		48h LC50: = 14 mg/L 24h EC50: = 423 mg/L
Copper (II) sulfate pentahydrate (1:1:5) 7758-99-8		96h LC50: 0.66 - 1.15 mg/L (Lepomis macrochirus) 96h LC50: 0.1478 - 0.165 mg/L (Oncorhynchus mykiss) 96h LC50: 0.09 - 0.19 mg/L (Oncorhynchus mykiss) 96h LC50: 0.96 - 1.8 mg/L (Lepomis macrochirus) 96h LC50: = 0.6752 mg/L (Pimephales promelas)	EC50 < 0.25 mg/L 30 min EC50 = 0.25 mg/L 15 min EC50 = 1.3 mg/L 5 min	48h EC50: 0.147 - 0.227 mg/L

**Persistence and Degradability**

No information available.

**Bioaccumulation**

Chemical Name	Log Pow
Ammonium sulfate 7783-20-2	-5.1

**Other adverse effects**

No information available.

**13. DISPOSAL CONSIDERATIONS**

**Waste treatment methods**

**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**

Dispose of contents/containers in accordance with local regulations.

**California Hazardous Waste Codes 181**

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste
Copper (II) sulfate pentahydrate (1:1:5) 7758-99-8	Toxic
Zinc sulfate 7446-19-7	Toxic

**14. TRANSPORT INFORMATION**

**DOT**  
Proper Shipping Name  
Hazard Class

NOT REGULATED  
NON REGULATED  
N/A

**TDG**

Not regulated

**MEX**

Not regulated

**ICAO**

Not regulated

**IATA**

Proper Shipping Name  
Hazard Class

Not regulated  
NON REGULATED  
N/A

**IMDG/IMO**

Hazard Class  
Marine Pollutant

Not regulated  
N/A  
Product is a marine pollutant according to the criteria set by IMDG/IMO

**RID**

Not regulated

**ADR**

Not regulated

**ADN**

Not regulated

**15. REGULATORY INFORMATION**

**International Inventories**

TSCA  
DSL

Complies  
All components are listed either on the DSL or NDSL.



TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

## US Federal Regulations

### 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 %
Ammonium sulfate - 7783-20-2	7783-20-2	1 - 5	1.0
Manganese(II) sulfate - 7785-87-7	7785-87-7	1 - 5	1.0
Copper (II) sulfate pentahydrate (1:1:5) - 7758-99-8	7758-99-8	0.1 - 1	1.0
Zinc sulfate - 7446-19-7	7446-19-7	0.1 - 1	1.0

### SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

### 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
Ferrous sulfate heptahydrate 7782-63-0	1000 lb			X
Copper (II) sulfate pentahydrate (1:1:5) 7758-99-8	10 lb	X		X
Zinc sulfate 7446-19-7	1000 lb	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
Ferrous sulfate heptahydrate 7782-63-0	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ
Copper (II) sulfate pentahydrate (1:1:5) 7758-99-8	10 lb		RQ 10 lb final RQ RQ 4.54 kg final RQ
Zinc sulfate 7446-19-7	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ

## 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	Rhode Island	Illinois
Nitrogen 7727-37-9	X	X	X		-



Sulfur 7704-34-9	X	X	X		
Potassium 7440-09-7	X	X	X		
Magnesium 7439-95-4	X	X	X		
Manganese 7439-96-5	X	X	X	X	X

### International Regulations

#### Mexico

##### National occupational exposure limits

Component	Carcinogen Status	Exposure Limits
Ferrous sulfate heptahydrate 7782-63-0 ( 1 - 5 )		Mexico: TWA 1 mg/m <sup>3</sup> Mexico: STEL 2 mg/m <sup>3</sup>
Manganese(II) sulfate 7785-87-7 ( 1 - 5 )		Mexico: TWA 0.2 mg/m <sup>3</sup>

Mexico - Occupational Exposure Limits - Carcinogens

#### Canada

##### WHMIS Hazard Class

D2B - Toxic materials



## 16. OTHER INFORMATION

<b>NFPA</b>	<b>Health Hazards</b> 2	<b>Flammability</b> 0	<b>Instability</b> 0	<b>Physical and Chemical Hazards</b> W <b>Personal Protection</b> X
<b>HMIS</b>	<b>Health Hazards</b> 2 *	<b>Flammability</b> 0	<b>Physical Hazard</b> 0	

**Chronic Hazard Star Legend** \* = Chronic Health Hazard

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#### Disclaimer

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**End of Safety Data Sheet**