

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Product name : Viaduct Iron 4.3% 1-0-0

1.2. Recommended use and restrictions on use

Agricultural fertilizer use

1.3. Supplier

INNICTIS® BIOSCIENCE
 PLANT HEALTH TECHNOLOGIES
 P.O. Box 9296
 Boise ID 83707, - USA
 T 855-466-8428

1.4. Emergency telephone number

Emergency number : CHEMTREC 1-800-424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Acute toxicity (oral), Category 4 H302 Harmful if swallowed.
 Skin corrosion/irritation, Category 2 H315 Causes skin irritation.
 Eye irritation/eye irritation, Category 2A H319 Causes serious eye irritation.

2.2. GHS Label elements, including precautionary statements

GHS US labelling

Hazard pictograms (GHS US)



Signal word (GHS US)

: Warning

Hazard statements (GHS US)

: H302 - Harmful if swallowed.
 H315 - Causes skin irritation.
 H319 - Causes serious eye irritation.

Precautionary Statements (GHS US)

: P101 - If medical advice is needed, have product container or label at hand.
 P102 - Keep out of reach of children.
 P103 - Read label before use.
 P264 - Wash hands, face, arms thoroughly after handling.
 P270 - Do not eat, drink or smoke when using this product.
 P280 - Wear protective gloves/eye protection/face protection.
 P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
 P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P337+P313 - If eye irritation persists: Get medical advice/attention.
 P332+P313 - If skin irritation occurs: Get medical advice/attention.
 P362 - Take off contaminated clothing and wash before reuse.
 P501 - Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3. Other hazards which do not result in classification

No additional information available.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

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Name	Product identifier	GHS-US classification
Proprietary*	(CAS-No.) Not applicable	Not classified
Ferrous sulfate	7782-63-0	Acute tox. 4; Skin irrit. 2; Eye irrit. 2A

SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention
- First-aid measures after inhalation : Allow affected person to breathe fresh air. Allow the victim to rest. If symptoms persist, call a physician.
- First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
- First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects (acute and delayed)

- Potential adverse health effects and symptoms : Based on available data, the classification criteria are not met.
- Symptoms/effects after inhalation : No data available.
- Symptoms/effects after skin contact : Causes skin irritation.
- Symptoms/effects after eye contact : Causes serious eye irritation.

4.3. Immediate medical attention and special treatment, if necessary

No additional information available.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Not flammable, use media suitable for combustibles involved in fire.
- Unsuitable extinguishing media : None known.

5.2. Specific hazards arising from the chemical

Sulfur oxides; iron oxides; not combustible. Ambient fire may liberate hazardous vapors.

5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Use water spray of fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent firefighting water from entering the environment.
- Protection during firefighting : In the event of fire, wear self-contained breathing apparatus and full firefighting turnout gear. Keep containers/storage vessels in fire area cooled with water spray.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : Avoid inhalation of dusts. Avoid substance contact. Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : Ventilate area.

6.2. Environmental precautions

Do not let product enter drains.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions. Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.
- Hygiene measures : Wash hands, forearms and face thoroughly after handling.

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7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	:	Keep only in the original container in a cool, well ventilated place. Keep container tightly closed.
Incompatible products	:	Strong bases. Strong acids
Incompatible materials	:	Sources of ignition. Direct sunlight.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Component	CAS-No.	Value	Control parameters	Basis
Ferrous Sulfate	7782-63-0	TWA	1 mg/m3	USA. NIOSH Recommended Exposure Limits

8.2. Appropriate engineering controls

Appropriate engineering controls	:	Use with adequate exhaust ventilation to prevent inhalation of product vapors. Keep eye wash/safety shower in areas where product is commonly handled.
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8.3. Individual protection measures/Personal protective equipment

Hand protection:

For prolonged or repeated contact, use protective gloves.

Eye/Face protection:

Chemical goggles and a full face shield.

Skin and body protection:

Neoprene rubber gloves and apron should be worn to prevent repeated or prolonged contact with the liquid. Wash contaminated clothing prior to reuse.

Respiratory protection:

None generally required. If conditions exist where mist may be generated, a NIOSH/MSHA approved mist respirator should be worn.

Hygiene measures:

There are no known hazards associated with this product when used as recommended, however good industrial hygiene practices should be followed, such as washing thoroughly after handling and before eating or drinking.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Dark brown liquid
Color	:	Dark brown
Odour	:	Lignon odor
Odour threshold	:	No data available
pH	:	4.5-5.0
Melting point	:	Salt Out Temperature <5°F (<-15°C) (Typical)
Freezing point	:	<5°F (<-15°C)
Boiling point	:	~212°F (100°C)
Flash point	:	No data available
Relative evaporation rate (butylacetate=1)	:	No data available
Flammability (solid, gas)	:	Non flammable
Vapour pressure	:	No data available
Relative vapour density at 20 °C	:	1.16 g/ml
Density	:	9.75 lbs/gal

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Solubility	: Complete
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: >500°C
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

9.2. Other information

No additional information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available.

10.2. Chemical stability

Material is stable under normal conditions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

No additional information available.

10.5. Incompatible materials

This product is not compatible with lead or mercury or their alloys. These materials of construction should not be used in handling systems or storage containers for this product

10.6. Hazardous decomposition products

None known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) LD50 Oral Rat >24226 mg/kg estimated	: Harmful if swallowed.
Acute toxicity (dermal) LD50 Dermal Rat >28406 mg/kg	: Causes skin irritation.
Acute toxicity (inhalation)	: Not classified.
Skin corrosion/irritation	: Causes skin irritation. pH: 7.5 - 8.5
Serious eye damage/irritation	: Causes serious eye irritation. pH: 7.5 - 8.5
Respiratory or skin sensitization	: Not classified.
Germ cell mutagenicity	: Not classified.
Carcinogenicity	: Not listed in NTP, IARC or by OSHA.
Reproductive toxicity	: Not classified.
STOT-single exposure	: Not classified.
STOT-repeated exposure	: Not classified.
Aspiration hazard	: Not classified.

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Viscosity, kinematic	: Not classified.
Potential adverse human health effects and symptoms	: Not classified.
Symptoms/effects after inhalation	: Not classified.
Symptoms/effects after skin contact	: Causes skin irritation. May cause allergic skin reaction.
Symptoms/effects after eye contact	: Causes serious eye irritation. Redness, pain, swelling, itching, burning, tearing, blurred vision.

SECTION 12: Ecological information

12.1. Toxicity

Ecology – general	: Toxic to aquatic life. Harmful to aquatic life with long lasting effects.
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12.2. Persistence and degradability

No additional information available.

12.4. Mobility in soil

No additional information available.

12.5. Other adverse effects

Other information	: Avoid release to the environment.
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SECTION 13: Disposal considerations

13.1. Disposal methods

Consult federal, state, and local regulations for disposal requirements.

Product/packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations.
Ecology – waste materials	: Avoid unintentional release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Other information	: No supplementary information available.
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Transportation of Dangerous Goods

Transport by sea

Air transport

SECTION 15: Regulatory information

15.1. US Federal regulations

No additional information available.

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm.

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.