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SECTION 1: IDENTIFICATION

1.1. Product Identifier:

- Product Name: HGX Pro PreBiotic 30-0-0
- Trade Name and Synonymous: Fertilizer Supplement
- Product Type: a slow-release, liquid nitrogen fertilizer
- Common Name: 30-0-0

1.2. Relevant uses of the substance and uses advised against

- Identified uses: Fertilizer and blending applications.
- Uses advised against: No available data.

1.3. Company Name:

Holganix LLC 1000 N Five Points Road West Chester, PA 19380 866.563.2784 www.holganix.com

1.4. In an emergency contact:

- Holganix LLC (9:00 am to 5:00 pm EST/EDT, Mon. through Fri.) 866.563.2784.
- CHEMTREC, 24hr/day 7days/week
 - Within USA and Canada (Local): 1-703-527-388
 - o Toll Free Number: 1-800-424-9300
- **Poison Emergency:** American Association of Poison Control Centers at 1.800.222.1222.
- Environmental Spill: National Response Center at 1.800.424.8802.

SECTION 2: HAZARD(S) IDENTIFICATION

2.1. Signal Word (GHS-US):	Not Av	ailable
2.2. Hazard Statements (GHS-US):	H320	Causes mild eye irritation. May cause skin irritation
2.3. Precautionary Statements (GHS-U	S): P261 P264	Avoid breathing dust/fume/gas/mist/vapors/spray. Wash hands thoroughly after handling with plenty of soap and water.
	P271	Use only outdoors or in a well-ventilated area.
	P308-1	Exposed or concerned, seek medical advice or
	attenti	on.
	P312	Call a poison center (American Association of Poison
		Control Centers at 1-800-222-1222) or physician if you feel unwell.

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	P337 If eye irritation persists, seek medical advice or	
	attention.	
	P351 If skin irritation occurs, rinse cautiously with water for several minutes.	
	P501 Dispose of container in accordance with federal, state and local regulations.	
2.4. Physical Hazard(s):	Not classified.	
2.5. Health Hazard(s):	Not classified.	
2.6. OSHA Defined Hazards:	Not classified.	
2.7. Product Label Warnings:	Hazard Symbol - None required.	
2.8. Hazard(s) Not Otherwise Classified (HNOC):	Classified as nonhazardous in accordance with current laws.	

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1. Substance – HGX Pro PreBiotic 30-0-0 is an aqueous solution of urea (CAS # 57-13-6), Triazone (CAS # 7098-14-8), methylene urea (CAS # 598-50-5) and water (7732-18-5). The guaranteed analysis is total nitrogen (N) 30%... (12% urea nitrogen and 18% other water-soluble nitrogen), available phosphate (P₂O₅) 0% and soluble potash (K₂O) 0%.

SECTION 4: FIRST AID MEASURES

4.1. Description of First Aid Measures:

- **First Aid Measures After Inhalation:** Relocate to fresh air. If a nasal cavity is irritated, flush with water. Seek medical attention if symptoms develop.
- **First Aid Measures After Skin Contact:** Wash skin thoroughly with mild soap and water. Seek medical attention if irritation develops or persists. Wash contaminated clothing before reuse.
- **First Aid Measures After Eye Contact:** Immediately flush with water for a period of 15 minutes while holding eyelids open. Seek medical attention if irritation develops or persists.
- First Aid Measures After Ingestion: Rinse mouth and drink 8 to 16 fluid ounces of water. Do not induce vomiting. Get immediate medical attention if irritation occurs and persists. Call the Poison Control Center (1.800.222.1222) if ingested in large amounts. If vomiting occurs, lower your head to keep the vomit from being swallowed.

4.2. Most Important Symptoms and Effects, Both Acute and Delayed:

• **Symptoms/Injuries After Inhalation:** Overexposure may be irritating to the respiratory system.

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- Symptoms/Injuries After Skin Contact: May cause skin irritation.
- Symptoms/Injuries After Eye Contact: May cause mild eye irritation.
- **Symptoms/Injuries After Ingestion:** If a large quantity has been ingested, a person may experience abdominal pain, diarrhea, nausea, and/or vomiting.
- 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed: If medical advice or care is needed, have a product container or a copy of the label at hand. Call the Poison Control Center (800.222.1222) if ingested in large amounts. If vomiting occurs, lower your head to keep the vomit from being swallowed.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing Media:

- Suitable Extinguishing Media: Extinguish with water, fog, foam, and/or carbon dioxide (CO₂). The product is not considered flammable but will burn at high temperatures. Use extinguishing media appropriate for surrounding fire.
- Unsuitable Extinguishing Media: Avoid direct stream of water to extinguish.

5.2. Special Hazards Arising From the Substance or Mixture:

- **Fire Hazard:** Thermal decomposition can lead to a release of irritating and toxic gases and vapors. In the event of a fire, do not breathe fumes. Firefighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full-facepiece operating in positive pressure mode.
- **Explosive Hazard:** The product itself is not explosive.
- **Reactivity:** This product is non-reactive.

5.3. General Fire Hazards:

This product is not flammable.

SECTION 6: ACCIDENTAL RELEASE MEASURES

- 6.1. Personal Precautions, Protective Equipment, and Emergency Procedures and General Measures: Handle in accordance with good industrial hygiene and safety practices.
 - For Non-emergency Personnel:
 - **Protective Equipment:** Wear suitable protective clothing, gloves, and eye/face protection as directed in Section 8 of this Safety Data Sheet (SDS).
 - **Emergency Procedures:** Contain the spillage prevention and leakage to sewers, drainage systems, and/or waterways.
 - For Emergency Responders:

- **Protective Equipment:** Wear suitable protective clothing, gloves, and eye/face protection as directed in Section 8 of this SDS.
- **Emergency Procedures:** If possible, stop the flow of product. Contains spillage prevention and leakage to sewers, drainage systems, and/or waterways.
- **6.2. Environmental Precautions:** Prevent further release of material if safe to do so. Prevent spillage into waterways. If spillage reaches waterways, notify municipal and state environmental agencies.
- **6.3. Method of Containment:** Stop the flow of material if this is possible without risk. Dike the spilled material where it is. Prevent further leakage or spillage if safe to do so. Do not allow spillage to reach drains, sewers, or waterways. If this is not possible, contact local authorities.

6.4. Method of Cleaning Up:

- For Containment: Contain and collect fluids with absorbent materials such as clay granules or vermiculite. Do not allow products to spill over into drains or waterways or dispose of products where ground or surface waters may be affected.
- Methods for Cleaning Up: Recover the product by vacuuming, shoveling, and/or sweeping. Avoid generation of dust during clean-up of spills
- **6.5. Disposal of Contaminated Product:** Contaminated material should be disposed of as recommended in Section 13 of this SDS.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling:

- Additional Hazards When Processed: This product is a nitrogen-containing fertilizer. Runoff to water may promote undesired plant growth in waterways.
- **Precautions for Safe Handling:** Handle in accordance with good industrial hygiene and safety procedures. Wear the recommended personal protective equipment as described in Section 8 of this SDS.

7.2. Conditions for Safe Storage, Including Any Incompatibilities:

- **Storage Conditions:** Store in a cool, dry place. Prevent it from freezing. Keep the container closed when not in use.
- Prohibitions on Mixed Storage: See Section 10 of this SDS.
- Special Rules on Packaging: None specified.

7.3. Specific End Use: This product is intended for use as a starter fertilizer.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters:

Not known.

8.2. Occupational Exposure limits:

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)				
COMPONENT	TYPE		VALUE	
Ammonia (CAS 7664-41-7)	PEL		35 mg/m³	
			50 ppm	
US. ACGIH Threshold Limit Va	alues			
COMPONENT	TYPE		VALUE	
Ammonia (CAS 7664-41-7)	STEL		35 ppm	
			25 ppm	
US. NIOSH: Pocket Guide to (Chemical Hazards			
COMPONENT	TYPE		VALUE	
Ammonia (CAS 7664-41-7)	STEL		27 mg/m ³	
			35 ppm	
			18 mg/m³	
			25 ppm	
US. Workplace Environmenta	al Exposure Level ((WEEL) Guides		
COMPONENT	TYPE	VALUE	FORM	
Urea (CAS 57-13-6)	TWA	10 mg/m³	Total Particulate	

8.3. Exposure Controls:

- Appropriate Engineering Controls: Ensure all federal, state, and local regulations are observed.
- **8.4. Personal Protective Equipment:** Wear gloves and appropriate protective clothing to avoid contact with product or spray solution on the skin. If ventilation is insufficient, wear respiratory protection. To protect your eyes from particulates and/or spray mist, wear safety glasses or goggles.
 - Hand Protection: Protective gloves.
 - Eye Protection: Wear safety glasses with side shields or goggles and a face shield.
 - Skin and Body Protection: Wear rubber or neoprene gloves. Wear clothing that will protect from repeated or prolonged contact with chemical splashes or spills.
 - **Respiratory Protection:** Where engineering controls do not maintain airborne concentrations of chemicals below recommended exposure limits, an approved respirator must be worn. Use

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suitable respiratory equipment with a particle filter. In the USA, if respirators are used, institute a program to assure compliance with OSHA 29 CFR 1910.134 and ANSI Z88.2.

• Environmental Exposure Controls: Ensure adequate ventilation is provided, especially in confined areas.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic and Chemical Properties:

Physical State:	Clear, colorless liquid.
Appearance:	Fluid liquid.
Color:	Clear, colorless.
Odor:	Strong amide/amine.
Odor Threshold:	N/A.
pH:	Approximately 10.1.
Relative Evaporation Rate (butyl aceta	te = 1): N/A.
Melting Point:	N/A.
Freezing Point:	N/A.
Boiling Point:	Approximately 212°F (100°C).
Flash Point:	None when heated to the boiling point (212°F - 100°C).
Auto-ignition Temperature:	No data available.
Decomposition Temperature:	No data available.
Flammability (solid, gas):	No data available.
Vapor pressure:	N/A.
Relative Vapor Density at 20 $^{\circ}$ C:	No data available.
Weight per gallon:	10.09 lb/gal.
Solubility – Water:	100% soluble.
Partition Coefficient: n-octanol/water:	No data available.
Viscosity:	N/A.

9.2. Storage Information: Covered storage of portable containers is recommended. Store the product in an original, tightly closed container. Do not store above 25°C (77°F) for maximum storage life. Protect from freezing. Store the product away from incompatible materials (See Section 10 of this SDS). Store the product in closed, sealed containers in a cool, dry place.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity: This product is stable and non-reactive under conditions of usage, storage, and transportation.

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- **10.2. Chemical Stability:** Stable at standard temperature and pressure.
- **10.3. Possibility of Hazardous Reactions:** There are no dangerous reactions known under normal conditions of use.
- 10.4 Conditions to Avoid: Avoid storage in unagitated bulk tanks above the recommended storage temperature (25°C (77°F)) (see Section 7 of this SDS). Avoid incompatible materials (see below in Section 10 of the SDS) and intense heat.
- **10.5.** Incompatible Materials: This product is incompatible with strong oxidizing agents and strong acids.
- **10.6. Hazardous Decomposition Products:** Ammonia fumes may be released upon heating. When heated to decomposition, acrid smoke and irritating fumes are emitted.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on the Likely Routes of Exposure:

- Skin Contact: Prolonged skin contact may cause minor skin irritation.
- **Eye Contact:** Exposure to spray mist or cleanup dust (during spill cleanup) may cause slight eye irritation.
- Inhalation: Inhalation to spray mist or clean dust (during spill cleanup) may cause respiratory irritation.
- Ingestion: May be harmful if swallowed.

11.2. Description of Delayed, Immediate, or Chronic Effects from Short and Long-Term Exposure:

Symptoms Related to the Physical, Chemical, and Toxicological Characteristics

- Germ Cell Mutagenicity: Not classified.
- **Carcinogenicity:** This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
- **Reproductive Toxicity:** Not classified.
- Specific Target Organ Toxicity (Single Exposure): May cause respiratory irritation.
- Specific Target Organ Toxicity (Repeated Exposure): Not classified.
- Aspiration Hazard: Not classified.

11.3. Numerical Measure of Toxicity:

COMPONENT	SPECIES	TEST	
RESULTS Ammonia (CAS 7	'664-41-7)		
Acute			
Inhalation			
LC50	Rat	5.1 mg/l, 1 Hour	

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Oral LD50	Rat	350 mg/kg, as Ammonium Hydroxide
Urea (CAS 57-13-6)		
Acute		
Oral LD50	Rat	14,300 mg/kg

11.4. Description of Symptoms:

- Symptoms/Injuries After Inhalation: Overexposure may be irritation to the respiratory system.
- Symptoms/Injuries After Skin Contact: May cause skin irritation.
- Symptoms/Injuries After Eye Contact: May cause eye irritation.
- **Symptoms/Injuries After Ingestion:** Ingestion of a large quantity may cause abdominal pain, diarrhea, nausea, and/or vomiting.

11.5. Carcinogenicity:

- National Toxicology Program (NTP) Report on Carcinogens: Not listed.
- Agency for Research on Cancer (IARC) Monographs: Not found to be a potential carcinogen.
- **OSHA:** Not found to be a potential carcinogen.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity: The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

COMPONENTS	ACCUTE	SPECIES	TEST RESULTS
Ammonia (CAS 7664-41-7) Aquatic Fish	LC50	Chinook Salmon (<i>Oncorhynchus</i> tshawyscha)	0.43 – 047 mg/l, 96 Hours
Urea (CAS 57-13-6) Aquatic Fish	LC 50	Ide (<i>Leuciscus idus</i>)	> 6,810 mg/l, 96 Hours

- **12.2. Persistence and Degradability:** This product is biodegradable under aerobic and anaerobic conditions.
- **12.3. Bio-accumulative Potential:** No data is available for this product.
- **12.4.** Mobility in Soil: This product is water soluble and may disperse in soil water.
- 12.5. Other Adverse Effects: No information available.

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SECTION 13: DISPOSAL CONSIDERATIONS

- **13.1. Disposal Instructions:** Dispose in accordance with local, state, and federal laws and regulations at the time of disposal. Do not allow the contents of the package to drain into sewers or watersheds.
- **13.2. Hazardous Waste Code:** The waste code should be assigned in discussion between the user, the producer, and the waste disposal company.
- **13.3. Waste from Residue/Unused Products:** Disposal recommendations are based upon the material as supplied. Disposal must be in accordance with all local, state, and federal laws and regulations at the time of the disposal.
- **13.4. Contaminated Packaging:** An empty container may still retain product residue. Therefore, it is mandatory to follow label warnings even if you believe the container to be empty.

SECTION 14: TRANSPORT INFORMATION

- 14.1. In Accordance with the Department of Transportation (DOT): Not regulated for transport.
- **14.2. In Accordance with International Maritime Dangerous Goods Code (IMDG):** Not regulated for transport.

SECTION 15: REGULATORY INFORMATION

- **15.1. US Federal Regulations:** This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
- 15.2. TSCA Section 12(b) Export Notification (40 CFR 707. Subpt. D): This product is not regulated.
- 15.3. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): This product is not listed.
- **15.4. CERCLA Hazardous Substance List (40 CFR 302.4):** Ammonia (CAS 7664-41-7) This product is listed.
- 15.5. Superfund Amendments and Reauthorization Act of 1986 (SARA):

Hazard Categories:	Immediate Hazard – No	
	Delayed Hazard – No	
	Fire Hazard – No	
	Pressure Hazard – No	
	Reactivity Hazard – No	

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SARA 302 Extremely Hazardous Substance

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			Threshold	Planning		
			Planning Rep	oortable		
			Planning	Quantity		
			Quantity			
Chemical Name	CAS #	Quantity	Quantity	Lower Value	Upper	
Value Ammonia	7664-41-7	100	500 lbs			

SARA 311/312 Hazardous Chemical: No

SARA 313 (TRI Reporting): Not Regulated.

15.6. Other Federal Regulations:

- Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List: Not Required.
- Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):
 Ammonia (CAS 7664-41-7).
- Safe Drinking Water Act (SDWA): Not required.

15.7. US State Regulations:

- **California:** This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.
- California Proposition 65 Carcinogens & Reproductive Toxicity (CRT): Listed Substances:
 - Not listed.
- Massachusetts RTK Substance List:
 - o Ammonia (CAS)7664-41-7
- New Jersey Worker and Community Right-to-Know Act:
 - o Ammonia (CAS)7664-41-7
- Pennsylvania Worker and Community Right-to-Know Law:
 - o Ammonia (CAS)7664-41-7
- Rhode Island RTK:
 - o Ammonia (CAS)7664-41-7

15.8. International Inventories:

Country(s) or Region	Inventory Name	On Inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA): Listed Substance	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s). A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

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SECTION 16: OTHER INFORMATION

Issue Date: October 5, 2023 Revision Date: April 9, 2024 Version #: 02

List of Abbreviations:

LD50: Lethal Dose to kill 50% of the population of animals. **LC50:** Lethal Concentration to kill 50% of the population.

16.1. Other Information: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200. It is correct to the best of our knowledge, information, and belief at the date of publication. The information is designed only as guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or product specification.

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