

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : SabrEX Root Inoculant for Corn IF

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Seed treatment

1.3. Supplier

Agrauxine Corp.
375 Bonnewitz Avenue
Van Wert, Ohio 45891
United States
T +1 419-232-2461
fds-agx@agrauxine.lesaffre.com

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

Not classified

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Precautionary statements (GHS US) : P280 - Wear protective gloves, protective clothing, eye protection, face protection.

2.3. Other hazards which do not result in classification

Other hazards which do not result in classification : Microorganisms can potentially cause sensitisation reactions.

2.4. Unknown acute toxicity (GHS US)

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Comments : Contains *Trichoderma afroharzianum* and *Trichoderma atroviride* at a minimum concentration of 4.0 x 10^{e7} CFU/mL each

Name	Product identifier	%	GHS US classification
Glycerol	CAS-No.: 56-81-5	15 – 25	Not classified

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Name	Product identifier	%	GHS US classification
<i>Trichoderma afroharzianum</i>	-	0.1 – 0.5	Not classified
<i>Trichoderma atroviride</i>	-	0.1 – 0.5	Not classified

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	: Move the affected person to the fresh air. Get medical advice/attention if you feel unwell.
First-aid measures after skin contact	: Wash with water and soap as a precaution. Get medical advice if skin irritation persists.
First-aid measures after eye contact	: Rinse eyes with water as a precaution. Consult an ophtalmologist if irritation persists.
First-aid measures after ingestion	: Rinse mouth out with water. Get medical advice/attention.

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

Symptoms/effects	: Microorganisms can potentially cause sensitisation reactions.
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4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Use extinguishing agent suitable for surrounding fire.
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5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire	: Toxic fumes may be released. Carbon oxides (CO, CO2).
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5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Cool down the containers exposed to heat with a water spray. Contain the extinguishing fluids by bunding.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Complete protective clothing. Self contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Ventilate spillage area.
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6.1.1. For non-emergency personnel

Emergency procedures	: Avoid contact with skin and eyes. Avoid breathing vapors.
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6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment.
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6.2. Environmental precautions

Contain the spilled material by bunding. Prevent liquid from entering sewers, watercourses, underground or low areas.

6.3. Methods and material for containment and cleaning up

For containment	: Take up liquid spill into inert absorbent material.
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Methods for cleaning up : Hose down area with water.
Other information : Collect all waste in suitable and labeled containers and dispose according to local legislation.

6.4. Reference to other sections

Concerning personal protective equipment to use, see item 8. Concerning disposal elimination after cleaning, see item 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Avoid breathing vapors. Handle in accordance with good agricultural, health and safety practice.
Hygiene measures : Do not drink, eat or smoke in the workplace. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store tightly closed in a dry, cool and well-ventilated place. Keep container tightly closed. Keep away from food, drink and animal feeding stuffs. Keep out of the reach of children.
Incompatible materials : Strong oxidizing agents.
Special rules on packaging : Store in original container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Glycerol (56-81-5)	
USA - OSHA - Occupational Exposure Limits	
Local name	Glycerin (mist)
OSHA PEL (TWA) [1]	15 mg/m ³ (Total dust) 5 mg/m ³ (Respirable fraction)
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure that there is a suitable ventilation system.
Environmental exposure controls : Avoid sub-soil penetration.

8.3. Individual protection measures/Personal protective equipment

Hand protection:
Protective gloves. Breakthrough time : refer to the recommendations of the supplier
Eye protection:
Safety glasses
Skin and body protection:
Protective clothing
Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: Green-brown
Odor	: No data available
Odor threshold	: No data available
pH	: 6.8
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: 1.039
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: Not explosive.
Oxidizing properties	: Non oxidizing.

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

To our knowledge, the product does not present any particular risk, under normal conditions of use.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None to our knowledge.

10.4. Conditions to avoid

None to our knowledge.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Glycerol (56-81-5)	
LD50 oral rat	11500 mg/kg (Published data)
LD50 dermal	56750 mg/kg (Guinea pig)(Published data)
LC50 inhalation rat (mg/l)	> 5.85 mg/l/4h (spray)(Published data)

Skin corrosion/irritation : Not classified
pH: 6.8
Serious eye damage/irritation : Not classified
pH: 6.8
Respiratory or skin sensitization : Not classified
Microorganisms can potentially cause sensitisation reactions
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified
Viscosity, kinematic : No data available
Symptoms/effects : Microorganisms can potentially cause sensitisation reactions.

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Shovel into suitable and closed container for disposal.
Product/Packaging disposal recommendations : Dispose of in accordance with relevant local regulations.

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SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

DOT	TDG	IMDG	IATA
14.1. UN number			
Not regulated for transport			
14.2. Proper Shipping Name			
Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)			
Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards			
Not applicable	Not applicable	Not applicable	Not applicable

14.6. Special precautions for user

DOT

No data available

TDG

No data available

IMDG

No data available

IATA

No data available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
Glycerol	56-81-5	Present	Active	
Trichoderma afroharzianum		Not present	-	
Trichoderma atroviride		Not present	-	

Glycerol (56-81-5)

Not subject to reporting requirements of the United States SARA Section 313

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Trichoderma afroharzianum

Not subject to reporting requirements of the United States SARA Section 313

Trichoderma atroviride

Not subject to reporting requirements of the United States SARA Section 313

15.2. International regulations

CANADA

Glycerol (56-81-5)

Listed on the Canadian DSL (Domestic Substances List)

Trichoderma afroharzianum

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

Trichoderma atroviride

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

EU-Regulations

Glycerol (56-81-5)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Trichoderma afroharzianum

Not listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Trichoderma atroviride

Not listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

National regulations

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All components of this product are present and listed as Active, or excluded from the directory, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

SARA 313

This product contains no chemicals in excess of the applicable de minimis concentration that are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372 (Table 372.65).

Except *Trichoderma atroviride*, *Trichoderma afroharzianum*, all chemical substances in this product are listed on the Canadian DSL (Domestic Substances List)

All chemical substances in this product are listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) except *Trichoderma atroviride*, *Trichoderma afroharzianum*

15.3. US State regulations

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U.S. - California - Proposition 65 - Other information

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

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Component	State or local regulations
Glycerol(56-81-5)	U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Issue date : 8/9/2023

Data sources : ECHA (European Chemicals Agency). SDS of suppliers.

Abbreviations and acronyms	
LD50	Median lethal dose
DOT	Department of Transportation (DOT)
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
TDG	Transportation of Dangerous Goods

Safety Data Sheet (SDS), USA

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.