



# SAFETY DATA SHEET Probiotic Solutions® Kleenup™

HMIS			
HEALTH	2		
FLAMMABILITY	0		
PHYSICAL HAZARD	0		
PPE	В		

PRODUCT IDENTIFIER: Probiotic Solutions® Kleenup™ Product# 420

**GENERAL USE:** Used to improve soils and break down chemicals.

**PRODUCT DESCRIPTION:** A clear to hazy brown liquid having a slight characteristic odor.

SUPPLIER INFORMATION: Bio Huma Netics, Inc.

1331 W Houston Avenue

Gilbert, AZ 85233

For Additional SDS call: PHONE: (480) 961-1220

#### **EMERGENCY PHONE NUMBERS**

CHEMTREC: (In the USA) 800-424-9300

(International) 703-527-3887

# **SECTION 2: HAZARDS IDENTIFICATION**

HAZARDS OVERVIEW: A clear to hazy, brown liquid, having a slight characteristic odor. The liquid and mists may be irritating to the eyes and skin. Inhalation of mists may be irritating to the entire respiratory tract. Ingestion of this product may cause gastrointestinal irritation, cardiovascular and central nervous system effects.



**CLASSIFICATION: HAZARD CATEGORY 4** 

**SIGNAL WORD: WARNING** 

HAZARD STATEMENT: H302; Harmful if Swallowed

**PRECAUTIONARY STATEMENT:** P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell, P330; Rinse Mouth P264; Wash hands thoroughly after handling, P270; Do not eat, drink or smoke when using this product.

# **SECTION 3: COMPOSITION & INFORMATION ON INGREDIENTS**

				ACGIH		OSHA	
COMPONENT	CAS#	OSHA HAZARD	<u>WT %</u>	$TLV_{(TWA)}$	STEL	$PEL_{(TWA)}$	STEL
Ammonium Nitrate	6484-52-2	Oxidizer; Eye, Skin & Respiratory Irritant; Blood toxin	21 ± 2	None	None	None	None
Urea	57-13-6	Eye Irritant; Slight to Moderate Skin & Respiratory Irritant; Slightly Toxic by Chronic Dermal Contact & Inhalation, with Cardiovascular & Central Nervous System effects.	17 ± 2	None AIHA WEEL: 10 mg/m³	None	None	None
Diammonium Phosphate	7783-28-0	Eye Irritant; Slight to Moderate Skin & Respiratory Irritant; Slightly Toxic by Ingestion: Central Nervous System toxin	2.25 ± 1	None	None	None	None
Ammonium Sulfate	7783-20-2	Eye, Skin & Respiratory Irritant; Human Central Nervous System Effects by Ingestion	1.5 ± 1	None	None	None	None
Cobalt Chloride	7646-79-9	Eye, Skin & Respiratory Irritant; Toxic by Ingestion; Possible Human Carcinogen - IARC	0.11± 0.1	0.02 mg/m³ (as Co) (A3)	None	None	None
				NDA = I	No Data Available	N/A = N	ot 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.

In case of contact, immediately flush eyes with plenty of clean running water for at least 15 minutes, lifting the upper **EYE CONTACT:** 

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 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) Not applicable Upper: Not applicable Lower:

**Autoignition Temperature:** Not applicable

**GENERAL HAZARD:** This product is an agueous, very slightly acidic solution of organic and inorganic compounds with small amounts

of mineral salts. The Uniform Fire Code health hazard classification for this product is: Irritant. It may produce

hazardous decomposition products.

FIRE FIGHTING INSTRUCTIONS: **EXTINGUISHING MEDIA:** Water, foam, CO<sub>2</sub> 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, chloride

compounds, carbon monoxide, carbon dioxide, phosphorus oxides, sulfur oxides and nitrogen oxides with trace or ultra-trace toxic oxide amounts, of, iron, manganese, magnesium, potassium, calcium, zinc, cobalt, boron and sodium plus irritating smoke.

# **SECTION 6: ACCIDENTAL RELEASE MEASURES**

**RELEASE TO** LAND:

Wearing recommended protective equipment and clothing, dike the spill and pick up the bulk of the liquid using pumps or vacuum truck for disposal in accordance with Federal, State and local regulations. Absorb the remaining liquid using sand, or commercially absorbent material; dispose as Federal, State and local requirements dictate. Flush the

spill area with water; collect the rinsates for disposal as the regulations require.

**RELEASE TO** 

Wear recommended protective equipment and clothing if contact with hazardous material can occur. Stop or divert WATER: 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 the eyes, skin and

clothing from contact with this 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** Use a local or general, mechanical exhaust ventilation system capable of maintaining emissions, in the work area,

**MEASURES:** below the OSHA-PEL, ACGIH-TLV or levels that may cause irritation.

RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT

**RESPIRATOR:** Respiratory protection is not normally required. If use produces mists or aerosols that may cause irritation, a NIOSH

approved half mask or full facepiece respirator equipped with a good mist / particulate cartridge or supplied air is recommended. **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 or face shield is

worn. Note: Always consult the protective eyewear manufacturer's data when determining the suitability of

protective eyewear prior to use.

GLOVES: Wear Neoprene, Nitrile, Butyl Rubber or Natural Rubber gloves. Note: Always consult the glove manufacturer's

permeation data when determining the suitability of gloves prior to use.

**CLOTHING &** If contact is likely, wear a Neoprene, Nitrile, Butyl Rubber or Natural Rubber apron when handling this product. An **EQUIPMENT:** eye wash station and safety shower should be available in the work area. **Note:** Always consult the

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 Neoprene, Nitrile, Butyl Rubber boots, 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:	A clear to hazy brown liquid	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):	Less than 1			
Molecular Formula:	Mixture	VOC Content / Organic Matter:	NA / 8.0%			
Molecular Weight:	Not applicable	% Volatile:	Approximately 55.5			
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:	1.13 – 1.23 @ 20° C.	pH (as is):	5.5 - 6.5			
Density (pounds/gallon):	Approximately 9.4	pH (1% solution):	Approximately 7.0			

### **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, reducing agents, caustics and strong alkali.

HAZARDOUS DECOMPOSITION PRODUCTS: When heated to dryness and decomposition, it emits toxic Ammonia gas, chloride

compounds and toxic oxides of carbon, phosphorus, sulfur and nitrogen with trace or ultra-trace toxic oxide amounts, of, iron, manganese, magnesium, potassium,

calcium, zinc, cobalt, boron and sodium plus irritating smoke.

**SENSITIVITY TO MECHANICAL IMPACT:** This product is <u>not</u> sensitive to mechanical impact.

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

# **SECTION 11: TOXICOLOGICAL INFORMATION**

**Ammonium Nitrate** <u>Urea</u> Components:

**Eye Contact:** No data available No data available

**Skin Contact:** No data available No data available Oral Rat LD50: 2,217 mg/kg 8,471 mg/kg

Dermal Rabbit LD<sub>50</sub>: No data available No data available (Rabbit, Subcutaneous LD<sub>Lo</sub>: 3 gm/kg)

No data available (Rat, Inhalation, Chronic - Multiple Dose, Inhalation Rat LC<sub>50</sub>: No data available 288 mg/m<sup>3</sup>/17 weeks; Toxic effects: Kidney, Ureter & Bladder

 Other changes in urine composition; Blood – Other changes; Nutritional and gross metabolic changes.)

**Human Data:** No data available Dermal Human Standard Draize Test: 22 mg/3 days; Mild

Other Toxicological Data: No data available Rat, Dermal, Chronic – Multiple Dose, 3,024 mg/kg/4 weeks;

Toxic effects: Liver - Changes in Liver weight; Endocrine -

Changes in Thymus weight; Death.

No data available Oral Rat TD<sub>Lo</sub>: 821 gm/kg/1 year; Tumorigenic – Neoplastic by Carcinogenicity: RTECS criteria; Blood - Tumors; Blood - Lymphomax

including Hodgkin's disease.

Teratogenicity: No data available Intraplacental Woman TDLo: 1,400 mg/kg (female 16 Weeks

pregnant); Effects on Fertility - Abortion

Mutagenicity: No data available Human DNA Inhibition; lymphocyte: 600 mmol/Liter

Synergistic Products: None reported None reported

**Target Organs:** Eyes, Skin, Mucous membranes, Lungs & Blood Eyes, Skin, Mucous membranes, Lungs, Cardiovascular &

Central Nervous Systems

**Medical Conditions** 

Skin or Respiratory disorders Skin, Respiratory or Cardiac disorders Aggravated By Exposure:

Components: **Diammonium Phosphate Ammonium Sulfate** 

No data available No data available Eye Contact: **Skin Contact:** No data available No data available

Oral Rat LD<sub>50</sub>: Greater than 1,000 mg/kg 2,840 mg/kg

Dermal Rabbit LD<sub>50</sub>: No data available No data available Inhalation Rat LC<sub>50</sub>: No data available No data available

**Human Data:** No data available Oral Man TD<sub>Lo</sub>: 1,500 mg/kg (Gastrointestinal effects)

Other Toxicological Data: No data available Intraperitoneal Mouse LD<sub>50</sub>: 610 mg/kg

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 & Central Nervous Eyes, Skin, Lungs & Central Nervous System

System

**Medical Conditions** 

Skin or Respiratory disorders Skin or Respiratory disorders Aggravated By Exposure:

# SECTION 11: TOXICOLOGICAL INFORMATION (Continued from Page 4)

Components: <u>Cobalt Chloride</u>

Eye Contact: No data available
Skin Contact: No data available

Oral Rat LD<sub>50</sub>: 80 mg/kg

Dermal Rabbit LD₅₀: No data available (Subcutaneous Rabbit LD⊾₀: 200 mg/kg)

Inhalation Rat LC<sub>50</sub>: No data available

Human Data: Oral Child TD<sub>Lo</sub>: 48 mg/kg; Toxic Effects; Behavioral – Anorexia (human); Endocrine – Thyroid (goiter)

Other Toxicological Data: Dermal Rat LD<sub>Lo</sub>: 2 gm/kg; Toxic Effects: Nutritional and gross metabolic – Weight loss or decreased weight gain

Carcinogenicity: Subcutaneous Rat TD<sub>Lo</sub>: 400 mg/kg/19 Days − I; Toxic Effects: Tumorigenic − Carcinogenic by RTECS criteria; Tumors at

site of application

Teratogenicity: Oral Rat TD<sub>Lo</sub>: 11 mg/kg (female 1-22 Days pregnant); Effects on Fertility – Post-implantation mortality

Mutagenicity: Human DNA Inhibition, HeLa cell: 1 mmol/Liter

Synergistic Products: None reported

Target Organs: Eyes, Skin, Mucous membranes & Lungs

**Medical Conditions** 

Aggravated By Exposure: Skin or Respiratory disorders

# **SECTION 12: ECOLOGICAL INFORMATION**

#### **ENVIRONMENTAL FATE:**

This product is heavier than water, completely soluble in water and will affect the pH of the water. Inorganic phosphates, in contact with soil, sub-surface or surface waters, may be taken up by plants and utilized as essential nutrients. Phosphates may also form precipitates, usually with Calcium or Magnesium. The resultant compounds are insoluble, becoming part of the soil.

#### **ENVIRONMENTAL CONSIDERATIONS:**

The aquatic toxicity for this product is related to the pH of the water. For Rainbow trout, the reported  $LC_{50}$  is about a pH of 4.0 for a 7 day bioassay. Other species may vary a bit from this pH level, but all are susceptible to acidic pH conditions.

### **SECTION 13: DISPOSAL CONSIDERATIONS**

RCRA 40 CFR 261 CLASSIFICATON: 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: N/A UN Number: N/A Packing Group: N/A

Primary Label: None Required Subsidiary Label(s): None Required

Primary/Subsidiary Placards: None Required

DOT Reportable Quantity (RQ): Not Listed RQ for Product: Not Applicable

Marine Pollutant: N/A

2012 North American Emergency Response Guidebook No.: Not Applicable

TDG PROPER SHIPPING NAME: NOT RESTRICTED

Primary Label: None Required Subsidiary Label(s): None Required

Primary/Subsidiary Placards: None Required

TDG Reportable Quantity (RQ): \* Not Applicable

TDG Schedule XII: N/A

Regulated Limit (RL): \*\* Not Listed RL for Product: N/A

Other Shipping Information: None

<sup>\*</sup> 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:	Ammonium Nitrate	<u>Urea</u>	Diammonium Phosphate	Ammonium Sulfate		
OSHA Target Organs:	Eyes, Skin, Mucous membranes, Lungs & Blood	Eyes, Skin, Mucous membranes, Lungs, Cardiovascular & Central Nervous Systems	Eyes, Skin, Lungs & Central Nervous System	Eyes, Skin, Mucous membranes, Lungs & Central Nervous System		
Carcinogenic Potential:						
Regulated by OSHA:	No	No	No	No		
Listed on NTP Report:	No	No	No	No		
Listed by IARC:	No	No	No	No		
IARC Group:	Not applicable	Not applicable	Not applicable	Not applicable  Not listed		
ACGIH Appendix A: A1 Confirmed Human:	Not listed Not applicable	Not listed Not applicable	Not listed Not applicable	Not applicable		
A2 Suspected Human:	Not applicable	Not applicable	Not applicable	Not applicable  Not applicable		
U.S. EPA Requirements						
Release Reporting CERCLA (40 CFR 302)						
Listed Substance:	Not listed	Not listed	Not listed	Not listed		
Reportable Quantity:	Not applicable	Not applicable	Not applicable	Not applicable		
Category:	Not applicable	Not applicable	Not applicable	Not applicable		
RCRA Waste No.:	Not applicable	Not applicable	Not applicable	Not applicable		
Unlisted Substance: Reportable Quantity:	Not applicable Not applicable	Not applicable Not applicable	Not applicable Not applicable	Not applicable  Not applicable		
Characteristic:	Not applicable  Not applicable	Not applicable	Not applicable	Not applicable		
RCRA Waste No.:	Not applicable	Not applicable	Not applicable	Not applicable		
SARA TITLE III						
Section 302 & 303 (40 CFR 355):						
Listed Substance:	Not listed	Not listed	Not listed	Not listed		
Reportable Quantity:	Not applicable	Not applicable	Not applicable	Not applicable		
Planning Threshold:	Not applicable	Not applicable	Not applicable	Not applicable		
Section 311 & 312 (40 CFR 370):						
Hazard Categories ( <b>product</b> ): Planning threshold:	Fire: N Sudden Release 10,000 pounds	e of Pressure: <u>N</u> Reacti 10,000 pounds	ve: <u>N</u> Acute Health: <u>Y</u> 10,000 pounds	Chronic Health: <u>N</u> 10,000 pounds		
Section 313 (40 CFR 372):						
Listed Toxic Chemical:	Yes (Aqua Ammonia & Nitrate compounds)	Not listed	Yes (Aqua Ammonia)	Yes (Aqua Ammonia)		
Reporting Threshold:	10,000 pounds	Not applicable	10,000 pounds	10,000 pounds		
U.S. TSCA Status						
Listed (40 CFR 710):	Yes	Yes	Yes	Yes		
State Regulations State of California: Safe Drinkin	g Water and Toxins Enforceme	nt Act, 1986 (Proposition 6	5):			
Carcinogen:	No	No	No	No		
Reproductive Toxin:	No	No	No	No		
Other Regulations						
State Right To Know Laws:	NJ					
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	No	No	No		
DSL or NDSL Lists:	DSL	DSL	DSL	DSL		

# **SECTION 15: REGULATORY INFORMATION (Continued from Page 6)**

COMPONENTS: Cobalt Chloride

OSHA Target Organs: Eyes, Skin, Mucous

membranes & Lungs

**Carcinogenic Potential:** 

Regulated by OSHA:
Listed on NTP Report:
No
Listed by IARC:
IARC Group:
Group 2B
ACGIH Appendix A:
Yes (A3)
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

### SARA TITLE III

Section 302 & 303 (40 CFR 355):

Listed Substance:Not listedReportable Quantity:Not applicablePlanning Threshold:Not applicable

Section 311 & 312 (40 CFR 370):

Planning threshold: 10,000 pounds

Section 313 (40 CFR 372):

Listed Toxic Chemical: Yes (Cobalt

compounds) 10,000 pounds

Reporting Threshold: 10,000 pound

**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: NJ

# **Canadian Regulations**

**Product Information:** 

Controlled Product: Ye

WHMIS Hazard Symbols: Material Causing Other Toxic Effects

WHMIS Class & Division: D.2A; D.2B

Ingredient Information:

IDL Substance: Yes DSL or NDSL Lists: DSL

# **SECTION 16: OTHER INFORMATION**

EPA Registration number: Not applicable

Approved Product Uses: Used to improve soils and break down chemicals

### **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 Kleenup™ in a cool, dry, well-ventilated area away from incompatible materials and products. When making dilutions, always add this product to water, or aqueous solutions, with adequate mixing to ensure a uniform solution. Do not add strong alkali or caustics to this product, as that will liberate toxic 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 20, 2014

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