

SAFETY DATA SHEET

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

Product identifier

Product Name Rosegain

Other means of identification

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Plant food

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:561-374-9216
Fax:561-424-8005

Supplier Email bgi-accounting@bgi-usa.com

Emergency telephone number

Company Emergency Phone Number 954-415-2887

2. HAZARDS IDENTIFICATION


Classification

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

Acute toxicity - Oral	Category 4
Serious eye damage/eye irritation	Category 1
Specific target organ toxicity (repeated exposure)	Category 2



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

Signal word	Danger		
Hazard Statements Harmful if swallowed Causes serious eye damage May cause damage to organs through prolonged or repeated exposure			
			
Appearance Tan and white with black particles	Physical state Granular Solid	Odor Slight sulfur	

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 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

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

Ingestion

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
 Rinse mouth

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

33 % of the mixture consists of ingredient(s) of unknown toxicity

Other information

Causes mild skin irritation

Toxic to aquatic life with long lasting effects

Interactions with Other Chemicals

No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%	Trade Secret
Potassium Chloride	7447-40-7	3 - 7	*
Ferrous sulfate heptahydrate	7782-63-0	3 - 7	*
Ammonium sulfate	7783-20-2	3 - 7	*
Sodium iron(III) ethylenetetraacetate	15708-41-5	1 - 5	*
Ferrate(2-), [N,N-bis[2-[bis(carboxymethyl)amino]ethyl]glycinato (5-)]-, sodium hydrogen, (PB-7-13-12564)-	12389-75-2	1 - 5	*
Zinc sulfate	7446-19-7	1 - 5	*
Manganese(II) sulfate	7785-87-7	1 - 5	*
Copper (II) sulfate pentahydrate (1:1:5)	7758-99-8	1 - 5	*

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

4. FIRST AID MEASURES

First aid measures

General Advice

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 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.

Uniform Fire Code

Toxic: Solid
Irritant: Solid

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

Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so.

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 skin, eyes or clothing. Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children.

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/m ³ Fe	TWA: 1 mg/m ³ Fe
Sodium iron(III) ethylenetetraacetate 15708-41-5	TWA: 1 mg/m ³ Fe	(vacated) TWA: 1 mg/m ³ Fe	TWA: 1 mg/m ³ Fe
Ferrate(2-), [N,N-bis[2-[bis(carboxymethyl)amino]ethyl]glycyl]amino]sulfate(5-), sodium hydrogen, (PB-7-13-12564)- 12389-75-2	TWA: 1 mg/m ³ Fe	(vacated) TWA: 1 mg/m ³ Fe	TWA: 1 mg/m ³ Fe
Manganese(II) sulfate 7785-87-7	TWA: 0.02 mg/m ³ Mn TWA: 0.1 mg/m ³ Mn	(vacated) Ceiling: 5 mg/m ³ Ceiling: 5 mg/m ³ Mn	IDLH: 500 mg/m ³ Mn TWA: 1 mg/m ³ Mn STEL: 3 mg/m ³ Mn
Copper (II) sulfate pentahydrate (1:1:5) 7758-99-8	TWA: 1 mg/m ³ Cu dust and mist	-	IDLH: 100 mg/m ³ Cu dust and mist TWA: 1 mg/m ³ 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 NIOSH IDLH Immediately Dangerous to Life or Health

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 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. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or

smoke when using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

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

<u>Property</u>	<u>Values</u>	<u>Remarks</u>	<u>Method</u>
pH	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	Slightly soluble	None known	
Solubility in other solvents	No data available	None known	
Partition coefficient: n-octanol/water	No 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	No data available
VOC Content (%)	No data available
Particle Size	No data available
Particle Size Distribution	

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. Causes serious eye damage. (based on components). Severely irritating to eyes. 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. Harmful if swallowed. (based on components).

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Potassium Chloride 7447-40-7	= 2600 mg/kg (Rat)	-	-
Ferrous sulfate heptahydrate 7782-63-0	= 237 mg/kg (Rat)	-	-
Ammonium sulfate 7783-20-2	= 2000 mg/kg (Rat)	-	-
Zinc sulfate 7446-19-7	= 500 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)	-

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 exposure	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).

Chronic Toxicity

No known effect based on information supplied.

Target Organ Effects

Eyes.

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)

1,883.00 mg/kg

ATEmix (dermal)

22,333.00 mg/kg (ATE)

ATEmix (inhalation-dust/mist)

25.13 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life with long lasting effects.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Potassium Chloride 7447-40-7	72h EC50: = 2500 mg/L (Desmodesmus subspicatus)	96h LC50: 750 - 1020 mg/L (Pimephales promelas) 96h LC50: = 1060 mg/L (Lepomis macrochirus)		48h EC50: = 825 mg/L 48h EC50: = 83 mg/L
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 141

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

Chemical Name	California Hazardous Waste
Zinc sulfate 7446-19-7	Toxic
Copper (II) sulfate pentahydrate (1:1:5) 7758-99-8	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	3 - 7	1.0
Zinc sulfate - 7446-19-7	7446-19-7	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	1 - 5	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
Zinc sulfate 7446-19-7	1000 lb	X		X
Copper (II) sulfate pentahydrate (1:1:5) 7758-99-8	10 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
Zinc sulfate 7446-19-7	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

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
Diammonium phosphate 7783-28-0				X	
Ferrous sulfate heptahydrate	X	X	X	X	



7782-63-0					
Ammonium sulfate 7783-20-2		X	X	X	
Copper (II) sulfate pentahydrate (1:1:5) 7758-99-8	X	X	X	X	
Zinc sulfate 7446-19-7	X	X	X	X	

International Regulations

Mexico

National occupational exposure limits

Component	Carcinogen Status	Exposure Limits
Ferrous sulfate heptahydrate 7782-63-0 (3 - 7)		Mexico: TWA 1 mg/m ³ Mexico: STEL 2 mg/m ³
Sodium iron(III) ethylenetetraacetate 15708-41-5 (1 - 5)		Mexico: TWA 1 mg/m ³ Mexico: STEL 2 mg/m ³
Ferrate(2-), [N,N-bis[2-[bis(carboxymethyl)amino]ethyl]glycinato(5-)] -, sodium hydrogen, (PB-7-13-12564)- 12389-75-2 (1 - 5)		Mexico: TWA 1 mg/m ³ Mexico: STEL 2 mg/m ³
Manganese(II) sulfate 7785-87-7 (1 - 5)		Mexico: TWA 0.2 mg/m ³

Mexico - Occupational Exposure Limits - Carcinogens

Canada

WHMIS Hazard Class

Not determined

16. OTHER INFORMATION

NFPA	Health Hazards 2	Flammability 0	Instability 0	Physical and Chemical Hazards - Personal Protection X
HMIS	Health Hazards 3 *	Flammability 0	Physical Hazard 0	

Chronic Hazard Star Legend * = Chronic Health Hazard

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Revision Note No information available

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

