

Safety Data Sheet

Issue Date: 04-May-2015

Revision Date: 27-Apr-2016

Version 2

1. IDENTIFICATION

Product Identifier

Product Name Intracept

Other means of identification

SDS # FFN: 00442

Recommended use of the chemical and restrictions on use

Recommended Use Plant Nutrients.

Details of the supplier of the safety data sheet

Supplier Address

Verdesian Life Sciences, U.S., LLC.
1001 Winstead Drive, Suite 480
Cary, NC 27513

Emergency Telephone Number

Company Phone Number Business Phone: (800) 868-6446
Fax Phone: (919) 535-3652
Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance Dark brown liquid **Physical State** Liquid **Odor** Sweet

Classification

Serious eye damage/eye irritation	Category 2
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Signal Word

Warning

Hazard Statements

Causes serious eye irritation



Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Wear eye/face protection

Precautionary Statements - Response

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

Other Hazards

Harmful to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Citric Acid	77-92-9	1-10
Magnesium sulfate	10034-99-8	1-5
Copper sulfate	7758-99-8	1-5
Ferrous sulfate	7720-78-7	1-5
Manganese sulfate	7758-87-7	1-5
Zinc sulfate	7446-19-7	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

First Aid Measures

General Advice	Provide this SDS to medical personnel for treatment.
Eye Contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Seek immediate medical attention/advice.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
Inhalation	Remove exposed individual(s) to fresh air for 20 minutes. Consult a physician / poison center if individual's condition declines or if symptoms persist.
Ingestion	Do not induce vomiting. Induce vomiting only if advised by medical personnel. Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.

Most important symptoms and effects

Symptoms	May cause discomfort if swallowed. May cause skin and eye irritation. Will cause gastrointestinal tract irritation.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
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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

None.

Hazardous Combustion Products May release toxic oxides of Zinc and Sulfur in a fire.

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** Use personal protective equipment as required.
- Environmental Precautions** 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. Soak up and contain spill with an absorbent material.
- Methods for Clean-Up** Sweep up and shovel into suitable containers for disposal. Discard any product, residue, disposable container or liner in full compliance with federal, state, and local regulations. For waste disposal, see section 13 of the SDS.
- Prevention of Secondary Hazards** Spills may present a slipping hazard.

7. HANDLING AND STORAGE

Precautions for safe handling

- Advice on Safe Handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Use personal protection recommended in Section 8. Wash face, hands, and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities

- Storage Conditions** Keep container tightly closed and store in a cool, dry and well-ventilated place. Protect from direct sunlight. Keep out of the reach of children.
- Incompatible Materials** Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Citric Acid 77-92-9	-	15 mg / m ³ (Total)	-

Appropriate engineering controls

- Engineering Controls** Apply technical measures to comply with the occupational exposure limits. Eyewash stations. Showers.

Individual protection measures, such as personal protective equipment

- Eye/Face Protection** Safety goggles.
- Skin and Body Protection** Wear suitable protective clothing.

Respiratory Protection In case of inadequate ventilation wear respiratory protection. Wear an appropriate NIOSH/MSHA approved respirator if ventilation is inadequate.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid	Odor	Sweet
Appearance	Dark brown liquid	Odor Threshold	Not determined
Color	Dark brown		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	Not applicable	
Melting Point/Freezing Point	Not applicable	
Boiling Point/Boiling Range	100 °C / 212 °F	
Flash Point	Not applicable	
Evaporation Rate	Not applicable	
Flammability (Solid, Gas)	Not determined	
Upper Flammability Limits	Not determined	
Lower Flammability Limit	Not determined	
Vapor Pressure	Not determined	
Vapor Density	Not determined	
Specific Gravity	1.22	
Water Solubility	Soluble in water	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Auto-ignition Temperature	Not determined	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	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.

Incompatible Materials

Strong oxidizing agents.

Hazardous Decomposition Products

May release toxic oxides of Zinc and Sulfur in a fire.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact	Causes serious eye irritation.
Skin Contact	Avoid contact with skin.
Inhalation	Avoid breathing vapors or mists.
Ingestion	May cause discomfort if swallowed.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Citric Acid 77-92-9	= 3000 mg/kg (Rat)	-	-

Information on physical, chemical and toxicological effects

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.

Numerical measures of toxicity

Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life with long lasting effects.

Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Citric Acid 77-92-9		1516: 96 h Lepomis macrochirus mg/L LC50 static		120: 72 h Daphnia magna mg/L EC50

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Chemical Name	Partition Coefficient
Citric Acid 77-92-9	-1.72

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 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 Not regulated

IMDG
Marine Pollutant This material may meet the definition of a marine pollutant

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Citric Acid	Present	X		Present		Present	X	Present	X	X
Zinc sulfate		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

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 sulfate - 7446-19-7	7446-19-7	1-5	1.0

CWA (Clean Water Act)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
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 sulfate 7446-19-7	X		X

16. OTHER INFORMATION**NFPA****Health Hazards**

Not determined

Flammability

Not determined

Instability

Not determined

Special Hazards

Not determined

HMIS**Health Hazards**

Not determined

Flammability

Not determined

Physical Hazards

Not determined

Personal Protection

Not determined

Issue Date:

04-May-2015

Revision Date:

27-Apr-2016

Revision Note:

Address Change

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