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Trade name:	Bio-C™
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SECTION 1: Identification / Identification of the dangerous chemical substance or mixture and the supplier or manufacturer

Product identifier: Bio-C™
Product Code Number: 90-1401, 90-1402, 90-1405
Recommended use: Used for septic systems and to treat tile, grout and drains. A powerful, bacterial enzyme concentrate.
Recommended restrictions: Uses other than as recommended above.

Manufacturer/Importer/Supplier/Distributor information:

Company Name: Vaportek Inc.
Company Address: W226 N6339 Village Drive
 Sussex, WI, 53089
 USA
Website: www.vaportek.com
info@vaportek.com
Company Telephone: 800.237.6367
 262.246.5060
 Chemtrec Primary Phone Numbers
Emergency phone number: Toll Free: 1-800-424-9300
 Local: +1-703-527-3887
 Vaportek CHEMTREC
 Customer Number (CNN): P1020146

SECTION 2: Hazard(s) identification

Classification of the chemical in accordance with the OSHA Hazard Communication Standard (2012) – Hazcom 2012, Hazardous Products Regulations (2015) (Canada) Workplace Hazardous Materials Information System (WHMIS 2015) and Mexican NMX-R-019-SCFI-2011 and NOM-018-STPS-2000:

Classification of the Substance or Mixture (USA, Canada)

Skin Sensitization Cat 1 H317 May cause an allergic skin reaction

Label Elements (USA, Canada):

Pictograms :



GHS07

Signal Word : WARNING
Hazard Phrases : H317 – May cause an allergic skin reaction
Precautionary Phrases : P261 – Avoid breathing mist or spray
 P272 - Contaminated work clothing must not be allowed out of the workplace
 P280 - Wear protective gloves
 P302+P352 - If on skin: Wash with plenty of water and soap
 P333+P313 - If skin irritation or rash occurs: Get medical advice/attention
 P363 - Wash contaminated clothing before reuse

P501 - Dispose of contents/container to a licensed waste disposal contractor or collection site.

Hazard(s) or Health and Physical Hazard(s) not otherwise Classified (HNOC): Not applicable.

Percentage of ingredient(s) of unknown acute toxicity:

11% of the mixture consists of ingredients of unknown acute toxicity (oral, dermal).
 38% of the mixture consists of ingredients of unknown acute toxicity (inhalation).

Classification of the Substance or Mixture (Mexico)

Skin Irritation Cat 3	H316	Causes mild skin irritation
Skin Sensitization Cat 1	H317	May cause an allergic skin reaction

Label Elements (Mexico):

Pictograms (GHS-MX)



GHS07

Signal Word (GHS-MX) : WARNING

Hazard Phrases (GHS-MX) : H316 – Causes mild skin irritation
 H317 – May cause an allergic skin reaction

Precautionary Phrases (GHS-MX) : P261 – Avoid breathing mist or spray
 P272 - Contaminated work clothing must not be allowed out of the workplace
 P280 - Wear protective gloves
 P302+P352 - If on skin: Wash with plenty of water and soap
 P333+P313 - If skin irritation or rash occurs: Get medical advice/attention
 P363 - Wash contaminated clothing before reuse
 P501 - Dispose of contents/container to a licensed waste disposal contractor or collection site.

SECTION 3: Composition/information on ingredients

Mixture:

Name	CAS Registry Number	Concentration (% weight)
Propylene glycol	57-55-6	27
Alcohols, C ₆₋₁₀ , ethoxylated propoxylated	68987-81-5	2
Cinnamic aldehyde	104-55-2	0.1
d-Limonene	5989-27-5	0.13

SECTION 4: First-aid Measures

Description of necessary measures:

Inhalation: Effects are unlikely following inhalation of this product. In the unlikely event of effects, remove person to fresh air and keep comfortable for breathing. Seek medical attention if symptoms occur.

Skin contact: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye contact: Rinse cautiously with water. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists: Get medical advice/attention.

Ingestion: If ingested, and if person is conscious and lucid, rinse mouth with water. Never give anything by mouth to an unconscious person. DO NOT induce vomiting. Drink water and contact a physician.

Most important symptoms/effects, acute and delayed: May cause skin sensitization which may result in redness, irritation and swelling. May cause mild skin irritation.

Indication of immediate medical attention and special treatment needed: No additional information available.

SECTION 5: Fire-fighting measures

Suitable extinguishing media: Product is not anticipated to support combustion. Use appropriate extinguishing media for surrounding materials.

Unsuitable extinguishing media: None known

Specific hazards arising from the chemical:

Not expected to be a fire/explosion hazard under normal conditions of use. Heat may build pressure and rupture closed containers. Thermal decomposition may generate: aldehydes, irritating vapours, carbon dioxide, carbon monoxide and unidentified organic compounds.

Special protective equipment and precautions for fire-fighters: Exercise caution when fighting any chemical fire. Wear complete protective clothing including self-contained breathing apparatus.

SECTION 6: Accidental release measures / Measures to be taken in case of accidental spill or accidental release

Personal precautions, protective equipment and emergency procedures: Wear appropriate Personal Protective Equipment (PPE) (See information provided in Section 8). Avoid inhalation of mists or sprays of product and avoid contact with eyes, skin and clothing.

Methods and material for containment and cleaning up: Cover spill with a non-combustible inert absorbent and place in an approved disposal container (See Section 13). In case of a large spill, ventilate the area and absorb with an inert absorbent. Avoid releases to sewers or watercourses. Wear appropriate PPE when cleaning up spilled material (See Section 8).

SECTION 7: Handling and Storage

Precautions for safe handling: Wear appropriate personal protective equipment (See Section 8). Avoid inhalation of mists or sprays of the product. Wash hands, forearms, face and clothing thoroughly after handling the product. Contaminated work clothing should not leave the workplace. Do not eat, drink or smoke while handling this product.

Conditions for safe storage, including any incompatibles: Keep in a cool, dry and well-ventilated area.

SECTION 8: Exposure controls/personal protection

Occupational exposure limits:

Propylene glycol			
ACGIH TLV® TWA	OSHA PEL	NIOSH REL	Mexico TWA
Not applicable	Not applicable	Not applicable	Not applicable

AIHA – WEEL: 10 mg/m³ (8hr TWA)

d-Limonene			
ACGIH TLV® TWA	OSHA PEL	NIOSH REL	Mexico TWA
Not applicable	Not applicable	Not applicable	Not applicable

AIHA – WEEL: 10 mg/m³ (8hr TWA)

Appropriate engineering controls: Use engineering controls to maintain airborne levels below applicable exposure limits and at the minimum level possible. Local ventilation is not normally required, but in case of uses that create excessive mists or sprays, local ventilation is recommended. Ventilation rates should be matched to conditions.

Individual protection measures, such as personal protective equipment:

Eye/face protection: In case of use or storage where excessive mists or sprays are formed, wear protective safety goggles to protect eyes from exposure to product.

Skin and Hand protection: Avoid skin contact. Wear suitable protective clothing and protective gloves.

Respiratory protection: If engineering controls do not keep airborne concentrations below acceptable exposure limits an approved respirator must be worn. A chemical cartridge respirator should be used if excessive mists or sprays are present. Seek guidance from your respiratory protection supplier or your health and safety expert.

Thermal hazards: Not applicable based on recommended uses.

General provisions: Minimize exposure to skin and avoid generation of mists or sprays. Ensure appropriate personal protective equipment is available in the workplace. Respect all appropriate legislation regarding health and safety in the workplace and follow all recommends from your health and safety committee.

SECTION 9: Physical and chemical properties

Appearance:	Translucent Reddish liquid
Odor/odour:	Mild odor of pine and eucalyptus.
Odor/odour threshold:	Not available
pH:	Not available
Melting point/freezing point:	Not available
Initial Boiling Point and boiling range:	>200°F
Flash point:	Not available
Evaporation rate:	Not available
Flammability (solid, gas):	Not applicable
Upper/lower flammability or explosive limits	
Flammability limit – lower (%):	Not applicable
Flammability limit – upper (%):	Not applicable
Explosive limit – lower (%):	Not applicable
Explosive limit – upper (%):	Not applicable
Vapor/Vapour pressure:	Not available
Vapor/Vapour density (air=1):	>1
Relative density (water = 1):	Not available
Solubility(ies):	completely miscible in water
Partition coefficient (n-octanol/water):	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity:	Not available

SECTION 10: Stability and Reactivity

Reactivity:	Stable under normal anticipated conditions of use, but may react with incompatible materials.
Chemical stability:	Stable under normal anticipated conditions of use.
Possibility of hazardous reactions:	Hazardous reactions are not anticipated.
Conditions to avoid:	Avoid contact with incompatible materials. No other known conditions to avoid.
Incompatible materials:	Strong acids and bases, reducing agents and oxidizing agents,
Hazardous decomposition products:	Decomposition may generate: irritating vapours, carbon dioxide, carbon monoxide and unidentified organic compounds.

SECTION 11: Toxicological information

Information on likely routes of exposure: Ingestion, inhalation, contact with skin and eyes.

Symptoms related to the physical, chemical, and toxicological characteristics: May cause skin sensitization which may result in redness, irritation and swelling. May cause mild skin irritation.

Delayed and immediate effects and chronic effects from short or long-term exposure:

Skin Irritation and Corrosion: Not anticipated to cause more than mild skin irritation based on information available on the product and the known components in the product. May cause dryness upon prolonged exposure.

Serious Eye Damage/ Eye Irritation: Not anticipated to cause classifiable eye irritation based on information available on the product and the known components of the product.

Respiratory Sensitization: Not anticipated to cause respiratory sensitization based on information available on the product and the known components of the product.

Skin Sensitization: Based upon information on a component(s) of this product, this product may cause skin sensitization upon repeated or prolonged exposure (Cinnamic aldehyde, d-Limonene).

Germ Cell Mutagenicity: Not anticipated to cause mutagenicity based on information available on the product and the known components of the product.

Carcinogenicity: Not anticipated to cause cancer based on information available on the product. None of the ingredients in this product is listed as a carcinogen by ACGIH, IARC or NTP.

Reproductive Toxicity: Not anticipated to cause reproductive toxicity (Fertility or effects on unborn child) based on information available on the product and the known components of the product.

Specific Target-Organ Toxicity – Single Exposure: Not anticipated to cause specific target organ toxicity following single exposure, based on information available on the product and the known components of the product.

Specific Target-Organ Toxicity – Repeated Exposure: Not anticipated to cause specific target organ toxicity following repeated or prolonged exposure, based on information available on the product and the known components of the product.

Aspiration Hazard: Not anticipated to be an aspiration hazard if swallowed.

Numerical measures of toxicity:

Propylene glycol (57-55-6)	
LD50 oral rat	14800 mg/kg
LD50 dermal rabbit	20800 mg/kg
LC50 inhalation rat	Not available

Alcohols, C6-10, ethoxylated propoxylated (68987-81-5)	
LD50 oral rat	2380-2745 mg/kg
LD50 dermal rabbit	>2000 mg/kg
LC50 inhalation rat	>50 mg/L/4H

Cinnamic aldehyde (104-55-2)	
LD50 oral rat	Not available
LD50 dermal rabbit	Not available
LC50 inhalation rat	Not available

d-Limonene (5989-27-5)	
LD50 oral rat	4400 mg/kg
LD50 dermal rabbit	>5000 mg/kg
LC50 inhalation rat	Not available

Acute Toxicity Estimate (ATE) of the product:

Acute Toxicity (oral) – >5000 mg/kg
 Acute Toxicity (dermal) – >5000 mg/kg
 Acute Toxicity (inhalation) – >50 mg/L/4H

Further information: Not available

SECTION 12: Ecological information

Ecotoxicity: Acute Ecotoxicity Data

Product data: Not available

Ingredient data:

Propylene glycol (57-55-6)	
LC ₅₀ (Fish – Fathead minnow) (<i>Pimephales promelas</i>)	34060 mg/L/96H
LC ₅₀ <i>Ceriodaphnia</i> sp.	18340 mg/L/48H
EC ₅₀ Green algae (<i>Selenastrum capricornutum</i>)	19000 mg/L/96H (Growth rate)
EC ₅₀ Green algae (<i>Selenastrum capricornutum</i>)	18000 mg/L/14D (Growth rate)

Alcohols, C6-10, ethoxylated propoxylated (68987-81-5)	
LC ₅₀ (Fish – Fathead minnow) (<i>Pimephales promelas</i>)	1-10 mg/L/96H
EC ₅₀ Aquatic invertebrates	1-10 mg/L/48H
EC50 Algae	1-10 mg/L/120H

Persistence and Degradability: No biodegradation data is available for this product; however, the components of this product are all anticipated to be at least inherently biodegradable.
Bioaccumulative Potential: Unknown.
Mobility in Soil: Not available
Other adverse effects: None known

SECTION 13: Disposal considerations / Information on the disposal of products

Disposal instructions:

Product: Dispose in accordance with applicable federal, state/provincial, and local regulations.
Contaminated packaging: Since emptied containers retain product residue, follow label warnings even after container is emptied.

SECTION 14: Transport Information

Land transport DOT (US-DOT):
 Not regulated
TDG (Transportation of Dangerous Goods) (Canada):
 Not regulated
IATA (International Air Transport Association):
 Not regulated
IMDG (International Maritime Dangerous Goods Code):
 Not regulated

SECTION 15: Regulatory Information

Canada:

Classification according to the Hazardous Products Regulations (WHMIS 2015): (See Section 2) This SDS complies with the Hazardous Products Regulations (WHMIS 2015).

Canadian Environmental Protection Act (CEPA) Domestic Substances List (DSL): One or more components of this product are not listed on the DSL.

Mexico:

Classification according to the NOM-R-019-SCFI-2011 harmonized system of classification and hazard communication of chemicals and NOM-018-STPS-2014, Harmonized System for the Identification and Communication of Hazards and Risks of Hazardous Chemicals in the Workplace: See section 2.

USA:

Classification according to the OSHA Hazard Communication Standard (HCS) 2012: See Section 2. This Safety Data Sheet complies with the OSHA Hazcom 2012 requirements.

TSCA Inventory: All applicable components of this product are listed on the TSCA Inventory or are exempt from listing on the TSCA Inventory.

Superfund or Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): There are no known substances in this product currently listed on CERCLA.

Emergency Planning and Community Right to Know Act (EPCRA) 302 (SARA 302): No reviewed components are listed.

SARA 313 – Toxic Release Inventory (TRI): There are no known substances in this product currently listed on the TRI.

California Proposition 65: This product contains a chemical(s) known to the State of California to cause cancer and birth defects or other reproductive harm.

New Jersey Right To Know (NJ-RTK): The following known components of this product are present on the NJ-RTK list: Propylene glycol (CAS# 57-55-6).

SECTION 16: Other Information / Other information on the preparation and revision of safety data sheets

Revision Date: January 4, 2017

Acronyms used in this SDS:

ACGIH	American Conference of Governmental Industrial Hygienists
AIHA	American Industrial Hygiene Association
EC50	Effective Concentration, 50%
GHS-CA/US/MX	Globally Harmonized System – Canada / United States / Mexico (as appropriate)
HMIS	Hazardous Materials Identification System
LC50	Lethal Concentration, 50%
LD50	Lethal Dose, 50%
HMIS	Hazardous Materials Identification System
IARC	International Agency for Research on Cancer
MSHA	Mine Safety and Health Administration (US)
NFPA	National Fire Protection Association (US)
NIOSH	National Institute for Occupational Safety and Health (US)
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
REL	Recommended Exposure Limit
SARA	Superfund Amendments and Reauthorization Act
STEL	Short-Term Exposure Limit

TLV
TWA
US DOT
WEEL

Threshold Limit Value
Time Weighted Average
United States Department of Transport
Workplace Environmental Exposure Levels

Disclaimer:

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