

SECTION 1: Identification

1.1. Identification

Product form : Liquid
Product name : Viaduct Mn 0.65-0-0

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.
Acute toxicity (dermal), Category 4	H312 Harmful in contact with skin.
Eye irritation/eye irritation, Category 2A	H319 Causes serious eye irritation.
STOT (single exposure), Category 3	H335 May cause respiratory irritation.

Full text of H statements: see section 16

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.
H312 - Harmful in contact with skin.
H319 - Causes serious eye irritation.
H335 - May cause respiratory 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.
P261 - Avoid breathing fume/gas/mist/vapors/spray.
P264 - Wash hands, face and other affected areas thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors in a well-ventilated area.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P330 - Rinse mouth.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
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.
P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
P334+P313 - If eye irritation persists: Get medical advice/attention.
P363 - Wash contaminated clothing before reuse.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.
P501 - Dispose of contents/container to Local, State and Federal Regulation.

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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

Name	Product identifier	%
Nitrogen	7727-37-9	0.65
Manganese sulfate	7487-88-9	4.8%
Sulfur	7704-34-9	3%

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	: Dust may irritate the nose, throat, and respiratory tract by mechanical abrasion. Coughing, sneezing, and shortness of breath may occur following exposures in excess of appropriate exposure limits. Move to fresh air in case of accidental inhalation of dust. If symptoms persist, call a physician.
First-aid measures after skin contact	: Direct contact may cause irritation by mechanical abrasion. Wash off with soap and plenty of water.
First-aid measures after eye contact	: Direct contact with dust may cause irritation by mechanical abrasion. Do not rub eye. Flush eye thoroughly with water. Keep eye wide open while rinsing. Remove contact lenses. If irritation occurs, get medical assistance.
First-aid measures after ingestion	: Intestinal obstruction may occur if the material hardens, especially in the pyloric region. Rinse mouth thoroughly with water and drink afterwards plenty of water to dilute material in stomach. Do not induce vomiting. Never give anything by mouth to an unconscious person.

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

None Known

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.

5.2. Specific hazards arising from the chemical

Flash Point : Non-Flammable

Hazardous decomposition products in case of fire : Heating (flames) of closed or sealed containers may cause violent rupture of container due to thermal expansion of compressed gases.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : In the event of fire, wear self-contained breathing apparatus and full fire fighting 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

Personal precautions : Use personal protective equipment specified in Section 8. Isolate the hazard area and deny entry to unnecessary, untrained and unprotected personnel.

6.2. Environmental precautions

Keep out of "waters of the United States." This product is a non-hazardous liquid fertilizer solution.

6.3. Methods and material for containment and cleaning up

Small release : Confine and absorb small releases with sand, earth or other inert absorbents.
Large release : Shut off release if safe to do so. Dike spill area with earth, sand or other inert absorbents to prevent runoff into surface waterways (potential aquatic toxicity), storm drains or sewers.

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Other information : Keep in suitable, closed containers for disposal.

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 : Avoid contact with eyes. Use only in a well-ventilated area. Wash thoroughly after handling. Avoid prolonged or repeated contact with the skin.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in well-ventilated areas. Do not store combustibles in the area of storage vessels.
Materials to avoid : Keep away from any sources of heat or flame. Store totes and smaller containers out of direct sunlight at moderate temperatures. (See Section 10.5 for materials for construction.)

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No exposure limits noted for ingredient(s).

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.

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

Appearance : Brown
Odour : Slight lignin odor
Odour threshold : Not determined
pH : N/A
Melting point : Not established
Freezing point : Not established
Boiling point : >212°F (>100°C)
Flash point : Not applicable
Flammability (solid, gas) : Not applicable
Vapour pressure : Not determined
Relative vapour density at 20 °C : Not determined

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Relative density	: 9.7 lbs/gal
Solubility in Water	: Complete
Partition coefficient n-octanol/water (Log Pow)	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Data not applicable
Viscosity, kinematic	: Data not applicable
Viscosity, dynamic	: Data not applicable

9.2. Other information

Upper explosion limit	Not explosive
Lower explosion limit	Not explosive

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is stable and non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Material is stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Incompatible materials.

10.5. Incompatible materials

Strong oxidizers. 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)	: Harmful if swallowed.
Acute toxicity (dermal)	: Harmful in contact with skin.
Acute toxicity (inhalation)	: Not classified.
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Causes serious eye irritation.
Carcinogenicity	: Not listed in NTP, IARC or by OSHA.
Teratology	: Not classified.
Reproductive toxicity	: Not classified.
Mutagenicity	: Not classified.

SECTION 12: Ecological information

Ecotoxicity	Not determined.
Persistence and degradability:	Not determined.
Bioaccumulative potential:	Not determined.
Mobility in Soil:	Not determined.
Other adverse effects:	Not determined.

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SECTION 13: Disposal considerations

13.1. Disposal methods

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

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Other information : No supplementary information available.

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

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

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.