



# SeedStart Gaia™

## Safety Data Sheet

According To Federal Register / Vol. 89, No. 98 / Monday, May 20, 2024 / Rules And Regulations And According To The Hazardous Products Regulation (December 15, 2022).

Date of Issue: 10/21/2025

Version: 1.0

### SECTION 1: IDENTIFICATION

#### 1.1. Product Identifier

**Product Form:** Mixture

**Product Name:** SeedStart Gaia™

#### 1.2 Recommended Use and Restrictions on Use

**Use Of The Substance/Mixture** : For use as a supplemental seed treatment, foliar, or in-furrow application in agriculture.

**Restrictions On Use** : No additional information available

#### 1.3. Name, Address, and Telephone of the Responsible Party

##### Company

The McGregor Company  
PO Box 740; 401 Colfax Airport Rd.  
Colfax, WA 99111  
T 509-397-4355

#### 1.4. Emergency Telephone Number

**Emergency Number** : CHEMTREC – TOLL FREE 24 HOUR EMERGENCY TELEPHONE NUMBER;1-800-424-9300 (Account Number: 14045)

### SECTION 2: HAZARDS IDENTIFICATION

#### 2.1. Classification of the Substance or Mixture

##### GHS-US/CA Classification

Serious eye damage/eye irritation, Category 1	H318
Hazardous to the aquatic environment, Acute Hazard, Category 2	H401
Hazardous to the aquatic environment, Chronic Hazard, Category 2	H411

#### 2.2. Label Elements

##### GHS-US/CA Labeling

**Hazard Pictograms (GHS-US/CA)** :



**Signal Word (GHS-US/CA)** :

Danger

**Hazard Statements (GHS-US/CA)** :

H318 - Causes serious eye damage.  
H411 - Toxic to aquatic life with long lasting effects.

**Precautionary Statements (GHS-US/CA)** :

P273 - Avoid release to the environment.  
P280 - Wear eye protection, protective clothing, protective gloves.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 - Immediately call a POISON CENTER or a doctor.  
P391 - Collect spillage.  
P501 - Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

#### 2.3 Hazards associated with known or reasonably anticipated uses

If this product is used in unforeseeable chemical processes and not used as intended or reasonable, the hazards listed in Section 2.3 cannot cover all chemistries. Therefore, a Process Hazard Analysis (PHA) or other hazard assessment for additional specific end uses should be performed to ensure that hazards are fully understood, and adequate safety measures are in place. See Section 10 for relevant reactivity and stability information.

#### 2.4. Other Hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

#### 2.5 Unknown Acute Toxicity (GHS-US/CA)

No additional information available

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### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1. Substance

Not applicable

#### 3.2. Mixture

Name	Synonyms	Product Identifier	% *	GHS Ingredient Classification
Zinc sulfate	Sulfuric acid, zinc salt (1:1) / Zinc sulfate (1:1) / Zinc sulphate / Zinc sulfate, anhydrous	(CAS-No.) 7733-02-0	7 - 13	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Citric acid	Citric acid, anhydrous / 2-Hydroxy-1,2,3-propanetricarboxylic acid / 1,2,3-Propanetricarboxylic acid, 2-hydroxy- / 2-Hydroxypropane-1,2,3-tricarboxylic acid / Anhydrous citric acid	(CAS-No.) 77-92-9	1 - 5	Eye Irrit. 2, H319 STOT SE 3, H335 Comb. Dust

Full text of H-statements: see section 16

\*Percentages are listed in weight by weight percentage (w/w%). The actual concentration of ingredient(s) is withheld as a trade secret in accordance with the Hazardous Products Regulations (HPR) SOR/2022-272 and 29 CFR 1910.1200.

### SECTION 4: FIRST AID MEASURES

#### 4.1. Description of First-aid Measures

**General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

**Inhalation:** When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

**Skin Contact:** Immediately drench affected area with water for at least 15 minutes. Remove contaminated clothing. Obtain medical attention if irritation develops or persists.

**Eye Contact:** Immediately rinse with water for at least 30 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

**Ingestion:** Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

#### 4.2. Most Important Symptoms and Effects Both Acute and Delayed

**General:** Causes serious eye damage.

**Inhalation:** Prolonged exposure may cause irritation.

**Skin Contact:** Prolonged exposure may cause skin irritation.

**Eye Contact:** Causes permanent damage to the cornea, iris, or conjunctiva.

**Ingestion:** Ingestion may cause adverse effects.

**Chronic Symptoms:** None known.

#### 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

### SECTION 5: FIRE-FIGHTING MEASURES

#### 5.1. Extinguishing Media

**Suitable Extinguishing Media:** Water spray, fog, carbon dioxide (CO<sub>2</sub>), alcohol-resistant foam, or dry chemical.

**Unsuitable Extinguishing Media:** Do not use a heavy water stream. Use of heavy stream of water may spread fire.

#### 5.2. Special Hazards Arising From the Substance or Mixture

**Fire Hazard:** Not considered flammable but may burn at high temperatures.

**Explosion Hazard:** Product is not explosive.

**Reactivity:** Hazardous reactions will not occur under normal conditions.

#### 5.3. Advice for Firefighters

**Precautionary Measures Fire:** Exercise caution when fighting any chemical fire.

**Firefighting Instructions:** Use water spray or fog for cooling exposed containers.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

**Hazardous Combustion Products:** Ammonia. Carbon oxides (CO, CO<sub>2</sub>). Metal oxides. Nitrogen oxides. Sulfur oxides.

**Other Information:** Do not allow run-off from fire fighting to enter drains or water courses.

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### 5.4. Reference to Other Sections

Refer to Section 9 for flammability properties.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

**General Measures:** Do not get in eyes, on skin, or on clothing. Do not breathe vapor, mist or spray.

#### 6.1.1. For Non-Emergency Personnel

**Protective Equipment:** Use appropriate personal protective equipment (PPE).

**Emergency Procedures:** Evacuate unnecessary personnel.

#### 6.1.2. For Emergency Personnel

**Protective Equipment:** Equip cleanup crew with proper protection.

**Emergency Procedures:** Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

Ventilate area.

### 6.2. Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment. Collect spillage.

### 6.3. Methods and Materials for Containment and Cleaning Up

**For Containment:** Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

**Methods for Cleaning Up:** Clean up spills immediately and dispose of waste safely. Absorb and/or contain spill with inert material. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

### 6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

## 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. Avoid breathing vapors, mist, spray. Do not get in eyes, on skin, or on clothing.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures.

### 7.2. Conditions for Safe Storage, Including Any Incompatibilities

**Technical Measures:** Comply with applicable regulations.

**Storage Conditions:** Do not freeze. Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

**Incompatible Materials:** Strong acids, strong bases, strong oxidizers.

### 7.3. Specific End Use(s)

For use as a supplemental seed treatment, foliar, or in-furrow application in agriculture.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), or Canadian provincial governments.

### 8.2. Exposure Controls

**Appropriate Engineering Controls:** Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

**Personal Protective Equipment:** Gloves. Protective clothing. Protective goggles.



**Materials for Protective Clothing:** Chemically resistant materials and fabrics.

**Hand Protection:** Wear protective gloves.

**Eye and Face Protection:** Chemical safety goggles.

**Skin and Body Protection:** Wear suitable protective clothing.

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**Respiratory Protection:** If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

**Other Information:** When using, do not eat, drink or smoke.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Color	: Dark brown soluble liquid
Odor	: Slightly sweet
Odor Threshold	: No data available
pH	: No data available
Evaporation Rate	: No data available
Melting Point	: No data available
Freezing Point	: No data available
Boiling Point	: > 100 °C (212 °F)
Flash Point	: No data available
Auto-ignition Temperature	: No data available
Decomposition Temperature	: No data available
Flammability (solid, gas)	: Not applicable
Lower Flammable Limit	: No data available
Upper Flammable Limit	: No data available
Vapor Pressure	: No data available
Relative Vapor Density at 20 °C	: No data available
Relative Density	: 1.15
Density	: 9.6 lb/gal
Specific Gravity	: No data available
Solubility	: Water: Soluble
Partition Coefficient: N-Octanol/Water	: No data available
Viscosity, Kinematic	: No data available
Particle characteristics	: No data available

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity:

Hazardous reactions will not occur under normal conditions.

### 10.2. Chemical Stability:

Stable under recommended handling and storage conditions (see section 7).

### 10.3. Possibility of Hazardous Reactions, Including those Associated with Foreseeable Emergencies:

Hazardous polymerization will not occur.

### 10.4. Conditions to Avoid:

Direct sunlight, extremely high or low temperatures, and incompatible materials.

### 10.5. Incompatible Materials:

Strong acids, strong bases, strong oxidizers.

### 10.6. Hazardous Decomposition Products:

Thermal decomposition may produce: Ammonia. Carbon oxides (CO, CO<sub>2</sub>). Metal oxides. Nitrogen oxides. Sulfur oxides.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on Toxicological Effects - Product

**Likely routes of exposure:** Dermal, Eye Contact, Inhalation, Oral.

**Acute Toxicity (Oral):** Not classified.

**Acute Toxicity (Dermal):** Not classified.

**Acute Toxicity (Inhalation):** Not classified.

**LD50 and LC50 Data:** No additional information available

**Skin Corrosion/Irritation:** Not classified.

**Eye Damage/Irritation:** Causes serious eye damage.

**Respiratory or Skin Sensitization:** Not classified.

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**Germ Cell Mutagenicity:** Not classified.

**Carcinogenicity:** Not classified.

**Specific Target Organ Toxicity (Repeated Exposure):** Not classified.

**Reproductive Toxicity:** Not classified.

**Specific Target Organ Toxicity (Single Exposure):** Not classified.

**Aspiration Hazard:** Not classified.

**Symptoms/Injuries After Inhalation:** Prolonged exposure may cause irritation.

**Symptoms/Injuries After Skin Contact:** Prolonged exposure may cause skin irritation.

**Symptoms/Injuries After Eye Contact:** Causes permanent damage to the cornea, iris, or conjunctiva.

**Symptoms/Injuries After Ingestion:** Ingestion may cause adverse effects.

**Chronic Symptoms:** None known.

### 11.2. Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Citric acid (77-92-9)	
LD50 Oral Rat	3 g/kg (Source: NLM_CIP)
LD50 Dermal Rat	> 2000 mg/kg (Source: EU_CLH)
Zinc sulfate (7733-02-0)	
LD50 Oral Rat	1710 mg/kg (Source: NLM_CIP)
LD50 Dermal Rat	> 2000 mg/kg (Source: ECHA_API)

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

**Ecology - General:** Toxic to aquatic life with long lasting effects.

Citric acid (77-92-9)	
LC50 Fish	1516 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus Source: OECD_SIDS)
Zinc sulfate (7733-02-0)	
LC50 Fish	0.162 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through] Source: EPA)
EC50 Crustacea	0.75 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 Fish	0.03 (0.03 – 0.05) mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [semi-static])
EC50 Crustacea	0.538 (0.538 – 0.908) mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
NOEC Chronic Algae	0.0246 mg/l

### 12.2. Persistence and Degradability

SeedStart Gaia™	
Persistence and Degradability	May cause long-term adverse effects in the environment.
Citric acid (77-92-9)	
Persistence and Degradability	Readily biodegradable in water.

### 12.3. Bioaccumulative Potential

SeedStart Gaia™	
Bioaccumulative Potential	Not established.
Citric acid (77-92-9)	
Partition coefficient n-octanol/water (Log Pow)	-1.72 at 20 °C
Zinc sulfate (7733-02-0)	
BCF Fish	59 – 112

### 12.4. Mobility in Soil

No additional information available

### 12.5. Other Adverse Effects

**Other Information:** Avoid unintended release to the environment.

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### SECTION 13: DISPOSAL CONSIDERATIONS

#### 13.1. Waste treatment methods

**Waste Disposal Recommendations:** Dispose of contents/container in accordance with local, regional, national, territorial, provincial, and international regulations.

**Ecology - Waste Materials:** Avoid unintended release to the environment.

### SECTION 14: TRANSPORT INFORMATION

The shipping description(s) stated herein were prepared in accordance with certain assumptions at the time the SDS was authored, and can vary based on a number of variables that may or may not have been known at the time the SDS was issued.

#### 14.1. In Accordance with DOT

**For shipments less than or equal to 450 L / 119 gallons:**

Not regulated for transport

**For shipments greater than 450 L / 119 gallons:**

**Proper Shipping Name** : ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (Zinc sulfate)

**Hazard Class** : 9

**Identification Number** : UN3082

**Label Codes** : 9

**Packing Group** : III

**Marine Pollutant** : Marine pollutant

**ERG Number** : 171



#### 14.2. In Accordance with IMDG

**For shipments less than or equal to 5 L / 1.3 gallons:**

Not regulated for transport

**For shipments greater than 5 L / 1.3 gallons:**

**Proper Shipping Name** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Zinc sulfate)

**Hazard Class** : 9

**Identification Number** : UN3082

**Label Codes** : 9

**Packing Group** : III

**EmS-No. (Fire)** : F-A

**EmS-No. (Spillage)** : S-F

**Marine pollutant** : Marine pollutant



#### 14.3. In Accordance with IATA

**For shipments less than or equal to 5 L / 1.3 gallons:**

Not regulated for transport

**For shipments greater than 5 L / 1.3 gallons:**

**Proper Shipping Name** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Zinc sulfate)

**Hazard Class** : 9

**Identification Number** : UN3082

**Label Codes** : 9

**Packing Group** : III

**ERG Code (IATA)** : 9L



#### 14.4. In Accordance with TDG

**For shipments less than or equal to 450 L / 119 gallons:**

Not regulated for transport

**For shipments greater than 450 L / 119 gallons:**

**Proper Shipping Name** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Zinc sulfate)

**Hazard Class** : 9

**Identification Number** : UN3082

**Label Codes** : 9

**Packing Group** : III

**Marine Pollutant (TDG)** : Marine pollutant



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### SECTION 15: REGULATORY INFORMATION

#### 15.1. US Federal Regulations

<b>SeedStart Gaia™</b>	
<b>SARA Section 311/312 Hazard Classes</b>	Health hazard - Serious eye damage or eye irritation
<b>Zinc compounds</b>	
Subject to reporting requirements of United States SARA Section 313	
<b>SARA Section 313 - Emission Reporting</b>	1 % (includes any unique chemical substance that contains Zinc as part of that chemical's infrastructure)
<b>Citric acid (77-92-9)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
<b>Zinc sulfate (7733-02-0)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active	
<b>CERCLA RQ</b>	1000 lb

#### 15.2. US State Regulations

<b>Zinc sulfate (7733-02-0)</b>
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - Massachusetts - Right To Know List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

#### 15.3. Canadian Regulations

<b>Citric acid (77-92-9)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>Zinc sulfate (7733-02-0)</b>
Listed on the Canadian DSL (Domestic Substances List)

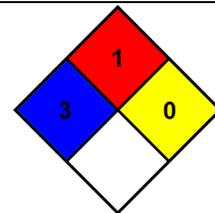
### SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

**Date of Preparation or Latest Revision** : 10/21/2025

**Other Information** : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Hazardous Products Regulations (HPR) SOR/2022-272.

<b>GHS Full Text Phrases:</b>	
H302	Harmful if swallowed
H318	Causes serious eye damage
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H400	Very toxic to aquatic life
H401	Toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects

- NFPA Health Hazard** : 3 - Materials that, under emergency conditions, can cause serious or permanent injury.
- NFPA Fire Hazard** : 1 - Materials that must be preheated before ignition can occur.
- NFPA Reactivity Hazard** : 0 - Material that in themselves are normally stable, even under fire conditions.



#### Glossary of Data Source Abbreviations

ATSDR: Agency for Toxic Substances and Disease Registry (U.S. Department of Health and Human Services)

AU\_WES: Australia WES

CHEMVIEW: ChemView (U.S. Environmental Protection Agency)

EC\_RAR: European Commission Renewal Assessment Report

EC\_SCOEL: European Commission Scientific Committee on Occupational

FOOD\_JOURN: Food Research Journal (1956)

IARC: The International Agency for Research on Cancer

IDLH: National Institute for Occupational Health and Safety Immediately Dangerous to Life or Health Value Profiles

IUCLID: International Uniform Chemical Information Database

JAPAN\_GHS: Japan GHS Basis for Classification Data

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### Exposure Limits

ECETOC: European Centre for Ecotoxicology and Toxicology of Chemicals Reports

ECHA\_API: European Chemicals Agency API

ECHA\_RAC: ECHA Committee for Risk Assessment

EFSA: European Food Safety Authority

EPA: U.S. Environmental Protection Agency

EPA\_AEGL: Acute Exposure Guideline Levels (U.S. Environmental Protection Agency)

EPA\_FIFRA: Federal Insecticide, Fungicide, and Rodenticide Act Reregistration Eligibility Decision (U.S. Environmental Protection Agency)

EPA\_HPVC: High Production Volume Chemicals (U.S. Environmental Protection Agency)

EPA\_TRED: Risk Assessment for Tolerance Reassessment Eligibility Decision (U.S. Environmental Protection Agency)

EU\_CLH: European Union Harmonised Classification and Labelling Proposal

EU\_RAR: European Union Risk Assessment Report

JP\_J-CHECK: Japan J-Check

KR\_NIER: South Korea National Institute of Environmental Research Evaluations

NICNAS: Australia National Industrial Chemicals Notification and Assessment Scheme

NIOSH: National Institute for Occupational Health and Safety (U.S. Department of Health and Human Services)

NLM\_CIP: National Library of Medicine ChemID plus database

NLM\_HSDB: National Library of Medicine Hazardous Substance Data Bank

NLM\_PUBMED: National Library of Medicine PubMed database

NTP: National Toxicology Program

NZ\_CCID: New Zealand Chemical Classification and Information Database

OECD\_EHSP: Environment, Health, and Safety Publication (Organisation for Economic Co-operation and Development)

OECD\_SIDS: Screening Information Data Sets (Organisation for Economic Co-operation and Development)

WHO: World Health Organization

*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.*

NA GHS SDS 2024 (Can, US)