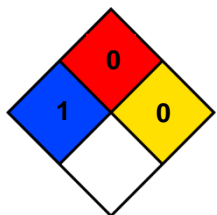


SAFETY DATA SHEET

HUMA GRO 44 Mag



HMIS	
HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0
PPE	A

SECTION 1: CHEMICAL PRODUCT & COMPANY IDENTIFICATION

PRODUCT IDENTIFIER:	HUMA GRO 44 Mag	Product # 080
GENERAL USE:	Used as a part of a plant nutrition program.	
PRODUCT DESCRIPTION:	A clear, light green liquid having no characteristic odor.	
SUPPLIER INFORMATION:	Bio Huma Netics 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, light green, moderately acidic liquid having no 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 central nervous system depression, lack of reflexes, sweating, flushing, decreased blood pressure and hypocalcemia.

CLASSIFICATION: HAZARD CATEGORY 3 - MILD SKIN IRRITATION

SIGNAL WORD: WARNING

HAZARD STATEMENT: H316 - WARNING - causes mild skin irritation

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

CLASSIFICATION: HAZARD CATEGORY 5 - MAY BE HARMFUL IF SWALLOWED

SIGNAL WORD: WARNING

HAZARD STATEMENT: H303 - WARNING – may be harmful if swallowed

PRECAUTIONARY STATEMENT: P312; Call a poison center/doctor/physician if you feel unwell

SECTION 3: COMPOSITION & INFORMATION ON INGREDIENTS

COMPONENT	CAS #	OSHA HAZARD	WT %	ACGIH		OSHA	
				TLV _(TWA)	STEL	PEL _(TWA)	STEL
Magnesium Sulfate	7487-88-9	Eye Irritant; Slight to Moderate Skin & Respiratory Irritant; Slightly toxic by Ingestion with Central Nervous System Effects	25 ± 3	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 large quantities of this product are swallowed, call a physician immediately. DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.
NOTE TO PHYSICIANS:	The hazards associated with this product are mainly due to the toxicity of the Magnesium Sulfate and its irritant properties to eyes, skin and mucous membranes. If a large amount of this product is swallowed, 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 primarily an aqueous solution of an inorganic Magnesium Sulfate salt with trace amounts of other inorganic salts. The Uniform Fire Code health hazard classification for this product is: **Irritant**. This product may produce hazardous decomposition products.

FIRE FIGHTING INSTRUCTIONS: **EXTINGUISHING MEDIA:** Water, foam, CO₂ or dry chemicals.
Use a water fog or spray to cool the containers exposed to the heat of a fire.

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 magnesium oxide and sulfur oxides, with trace or ultra-trace toxic oxide amounts, of nitrogen, phosphorus, potassium, iron, zinc, manganese, calcium 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, or absorb the liquid in sand or a commercial absorbent. Place in approved containers for recovery, disposal, or satellite accumulation. Neutralize the acidity, of the remaining liquid, using soda ash, lime, or other agent appropriate for neutralizing acidic liquids. 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 this product. Wear recommended personnel protective equipment. Avoid breathing vapors, mists or aerosols. Use with adequate ventilation. Keep the containers 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, light green	Bulk Density (pounds/ft³):	Not applicable
Physical State:	Liquid	Vapor Pressure:	No data available
Odor:	No 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:	Nil
Molecular Weight:	Not applicable	% Volatile:	Approximately 74
Boiling Point:	Greater than 100° C. (212° F.)	Solubility in H₂O:	Complete
Freezing/Melting Point:	Less than 0° C. (32° F.)	Octanol/Water Partition Coefficient:	No data available
Specific Gravity:	1.25 – 1.35 @ 20° C.	pH (as is):	1.5 to 2.5
Density (pounds/gallon):	Approximately 10.9	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: Strong alkali & caustics, cyanides, sulfides, sulfites and chlorine releasers.

HAZARDOUS DECOMPOSITION PRODUCTS: When heated to dryness and decomposition, it emits toxic oxides of magnesium and sulfur, with trace or ultra-trace toxic oxide amounts, of nitrogen, phosphorus, potassium, iron, zinc, manganese, calcium and sodium

SENSITIVITY TO MECHANICAL IMPACT: This product is not sensitive to mechanical impact.

SENSITIVITY TO STATIC DISCHARGE: This product is not sensitive to static discharge.

SECTION 11: TOXICOLOGICAL INFORMATION

Components:	<u>Magnesium Sulfate</u>
Eye Contact:	No data available
Skin Contact:	No data available
Oral Rat LD₅₀:	No data available (Oral Mouse LD ₅₀ : 5 gm/kg)
Dermal Rabbit LD₅₀:	No data available (Subcutaneous Rabbit LD ₅₀ : 1,750 mg/kg (Toxic Effects: Behavioral – Somnolence (general depressed activity); (Behavioral – Convulsions or effect on seizure threshold).)
Inhalation Rat LC₅₀:	No data available
Human Data:	Oral Man TD _{Lo} : 428 mg/kg (Toxic Effects: Behavioral – Muscle weakness)
Other Toxicological Data:	Subcutaneous Rat LD ₅₀ : 1,200 mg/kg
Carcinogenicity:	No data available
Teratogenicity:	Intravenous Woman TD _{Lo} : 320 mg/kg (39 Weeks pregnant) Effects on Embryo or Fetus – Other effects
Mutagenicity:	Bacteria – E Coli Phage Inhibition: 800 umol/Liter
Synergistic Products:	None reported
Target Organs:	Eyes, Lungs, Gastrointestinal & Central Nervous Systems
Medical Conditions Aggravated By Exposure:	Respiratory or Gastrointestinal disorders

SECTION 12: ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE:

This product is completely 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.

SECTION 13: DISPOSAL CONSIDERATIONS

RCRA 40 CFR 261 CLASSIFICATION: Non-RCRA Hazardous Waste (United States)

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: Magnesium Sulfate

OSHA Target Organs: Eyes, Lungs, Gastrointestinal & Central Nervous Systems

Carcinogenic Potential:

Regulated by OSHA: No

Listed on NTP Report: No

Listed by IARC: No

IARC Group: Not applicable

ACGIH Appendix A: Not listed

A1 Confirmed Human: Not applicable

A2 Suspected Human: Not applicable

U.S. EPA Requirements

Release Reporting

CERCLA (40 CFR 302)

Listed Substance: Not listed

Reportable Quantity: Not applicable

Category: Not applicable

RCRA Waste No.: Not applicable

Unlisted Substance: Not applicable

Reportable Quantity: Not applicable

Characteristic: Not applicable

RCRA Waste No.: Not applicable

SECTION 15: REGULATORY INFORMATION (Continued from Page 4)

COMPONENTS: Magnesium Sulfate

SARA TITLE III

Section 302 & 303 (40 CFR 355):

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

Section 311 & 312 (40 CFR 370):

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

Section 313 (40 CFR 372):

Listed Toxic Chemical: Not listed
Reporting Threshold: Not applicable

U.S. TSCA Status

Listed (40 CFR 710): Yes

State Regulations

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

Carcinogen: No
Reproductive Toxin: No

Other Regulations

State Right To Know Laws: None Known

Canadian Regulations

Product Information:

Controlled Product: Yes
WHMIS Hazard Symbols: **Material Causing Other Toxic Effects**
WHMIS Class & Division: **D.2B**

Ingredient Information:

IDL Substance: No
DSL or NDSL Lists: 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:

When making solutions, always add 44 Mag (Product# 080) to water, or other solutions, with adequate mixing to ensure a uniform solution. Do not add this product to hypochlorite bleaches, chlorine sanitizers or chlorinated cleaners as this may liberates toxic, corrosive Chlorine gas.

SDS Revision Information: Revised Date: 11/19/15

SDS Distributed by: Bio Huma Netics

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