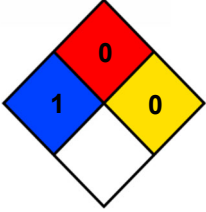




SAFETY DATA SHEET

Probiotic Solutions® CarbonX™ 201



HMIS	
HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0
PPE	A

SECTION 1: CHEMICAL PRODUCT & COMPANY IDENTIFICATION

PRODUCT IDENTIFIER:	Probiotic Solutions® CarbonX™ 201	Product# 360
GENERAL USE:	This product is used as a carbon source for Denitrification and Biological Phosphorus Removal	
PRODUCT DESCRIPTION:	A hazy brown liquid having a unique 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 hazy brown liquid having a unique odor. The liquid and mists may cause mild irritation to the eyes and skin.

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.

SECTION 3: COMPOSITION & INFORMATION ON INGREDIENTS

<u>COMPONENT</u>	<u>CAS #</u>	<u>OSHA HAZARD</u>	<u>WT %</u>	<u>ACGIH</u>		<u>OSHA</u>	
				<u>TLV_(TWA)</u>	<u>STEL</u>	<u>PEL_(TWA)</u>	<u>STEL</u>

Note: The ingredients in this product mixture are non-hazardous according to OSHA 29 CFR 1910.1200

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 swallowed, get medical attention 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 Determined		
GENERAL HAZARD:	This product is an aqueous solution of an organic acid, and other organic and inorganic plant nutrients. The Uniform Fire Code health hazard classification for this product is: Irritant . This product may produce mists that are mildly irritating to the skin, eyes and respiratory tract.		
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 carbon monoxide, carbon dioxide, zinc, manganese, iron and copper oxides, with trace or ultra-trace toxic oxide amounts, of potassium, phosphorus, nitrogen, sulfur, magnesium, calcium, boron, cobalt 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 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:	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. Avoid getting this product in eyes, on skin or on clothing. Wear recommended personnel protective equipment when handling this product. Do not breathe mists, vapors, fumes or aerosols. 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 the OSHA-PEL, ACGIH-TLV or levels that may cause irritation.

RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT

RESPIRATOR: Respiratory protection is not normally required. If use creates mists or aerosols, or if an ACGIH-TLV is exceeded, a NIOSH approved full facepiece or half mask air-purifying cartridge respirator equipped with an organic vapor cartridge and a dust / mist pre-filter 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 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 & EQUIPMENT: Wear a Neoprene, Nitrile, Butyl Rubber or Natural Rubber apron, or full protective clothing when handling this material. 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 Neoprene, Nitrile, Butyl Rubber 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:	hazy brown	Bulk Density (pounds/ft³):	Not applicable
Physical State:	Liquid	Vapor Pressure:	No data available
Odor:	Unique odor	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:	No data available / 38.0%
Molecular Weight:	Not applicable	% Volatile:	No data available
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:	1.20 – 1.30 @ 20° C.	pH (as is):	4.0 – 5.0
Density (pounds/gallon):	Approximately 10.4	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: Contact caustics & alkali, strong oxidizers, sulfides, sulfites, cyanides and chlorine releasers.

HAZARDOUS DECOMPOSITION PRODUCTS: When heated to dryness and decomposition, it emits toxic oxides of carbon, zinc, manganese, iron and copper, with trace or ultra-trace toxic oxide amounts, of potassium, phosphorus, nitrogen, sulfur, magnesium, calcium, boron, cobalt 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:	Note: The ingredients in this product mixture are non-hazardous according to OSHA 29 CFR 1910.1200
Eye Contact:	Not applicable
Skin Contact:	Not applicable
Oral Rat LD₅₀:	Not applicable
Dermal Rabbit LD₅₀:	Not applicable
Inhalation Rat LC₅₀:	Not applicable
Human Data:	Not applicable
Other Toxicological Data:	Not applicable
Carcinogenicity:	Not applicable
Teratogenicity:	Not applicable
Mutagenicity:	Not applicable
Synergistic Products:	Not applicable
Target Organs:	Not applicable
Medical Conditions Aggravated By Exposure:	Not applicable

SECTION 12: ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE:

This product is completely soluble in water and can 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-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: Not applicable	Subsidiary Label(s): Not applicable	
	Primary/Subsidiary Placards: Not applicable		
DOT Reportable Quantity (RQ):	No	RQ for Product: No	
Marine Pollutant:	No		
2012 North American Emergency Response Guidebook No.:	Not applicable		
TDG PROPER SHIPPING NAME:	NOT RESTRICTED		
	Hazard Class: Not applicable	UN Number: n/a	Packing Group: n/a
	Primary Label: Not applicable	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 applicable	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:

Note: The ingredients in this product mixture are non-hazardous according to OSHA 29 CFR 1910.1200

OSHA Target Organs:

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:	No
Reportable Quantity:	Not applicable
Characteristic:	Not applicable
RCRA Waste No.:	Not applicable

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: <u>N</u>	Sudden Release of Pressure: <u>N</u>	Reactive: <u>N</u>	Acute Health: <u>N</u>	Chronic Health: <u>N</u>
Planning threshold:	Not applicable				

Section 313 (40 CFR 372):

Listed Toxic Chemical:	Not listed
Reporting Threshold:	Not applicable

U.S. TSCA Status

Listed (40 CFR 710):	Not applicable
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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:	Not applicable
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Canadian Regulations

Product Information:

Controlled Product:	No
WHMIS Hazard Symbols:	Not applicable
WHMIS Class & Division:	Not applicable

Ingredient Information:

IDL Substance:	No
DSL or NDSL Lists:	Not applicable

SECTION 16: OTHER INFORMATION

EPA Registration number: Not applicable

Approved Product Uses: Used as a complete microbial nutritional program for soil and water remediation

Special Notes:

This product is not formulated to contain any material, which the State of California has found to cause cancer and/or birth defects or other reproductive harm.

Special Instructions:

When making solutions, always add Carbon X™ 201 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 liberates toxic Chlorine gas. Do not add this product to strong alkali or caustic materials and products, as this can liberate a lot of heat and toxic Ammonia gas.

SDS Revision Information: Revision Date: 9/03/2020

SDS Distributed by: Bio Huma Netics, Inc.

Prepared By:	Frank S. Pidgeon, Sr. EHSS Director
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Date Prepared:	May 25 th 2018
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