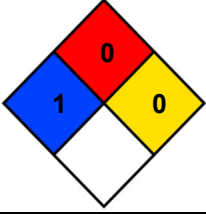




SAFETY DATA SHEET

Probiotic Solutions® Micatrol®



HMIS	
HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0
PPE	A

SECTION 1: CHEMICAL PRODUCT & COMPANY IDENTIFICATION

PRODUCT IDENTIFIER:	Probiotic Solutions® Micatrol®	Product# 333
GENERAL USE:	Used to catalyze the breakdown of chemical and petroleum compounds and promotes microbial digestion resulting in biodegradation.	
PRODUCT DESCRIPTION:	A clear to slightly hazy, light amber liquid having a slight 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, light amber, slightly alkaline liquid having a slight characteristic odor. The mists and liquid can cause irritation, possibly severe, to the eyes, and may cause irritation to the skin and respiratory tract. This product may be slightly toxic by ingestion, of a large amount.

CLASSIFICATION: 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.

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
Diammonium Phosphate	7783-28-0	Eye Irritant; Slight to Moderate Skin & Respiratory Irritant; Slightly Toxic by Ingestion; Central Nervous System toxin	2 ± 1	None	None	None	None
Cobalt Chloride	7646-79-9	Eye, Skin & Respiratory Irritant; Toxic by Ingestion; Possible Human Carcinogen - IARC	0.2 ± 0.1	0.02 mg/m ³ (as Co) (A3)	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 if irritation persists.
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:	Based on component information, this product may be 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, slightly alkaline solution of inorganic compounds. The Uniform Fire Code health hazard classification for this product is: Irritant . It may produce hazardous mists and hazardous decomposition products.		
FIRE FIGHTING INSTRUCTIONS:	EXTINGUISHING MEDIA:	Water, foam, CO ₂ or dry chemicals. Use a water spray or fog 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 Ammonia gas, with toxic carbon monoxide, carbon dioxide, phosphorus oxides and nitrogen oxides, plus trace or ultra-trace toxic oxide amounts, of iron, sulfur, calcium, cobalt, manganese, magnesium, potassium, zinc and sodium plus irritating smoke.		

SECTION 6: ACCIDENTAL RELEASE MEASURES

RELEASE TO LAND:	Wearing recommended protective equipment and clothing, dike spill using soil, sand or compatible commercial absorbent material. Pick up bulk of liquid using pumps or vacuum truck or absorb liquid in sand or commercially absorbent material. Place in approved containers for recovery, disposal or satellite accumulation. Neutralize remaining traces of product with dilute acid. The spill area should be covered liberally with sodium bicarbonate. Then rinse area and collect 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. Do not store in direct sunlight. Protect the eyes, skin and clothing from contact with this product. Wear the recommended protective equipment. Avoid breathing the vapors or mists. Use with adequate ventilation. Do not take internally. 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 the ACGIH-TLV or those levels that may cause irritation.

RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT

RESPIRATOR: For exposures above the ACGIH-TLV or those levels that may cause irritation, wear a NIOSH-approved full facepiece or half mask air-purifying cartridge respirator equipped with a good mist / particulate cartridge or supplied air. **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: Viton, Butyl Rubber, or Neoprene 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 or Neoprene apron or full protective clothing 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 or Neoprene 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, light amber	Bulk Density (pounds/ft³):	Not applicable
Physical State:	Liquid	Vapor Pressure:	No data available
Odor:	Slight, characteristic	Vapor Density (air=1):	No data available
Odor Threshold:	No data available	Evaporation Rate (n-Butyl Acetate=1):	No data available
Molecular Formula:	Mixture	VOC Content / Organic Matter:	Nil / Not applicable
Molecular Weight:	Not applicable	% Volatile:	Approximately 94
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:	1.00 – 1.10 @ 20° C.	pH (as is):	7.5 - 9.5
Density (pounds/gallon):	Approximately 8.34	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 and oxidizers.

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

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>Diammonium Phosphate</u>	<u>Cobalt Chloride</u>
Eye Contact:	No data available	No data available
Skin Contact:	No data available	No data available
Oral Rat LD ₅₀ :	Greater than 1,000 mg/kg	80 mg/kg
Dermal Rabbit LD ₅₀ :	No data available	No data available (Subcutaneous Rabbit LD ₅₀ : 200 mg/kg)
Inhalation Rat LC ₅₀ :	No data available	No data available
Human Data:	No data available	Oral Child TD _{Lo} : 48 mg/kg; Toxic Effects; Behavioral – Anorexia (human); Endocrine – Thyroid (goiter)
Other Toxicological Data:	No data available	Dermal Rat LD _{Lo} : 2 gm/kg; Toxic Effects: Nutritional and gross metabolic – Weight loss or decreased weight gain
Carcinogenicity:	No data available	Subcutaneous Rat TD _{Lo} : 400 mg/kg/19 Days – I; Toxic Effects: Tumorigenic – Carcinogenic by RTECS criteria; Tumors at site of application
Teratogenicity:	No data available	Oral Rat TD _{Lo} : 11 mg/kg (female 1-22 Days pregnant); Effects on Fertility – Post-implantation mortality
Mutagenicity:	No data available	Human DNA Inhibition, HeLa cell: 1 mmol/Liter
Synergistic Products:	None reported	None reported
Target Organs:	Eyes, Skin, Lungs & Central Nervous System	Eyes, Skin, Mucous membranes & Lungs
Medical Conditions Aggravated By Exposure:	Skin or Respiratory disorders	Skin or Respiratory disorders

SECTION 12: ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE:

This product is slightly heavier than water and soluble in water. This product may slightly affect the pH of water. No specific environmental fate data has been found.

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-RCRA 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: Not Applicable **UN Number:** N/A **Packing Group:** N/A
Primary Label: N/A **Subsidiary Label(s):** N/A
Primary/Subsidiary Placards: N/A

DOT Reportable Quantity (RQ): Not Listed **RQ for Product:** Not Applicable
Marine Pollutant: No

2012 North American Emergency Response Guidebook No.: Not Applicable

TDG PROPER SHIPPING NAME: Phosphoric Acid Solution
Hazard Class: Not Applicable **UN Number:** N/A **Packing Group:** N/A
Primary Label: N/A **Subsidiary Label(s):** N/A
Primary/Subsidiary Placards: N/A

TDG Reportable Quantity (RQ): * Not Applicable
TDG Schedule XII: Not Applicable
Regulated Limit (RL): ** Not Listed **RL for Product:** Not Applicable
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>Diammonium Phosphate</u>	<u>Cobalt Chloride</u>
<u>OSHA Target Organs:</u>	Eyes, Skin, Lungs & Central Nervous System	Eyes, Skin, Mucous membranes & Lungs
<u>Carcinogenic Potential:</u>		
Regulated by OSHA:	No	No
Listed on NTP Report:	No	No
Listed by IARC:	No	Yes
IARC Group:	Not applicable	Group 2B
ACGIH Appendix A:	Not listed	Yes (A3)
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

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>Y</u>
Planning threshold:	10,000 pounds	10,000 pounds			

SECTION 15: REGULATORY INFORMATION (Continued from Page 5)

COMPONENTS:	<u>Diammonium Phosphate</u>	<u>Cobalt Chloride</u>
Section 313 (40 CFR 372):		
Listed Toxic Chemical:	Yes (Aqua Ammonia)	Yes (Cobalt compounds)
Reporting Threshold:	10,000 pounds	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:	NJ, CA
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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.2A; D.2B

Ingredient Information:

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

SECTION 16: OTHER INFORMATION

EPA Registration number: Not applicable

Approved Product Uses: Used to catalyze the breakdown of chemical and petroleum compounds and promotes microbial digestion resulting in biodegradation.

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 dilutions, always add Micatrol® to water, or aqueous solutions, with adequate mixing to ensure a uniform solution. Do not add this product to strong alkali or caustic materials, as this can liberate toxic, corrosive Ammonia gas.

SDS Revision Information: Revised Date: 9/08/2020

SDS Distributed by: Bio Huma Netics, Inc.

Prepared By: Frank S. Pidgeon, Sr. EHSS Director	Date Prepared: October 21, 2014
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