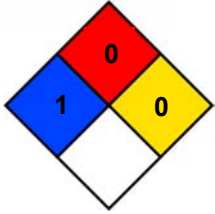




SAFETY DATA SHEET

HUMA GRO® 38 Special



HMIS	
HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0
PPE	A

SECTION 1: CHEMICAL PRODUCT & COMPANY IDENTIFICATION

PRODUCT IDENTIFIER:	HUMA GRO® 38 Special	Product# 138
GENERAL USE:	Used as a part of a plant nutrition program.	
PRODUCT DESCRIPTION:	A clear to slightly hazy, green liquid having a unique characteristic odor.	
SUPPLIER INFORMATION:	Bio Huma Netics, Inc. 1331 W Houston Avenue Gilbert, AZ 85233	EMERGENCY PHONE NUMBERS
For Additional SDS call:	PHONE: (480) 961-1220	CHEMTREC: (In the USA) 800-424-9300 (International) 703-527-3887

SECTION 2: HAZARDS IDENTIFICATION

HAZARDS OVERVIEW:

A clear to slightly hazy, green liquid having a unique characteristic odor. The liquid and mists can cause eye irritation and may cause slight to moderate skin irritation. Inhalation of aerosols or mists may cause irritation to the respiratory tract. Ingestion may cause irritation to the entire gastrointestinal tract with possible central nervous system effects.

CLASSIFICATION: MILD SKIN IRRITATION – HAZARD CATEGORY 3

SIGNAL WORD: WARNING

HAZARD STATEMENT: H316 - WARNING - causes mild skin irritation

PRECAUTIONARY STATEMENT: P332+P313; If skin irritation occurs: Get medical attention/advice.

SECTION 3: COMPOSITION & INFORMATION ON INGREDIENTS

COMPONENT	CAS #	OSHA HAZARD	WT %	ACGIH		OSHA	
				TLV _(TWA)	STEL	PEL _(TWA)	STEL
Potassium Thiosulfate	10294-66-3	Eye, Skin & Respiratory Irritant	25 ± 5	None	None	None	None
Ammonium Polyphosphate	68333-79-9	Eye Irritant; Slight to Moderate Skin & Respiratory Irritant	15 ± 5	None	None	None	None

NDA = No Data Available N/A = Not Applicable

SECTION 4: FIRST AID MEASURES

INHALATION:	If inhaled, immediately move to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Call a physician.
EYE CONTACT:	In case of contact, immediately flush eyes with plenty of clean running water for at least 15 minutes, lifting the upper and lower lids occasionally. Remove contact lenses, if worn. Get medical attention.
SKIN CONTACT:	In case of contact, flush skin with plenty of clean running water. Remove contaminated clothing and shoes, and wash before reuse. If irritation occurs and persists, get medical attention.
INGESTION:	If swallowed, DO NOT induce vomiting, unless directed to do so by medical personnel. Get medical attention immediately. If victim is fully conscious, give plenty of water to drink. Never give anything by mouth to an unconscious person.
NOTE TO PHYSICIANS:	Based on component information, this product is slightly toxic by ingestion. If a large amount is ingested, consideration should be given to careful endoscopy as stomach or esophageal irritation may occur, with possible central nervous system effects following absorption into the blood stream. Careful gastric lavage with an endotracheal tube in place should be considered. Treat exposure symptomatically.

SECTION 5: FIRE FIGHTING MEASURES

Flashpoint and Method: This product does not flash.

Flammable Limits (in air, % by volume) **Lower:** Not applicable **Upper:** Not applicable

Autoignition Temperature: Not applicable

GENERAL HAZARD: This product is an aqueous, very slightly alkaline solution of inorganic compounds. The Uniform Fire Code health hazard classification for this product is: **Irritant**. It may produce hazardous decomposition products.

FIRE FIGHTING INSTRUCTIONS: Use a water fog or spray to cool the containers exposed to the heat of a fire.

EXTINGUISHING MEDIA: Water, foam, CO2 or dry chemicals.

FIRE FIGHTING EQUIPMENT: Fire fighters should wear full protective equipment, including self-contained breathing apparatus.

HAZARDOUS COMBUSTION PRODUCTS: When heated to dryness and decomposition, it emits toxic Ammonia gas with sulfur oxides, phosphorus oxides, nitrogen oxides, and potassium oxide plus trace or ultra-trace toxic oxide amounts, of, iron, manganese, calcium, zinc, carbon and sodium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

RELEASE TO LAND: Wearing recommended protective equipment and clothing, dike the spill and pick up the bulk of liquid using pumps or a vacuum truck for potential recovery and return to the appropriate container. Absorb the remaining liquid using sand or a commercial absorbent; dispose as non-hazardous solid waste. Flush the spill area with water; collect the rinsates for disposal or sewer, as appropriate.

RELEASE TO WATER: Wear recommended protective equipment and clothing if contact with hazardous material can occur. Stop or divert water flow. Dike contaminated water and remove for disposal and/or treatment. As appropriate, notify all downstream users of possible contamination.

SECTION 7: HANDLING AND STORAGE

STORAGE TEMPERATURE: Ambient

STORAGE PRESSURE: Ambient

GENERAL: Store in a cool, dry, well-ventilated area, away from incompatible materials and products. Protect eyes, skin and clothing from contact with product. Wear recommended personal protective equipment when handling this product. Avoid breathing vapors or mists. Use with adequate ventilation. Do not take internally. Keep the container tightly closed when not in use. Wash thoroughly after handling this product.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

CONTROL MEASURES: Use a local or general mechanical exhaust ventilation system capable of maintaining emissions, in the work area, below those levels that may cause irritation.

RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT

RESPIRATOR: Respiratory protection is not normally required. If use creates mists or aerosols that may cause irritation, then a NIOSH approved full facepiece or half mask air-purifying cartridge respirator equipped with a good mist/particulate cartridge or supplied air, is required. **Note:** Always consult the respirator manufacturer's data when determining the suitability of respiratory protective devices prior to use.

EYES: Wear chemical goggles (recommended by ANSI Z87.1-1979), unless a full facepiece respirator is worn. **Note:** Always consult the protective eyewear manufacturer's data when determining the suitability of protective eyewear prior to use.

GLOVES: Wear Butyl Rubber, Neoprene or Natural Rubber gloves. **Note:** Always consult the glove manufacturer's permeation data when determining the suitability of gloves prior to use.

CLOTHING & EQUIPMENT: Wear a Butyl Rubber, Neoprene or Natural Rubber apron when handling this product. An eye wash station and safety shower should be available in the work area. **Note:** Always consult the clothing/equipment manufacturer's permeation data when determining the suitability of clothing/equipment prior to use.

FOOTWEAR: Wear Butyl Rubber, Neoprene or Natural Rubber boots. **Note:** Always consult the footwear manufacturer's permeation data when determining the suitability of footwear prior to use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear to slightly hazy, green	Bulk Density (pounds/ft³):	Not applicable
Physical State:	Liquid	Vapor Pressure:	No data available
Odor:	Unique, characteristic	Vapor Density (air=1):	No data available
Odor Threshold:	No data available	Evaporation Rate (n-Butyl Acetate=1):	Less than 1
Molecular Formula:	Mixture	VOC Content / Organic Matter:	Nil / 2.35%
Molecular Weight:	Not applicable	% Volatile:	Approximately 55
Boiling Point:	Greater than 100° C. (212° F.)	Solubility in H₂O:	Soluble
Freezing/Melting Point:	Less than 0° C. (32° F.)	Octanol/Water Partition Coefficient:	No data available
Specific Gravity:	1.35 – 1.45 @ 20° C.	pH (as is):	6.5 to 7.5
Density (pounds/gallon):	Approximately 11.68	pH (1% solution):	No data available

SECTION 10: STABILITY AND REACTIVITY

GENERAL:	This product is stable and hazardous polymerization will not occur.
CONDITIONS TO AVOID:	Do not store this product below 50° F (10° C) or above 90° F (30° C)
INCOMPATIBLE MATERIAL:	Oxidizers, and caustics or strong alkali.
HAZARDOUS DECOMPOSITION PRODUCTS:	When heated to dryness and decomposition, it emits toxic Ammonia gas with toxic oxides of sulfur phosphorus, nitrogen, and potassium plus trace or ultra-trace toxic oxide amounts, of, iron, manganese, calcium, zinc, carbon and sodium.
SENSITIVITY TO MECHANICAL IMPACT:	This product is <u>not</u> sensitive to mechanical impact.
SENSITIVITY TO STATIC DISCHARGE:	This product is <u>not</u> sensitive to static discharge.

SECTION 11: TOXICOLOGICAL INFORMATION

Components:	<u>Potassium Thiosulfate</u>	<u>Ammonium Polyphosphate</u>
Eye Contact:	No data available	No data available
Skin Contact:	No data available	No data available
Oral Rat LD₅₀:	Greater than 2,000 mg/kg	Greater than 2,000 mg/kg
Dermal Rabbit LD₅₀:	Greater than 5,000 mg/kg	No data available (Dermal Rat LD ₅₀ : Greater than 5,000 mg/kg)
Inhalation Rat LC₅₀:	No data available	No data available
Human Data:	No data available	No data available
Other Toxicological Data:	No data available	No data available
Carcinogenicity:	No data available	No data available
Teratogenicity:	No data available	No data available
Mutagenicity:	No data available	No data available
Synergistic Products:	None reported	None reported
Target Organs:	Eyes, Skin, Mucous membranes & Lungs	Eyes, Skin & Lungs
Medical Conditions Aggravated By Exposure:	Skin or Respiratory disorders	Skin or Respiratory disorders

SECTION 12: ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE:	This product is soluble in water and is not expected to significantly affect the pH of water. No specific environmental fate data is available.
ENVIRONMENTAL CONSIDERATIONS:	The aquatic toxicity for this product has not been determined. However, the Potassium Thiosulfate aquatic toxicity on static acute 96 hour LC ₅₀ are, for Sheepshead minnow is: Greater than 1,000 mg/Liter, and for Mysid shrimp is: 89 mg/Liter. The aquatic toxicity for Ammonium Polyphosphate 96 hour Rainbow trout LC ₅₀ is: Greater than 101 mg/Liter.

SECTION 13: DISPOSAL CONSIDERATIONS

RCRA 40 CFR 261 CLASSIFICATION: Non-RCRA Hazardous Waste

U.S. EPA WASTE NUMBER/DESCRIPTION: Not Applicable

If this product is disposed of as shipped, it does not meet the criteria of a hazardous waste as defined under 40 CFR 261, in that it does not exhibit the characteristics of a hazardous waste of Subpart C, nor is it listed as a hazardous waste under Subpart D due to toxicity. As a non-hazardous liquid waste, it should be disposed of in accordance with all local, state, and federal regulations. Consult state or local officials for proper disposal method.

SECTION 14: TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME: Not DOT Regulated (United States)
Hazard Class: N/A **UN Number:** N/A **Packing Group:** N/A
Primary Label: None **Subsidiary Label(s):** None
Primary/Subsidiary Placards: None
DOT Reportable Quantity (RQ): Not listed **RQ for Product:** No
Marine Pollutant: No
2012 North American Emergency Response Guidebook No.: N/A

TDG PROPER SHIPPING NAME: NOT RESTRICTED
Hazard Class: N/A **UN Number:** None **Packing Group:** N/A
Primary Label: None **Subsidiary Label(s):** None
Primary/Subsidiary Placards: None
TDG Reportable Quantity (RQ): * Not applicable
TDG Schedule XII: Not listed
Regulated Limit (RL): ** Not listed **RL for Product:** N/A
Other Shipping Information: None

* Canadian Transportation of Dangerous Goods Regulations (TDGR), Part IX, Table I, Quantities or levels for Immediate Reporting: releases of reportable quantities, RQ, that meet the definition of a "dangerous occurrence" (a threat to life, health, property, or the environment) must be reported to the appropriate authorities as outlined in TDGR 9.13(1) and 9.14(1). ** Reporting to Environment Canada is required for any releases exceeding the regulated limits, RL, of 9.2 materials (primary or secondary). The regulated limits are found in Schedule XIII of the TDGR.

SECTION 15: REGULATORY INFORMATION

COMPONENTS:	<u>Potassium Thiosulfate</u>	<u>Ammonium Polyphosphate</u>
<u>OSHA Target Organs:</u>	Eyes, Skin, Mucous membranes & Lungs	Eyes, Skin & Lungs
<u>Carcinogenic Potential:</u>		
Regulated by OSHA:	No	No
Listed on NTP Report:	No	No
Listed by IARC:	No	No
IARC Group:	Not applicable	Not applicable
ACGIH Appendix A:	Not listed	Not listed
A1 Confirmed Human:	Not applicable	Not applicable
A2 Suspected Human:	Not applicable	Not applicable

U.S. EPA Requirements

Release Reporting

CERCLA (40 CFR 302)

Listed Substance:	Not listed	Not listed
Reportable Quantity:	Not applicable	Not applicable
Category:	Not applicable	Not applicable
RCRA Waste No.:	Not applicable	Not applicable
Unlisted Substance:	Not applicable	Not applicable
Reportable Quantity:	Not applicable	Not applicable
Characteristic:	Not applicable	Not applicable
RCRA Waste No.:	Not applicable	Not applicable

SECTION 15: REGULATORY INFORMATION (Continued from Page 4)

COMPONENTS: Potassium Thiosulfate Ammonium Polyphosphate

SARA TITLE III

Section 302 & 303 (40 CFR 355):

Listed Substance:	Not listed	Not listed
Reportable Quantity:	Not applicable	Not applicable
Planning Threshold:	Not applicable	Not applicable

Section 311 & 312 (40 CFR 370):

Hazard Categories (product):	Fire: <u>N</u>	Sudden Release of Pressure: <u>N</u>	Reactive: <u>N</u>	Acute Health: <u>Y</u>	Chronic Health: <u>N</u>
Planning threshold:	10,000 pounds	10,000 pounds			

Section 313 (40 CFR 372):

Listed Toxic Chemical:	Not listed	Yes (Aqua Ammonia)
Reporting Threshold:	Not applicable	10,000 pounds

U.S. TSCA Status

Listed (40 CFR 710):	Yes	Yes
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State Regulations

State of California: Safe Drinking Water and Toxins Enforcement Act, 1986 (Proposition 65):

Carcinogen:	No	No
Reproductive Toxin:	No	No

Other Regulations

State Right To Know Laws:	None Known
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Canadian Regulations

Product Information:

Controlled Product:	Yes
WHMIS Hazard Symbols:	<i>Material Causing Other Toxic Effects</i>
WHMIS Class & Division:	D.2B

Ingredient Information:

IDL Substance:	No	No
DSL or NDSL Lists:	DSL	DSL

SECTION 16: OTHER INFORMATION

EPA Registration number: Not applicable

Approved Product Uses: Used as a part of a plant nutrition program.

Special Notes:

This product is not manufactured, or formulated to contain substances, which the State of California has found to cause cancer and/or birth defects or other reproductive harm. However, as it contains mined minerals, this product may contain trace (parts per million) or ultra-trace (parts per billion) of elements known to the State of California to cause cancer, birth defects or other reproductive harm.

Special instructions: Store 38 Special in a cool, dry, well-ventilated area away from incompatible materials and products. When making solutions, always add this product to water, or other solutions, with adequate mixing to ensure a uniform solution. Do not add this product to strong alkali or caustic materials or products, as this will liberate toxic, corrosive Ammonia gas.

SDS Revision Information: Revised Date: 11/15/17

SDS Distributed by: Bio Huma Netics, Inc.

Prepared By:	Frank S. Pidgeon, Sr. EHSS Director	Date Prepared:	October 20, 2014
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