Issuing Date 05-May-2015 Revision Date 05-May-2015 Revision Number 3



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

Product identifier

Product Name Bougain

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 1



Revision Date 05-May-2015 1148115 - Bougain

GHS Label elements, including precautionary statements

Emergency Overview

Signal word

Danger

Hazard Statements

Causes serious eye damage



particles

Appearance Tan and white with black

Physical state Granular Solid

Odor Slight sulfur

Precautionary Statements - Prevention

Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

Eyes

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 - Storage

None

Precautionary Statements - Disposal

Hazards not otherwise classified (HNOC)

Not applicable

Unknown Toxicity

64.83% of the mixture consists of ingredient(s) of unknown toxicity

Other information

May be harmful if swallowed Causes mild skin irritation

Interactions with Other Chemicals

No information available.



3. COMPOSITION/INFORMATION ON INGREDIENTS

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Chemical Name	CAS No	Weight-%	Trade Secret
Superphosphates, concd.	65996-95-4	3 - 7	*
Ferrous sulfate heptahydrate	7782-63-0	1 - 5	*
Copper oxide	1317-38-0	0.1 - 1	*
Zinc oxide	1314-13-2	0.1 - 1	*

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

4. FIRST AID MEASURES

First aid measures

<u>General Advice</u> Immediate medical attention is required. 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. Keep eye wide open while rinsing. Do not rub affected area. Seek

immediate medical attention/advice.

Skin contact Wash off immediately with soap and plenty of water for at least 15 minutes. Get

medical attention if irritation develops and persists.

Inhalation Remove to fresh air. Get medical attention immediately if symptoms occur.

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.

Self-protection of the first aider Avoid contact with skin, eyes or clothing. Use personal protective equipment as

required. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed

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

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.

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.

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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 Strong oxidizing agents. Strong acids. Strong bases.

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 ³ Fe	(vacated) TWA: 1 mg/m³ Fe	TWA: 1 mg/m ³ Fe
Copper oxide 1317-38-0	TWA: 1 mg/m ³ Cu dust and mist	-	IDLH: 100 mg/m³ Cu dust and mist TWA: 0.1 mg/m³ Cu fume
Zinc oxide 1314-13-2	STEL: 10 mg/m³ respirable fraction TWA: 2 mg/m³ respirable fraction	TWA: 5 mg/m³ fume TWA: 15 mg/m³ total dust TWA: 5 mg/m³ respirable fraction (vacated) TWA: 5 mg/m³ fume (vacated) TWA: 10 mg/m³ total dust (vacated) TWA: 5 mg/m³ respirable fraction (vacated) STEL: 10 mg/m³ fume	IDLH: 500 mg/m³ Ceiling: 15 mg/m³ dust TWA: 5 mg/m³ dust and fume STEL: 10 mg/m³ fume

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 Tight sealing safety goggles.

Skin and body protectionWear 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.

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

Physical state Granular, Solid

Appearance Tan and white with black particles Odor Slight sulfur

ColorNo information availableOdor ThresholdNo information available

Property Values Remarks Method Hq No data available None known Melting / freezing point No data available None known Boiling point / boiling range No data available None known Flash Point No data available None known **Evaporation Rate** No data available None known Flammability (solid, gas) No data available None known Flammability Limit in Air **Upper flammability limit** No data available Lower flammability limit No data available Vapor pressure No data available None known Vapor density No data available None known **Specific Gravity** No data available None known **Water Solubility** None known Solubility in other solvents No data available None known Partition coefficient: n-octanol/waterNo data available None known **Autoignition temperature** No data available None known **Decomposition temperature** No data available None known Kinematic viscosity No data available None known **Dynamic viscosity** No data available None known **Explosive properties** No data available **Oxidizing properties** No data available

Other Information

Softening Point
VOC Content (%)
Particle Size
No data available
No data available
No data available

Particle Size Distribution

(II)

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

Strong oxidizing agents. Strong acids. Strong bases.

Hazardous Decomposition Products

Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available. May cause irritation of

respiratory tract.

Eye contact Specific test data for the substance or mixture is not available. Severely irritating to eyes.

Causes serious eye damage. May cause burns. May cause irreversible damage to eyes.

Skin contact Specific test data for the substance or mixture is not available. May cause irritation.

Prolonged contact may cause redness and irritation.

Ingestion 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
Ferrous sulfate heptahydrate	= 237 mg/kg (Rat)	-	-
7782-63-0			
Zinc oxide	> 5000 mg/kg (Rat)	-	-
1314-13-2			

Information on toxicological effects

Symptoms Erythema (skin redness). May cause blindness. Burning.

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



Sensitization No information available.

Mutagenic Effects No information available.

Carcinogenicity Contains no ingredient listed as a carcinogen.

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposureNo information available.

Chronic Toxicity No known effect based on information supplied. May cause adverse liver effects.

Target Organ Effects Eyes. Gastrointestinal tract (GI). 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)

2,614.00 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

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

Persistence and Degradability

No information available.

Bioaccumulation

No information available

Other adverse effects

No information available.

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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 PackagingDispose of contents/containers in accordance with local regulations.

California Hazardous Waste Codes 331

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 oxide 1317-38-0	Toxic
Zinc oxide 1314-13-2	Toxic

14. TRANSPORT INFORMATION

DOT NOT REGULATED
Proper Shipping Name NON REGULATED

Hazard Class N/A

TDG Not regulated

MEX Not regulated

ICAO Not regulated

 IATA
 Not regulated

 Proper Shipping Name
 NON REGULATED

Hazard Class N/A

IMDG/IMO Not regulated

Hazard Class N/A

Marine Pollutant 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 Complies

DSL 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 %
Copper oxide - 1317-38-0	1317-38-0	0.1 - 1	1.0
Zinc oxide - 1314-13-2	1314-13-2	0.1 - 1	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
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				X
Copper oxide 1317-38-0		Х		
Zinc oxide 1314-13-2		Х		

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

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

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Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Potassium	X	X	Χ		
7440-09-7					
Nitrogen	X	X	X		-
7727-37-9					
Manganese	X	X	X	X	Χ
7439-96-5					



Zinc	Χ	Χ	Χ	Χ	
7440-66-6		* *	• •	• •	
7440-66-6					

International Regulations

Mexico

National occupational exposure limits

Component	Carcinogen Status	Exposure Limits
Ferrous sulfate heptahydrate		Mexico: TWA 1 mg/m ³
7782-63-0 (1 - 5)		Mexico: STEL 2 mg/m ³
Zinc oxide		Mexico: TWA 5 mg/m ³
1314-13-2 (0.1 - 1)		Mexico: TWA 10 mg/m ³
		Mexico: STEL 10 mg/m ³

Mexico - Occupational Exposure Limits - Carcinogens

Canada

WHMIS Hazard Class

D2B - Toxic materials



16. OTHER INFORMATION

NFPA Health Hazards 3 Flammability 0 Instability 0 Physical and

Chemical Hazards

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HMIS Health Hazards 3 Flammability 0 Physical Hazard 0 Personal Protection

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Prepared By Product Stewardship

23 British American Blvd. Latham, NY 12110

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Revision Note No information available

Disclaimer

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End of Safety Data Sheet