MATERIAL SAFETY DATA SHEET

SECTION I – PRODUCT AND COMPANY IDENTIFICATION

Product Name: BIO Solutions 210
Product Code:
Product Use: Grease trap control treatment

Manufacturer/Supplier: Enviro-Solutions Limited
Address: 2060 Fisher Dr.,
Peterborough, ON K9J 8N4
Telephone: (705) 745-3070

HMIS Hazard Rating

HEALTH	1	0 – Insignificant
FLAMMABILITY	0	1 – Slight
REACTIVITY	0	2 – Moderate
PERSONAL PROTECTION	B	3 – High 4 – Extreme

Emergency Phone: CANUTEC (613) 996-6666

SECTION II – INFORMATION ON INGREDIENTS

Ingredients	CAS#	WT%	ACGIH-TLV	LD_{50}	LC_{50}
Water	7732-18-5	60-100	Not applicable	14,500 mg/kg (Oral, Rat)	NA
Bacterial culture	Mixture	3-7	Not applicable	NA	NA
Ethoxylated alcohols	68131-39-5	1-5	Not applicable	>2,000 mg/kg (Oral, Rat)	NA
Lipase	NA	0.1-1	Not applicable	NA	NA
Propylene glycol	57-55-6	0.1-1	Not applicable	18,300 mg/kg (Oral, Rat)	NA
2-Bromo-2-nitro-1,3-propanediol	52-51-7	0.1-1	Not applicable	>307 mg/kg (Oral, Rat)	NA
Fragrance	Mixture	0.1-1	Not applicable	NA	NA
Xanthan gum	11138-66-2	0.1-1	Not applicable	>5,000 mg/kg (Oral, Rat)	NA
Alizarine Fast Blue	6408-78-2	0-1	Not applicable	>2,000 mg/kg (Oral, Rat)	NA

SECTION III – HAZARDS IDENTIFICATION

Route of Entry: Eye, skin contact, inhalation, ingestion.
Effects of Acute Exposure:
Eye Contact: May cause irritation.
Skin Contact: May cause irritation.
Inhalation: No significant effect or critical hazard.
Ingestion: No significant effect or critical hazard.
Effects of Chronic Exposure: See Section 11.

SECTION IV – FIRST AID MEASURES

Eye Contact: Flush with water for 15 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. Seek medical attention if irritation persists.
Skin Contact: Flush with water for 15 minutes. Seek medical attention if irritation develops.
Inhalation: Remove to fresh air and take deep, slow breaths. If not breathing, give artificial respiration. Seek medical attention if irritation persists.
Ingestion: Do not induce vomiting. Never give anything by mouth if victim is unconscious, is rapidly losing consciousness, or is convulsing. Rinse mouth with water, then drink one glass of water. Seek medical attention if symptoms persist.

SECTION V – FIRE FIGHTING MEASURES

Flammability: Not flammable **Flash Point:** (deg C, TCC): None
LEL: Not applicable **UEL:** Not applicable).
Auto-Ignition Temperature: None
Hazardous Combustion Products: Oxides of carbon.
Means of Extinction: Use an extinguishing agent that is appropriate for surrounding fire.
Special Fire Hazards: Firefighters should wear appropriate protective equipment and self-contained breathing apparatus with a full face operated in positive pressure mode.
Explosion Data – Sensitivity to Mechanical Impact: None.
Explosion Data – Sensitivity to Static Discharge: None.

SECTION VI – ACCIDENTAL RELEASE MEASURES

Personal precautions: Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective.
Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the authorities if the product generated an environmental pollution (sewers, inland waterways, ground or air)
Leak and spill procedure: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

SECTION VII – HANDLING AND STORAGE

Storage Requirements: KEEP OUT OF REACH OF CHILDREN. Store in a segregated and approved area. Keep the container hermetically closed until ready for use. Use a suitable container to avoid any contamination in the ambient conditions. Store in a cool, dry, well-ventilated area away from incompatible materials.

SECTION VIII – EXPOSURE CONTROL/PERSONAL PROTECTION

Gloves: Rubber, vinyl or latex.
Eye protection: Goggles.
Respiratory protection: Not normally required if good ventilation is maintained.
Other protective equipment: As required by employer code.
Engineering Controls: General ventilation normally adequate.

SECTION IX – PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Odor: Turquoise; Typical.		**Physical State:** Liquid
Boiling Point (°C): NE	**Freezing Point (°C):** NE	**% Volatile (Wt%):** NE
Specific Gravity (H_2O=1): 1.00		**pH (as supplied):** 8.0
Evaporation Rate (Water=1): NE		**Viscosity:** Viscous.
Coefficient of Water/Oil Distribution: NE		**Solubility in Water:** Soluble
Vapor Pressure: NA	**Vapor Density:** NA	**Odor Threshold:** NE

SECTION X – STABILITY AND REACTIVITY

Conditions for Chemical Instability: Stable.
Incompatibility Materials: Combustive material.
Conditions of reactivity: NA
Hazardous Decomposition Products: Oxides of carbon.

SECTION XI – TOXICOLOGICAL INFORMATION

LD_{50}: Not established for this product. **LC_{50}:** Not established for this product.
This product may cause irritation to the eyes or skin.
Conditions Aggravated by Exposure: None known.
Sensitization to Product: None known.
Carcinogenicity: No ingredients listed by IARC, OSHA, EU, ACGIH or NTP. Non-hazardous by WHMIS standards.
Teratogenicity, Mutagenicity, Reproductive Effects: NA.
Toxicologically Synergistic Products: NA.

SECTION XII – ECOLOGICAL INFORMATION

Biodegradability: Not established for this product.
Aquatic Acute Toxicity: Not established for this product.

SECTION XIII – DISPOSAL CONSIDERATIONS

The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Eliminate the surplus and the products nonwhich can be recycled via a licensed waste disposal contractor. The reject of this product, the solutions and all the by-products must obey permanently to the legislation on the protection of the environment and waste disposal, and to remain in conformity with the requirements of the local public authorities. Avoid the dispersion of leaks, like their flow and any contact with the ground, the waterways, the drains, and the sewers

SECTION XIV - TRANSPORTATION

Special Shipping Information: Keep from freezing.
T.D.G. Classification: Not regulated under TDG.
D.O.T. Classification: Not regulated under DOT.

SECTION XV – REGULATORY INFORMATION

Occupational Health and Safety Regulations:
WHMIS Class: D2B.
OSHA & WHMIS: MSDS prepared pursuant to the Hazard Communication Standard (CFR29 1910.1200) and Canadian WHMIS regulations (Controlled Products Regulations under the Hazardous Product Act).
Environmental Regulatory Lists:
SARA – Section 313 (Toxic Chemical Release Reporting) 40 CFR 372 – None of these ingredients are listed.
CERCLA – Section 102 (Reportable Quantity) 40 CFR 302 – None of these ingredients are listed.
RCRA 40CFR 261 (SUBPART D) – None of these ingredients are listed.
CLEAN WATER ACT – Section 311 (Reportable Quantity) 40 CFR 116 - None of these ingredients are listed.
CLEAN AIR ACT – Section 312 (List of Hazardous Air Pollutants) 40 CFR 63 (Subpart C) – None of these ingredients are listed.
National Pollutant Release Inventory – None of the ingredients are listed.
Toxic Substances Control Act (TSCA) – All the ingredients are registered on the Chemical Substance Inventory.
Canadian Domestic Substance List (DSL) – All the ingredients are registered on the DSL.

SECTION XVI – OTHER INFORMATION

Date: August 6, 2009
Prepared by: Technical Services Group **Telephone:** (705) 745-3070

NA: Not Available NE: Not Established

BIO-ENZYMATIC

ENVIRO Solutions™ 210

BIO-ACTIVE GREASE TRAP CONTROL & TREATMENT

A biological product specially formulated for its use in grease traps and lines. A perfect blend of microorganisms, nutrients and stimulants and surface-active agents, which removes and liquifies grease to accelerate the biodegradability process. Controls unfavorable odors; degrades the accumulation of grease and oils.

- **Is a highly concentrated, heavy duty grease trap product for high volume quick service restaurants, and institutional and food processing**
- **Common applications include treating kitchen grease traps, food processing grease traps, plant waste water, etc.**
- **Consists of a synergetic blend of highly specialized microorganisms. The microorganisms were selected based on each strains superior enzymatic activity against specific substrates (fats, oils, grease, proteins, starch and carbohydrates)**
- **Exhibits exceptional organic degradation performance in both aerobic and anaerobic environments**

Keeps grease traps functioning efficiently. Works in conjunction with indigenous organisms to develop thin, active biofilms that line the surfaces of pipes and traps. These highly active microbes continue to grow on the surfaces by degrading grease and organics found in line deposits and in the waste stream. New microbes produced by this growth continue to eliminate grease and organics in several ways. In addition to further developing this active biofilm, they may pass into the waste stream to colonize pipes downstream. Or they may grow in the waste stream itself where they continue to eliminate grease and organics. They activate the entire system for grease removal. Regular addition of microbrial products maintains a highly active system.

Grease traps are designed to collect grease; preventing its passage downstream. However, since microorganisms can survive in the grease trap environment, natural microbes are always present. Some of the grease and organics are broken down to feed these natural microbes. By replacing the naturally occurring strains with highly effective grease degrading strains, much larger quantities of deposited grease can be degraded.

DIRECTIONS:

It is recommended to pour dosage on a daily basis as its efficiency may be reduced due to daily wash water.

Grease Trap Size	Initial Dosage	Maintenance
From 50 - 200 gallons	500ml (20 oz)	350 to 500 ml/day (14 to 20 oz/day)
From 250 - 500 gallons	litre (1 qt)	500 to 650 ml/day (20 to 26 oz/day)

For a trap of more than 500 gallons, it is recommended to consult your Enviro-Solutions Representative.

SIZES:

4.0 L (1.058 U.S. gallons)
20 L (5.29 U.S. gallons)

HDPE

EcoLogo

Certified Drain and/or Grease Trap Additive CCD-113

Distributed By:

ENVIRO Solutions™

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Barre, VT 05641
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ISO 9001:2000 Registered

Modified - 2009/12/09

Enviro-Solutions ... Good Clean Products