Safety Data Sheet

Issue Date 04-Dec-2012

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Version 1.0

	1. IDENTIFICATION
Product Identifier Product Name	Banner Liquid Enzymes
Other Means of Identification Product Code	D00017/ D00195/ Y40207
Recommended Use of the Chemica	
Recommended Use	Bio-enzymatic digestant. For industrial use.
Details of the Supplier of the Safety Victoria Bay Products 255 Rte 1 & 9 Jersey City, NJ 07306	y Data Sheet
Emergency Telephone Number Company Phone Number Emergency Telephone (24 hr)	Phone: 1-800-226-3233 INFOTRAC 1-352-323-3500 (International) 1-800-535-5053 (North America)
	2. HAZARDS IDENTIFICATION
EMERG	ENCY OVERVIEW: Contains non-pathogenic bacterial spores.

Appearance White

Physical State Liquid

Odor Fresh

Classification

This chemical does not meet the hazardous criteria set forth by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). However, this Safety Data Sheet (SDS) contains valuable information critical to the safe handling and proper use of this product. This SDS should be retained and available for employees and other users of this product.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Water	7732-18-5	60-100
Alcohols, C9-11 ethoxylated	68439-46-3	1-5
Diethylene Glycol Monobutyl Ether	112-34-5	1-5
Sodium Xylene Sulfonate	1300-72-7	1-5

Contains 1-5% non-pathogenic bacterial spores.

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

First Aid Measures

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists: Get medical advice/attention.
Skin Contact	If skin irritation occurs, rinse affected area with water.
Inhalation	No known hazardous effects. If symptoms occur, remove to fresh air.
Ingestion	Drink plenty of water. If any discomfort persists, obtain medical attention.

Most Important Symptoms and Effects

Symptoms Prolonged contact may cause painful stinging or burning of eyes and lids, watering of eye, and irritation. Prolonged or repeated skin contact may cause irritation.

Indication of any Immediate Medical Attention and Special Treatment Needed

Notes to Physician

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Water spray (fog). Carbon dioxide (CO2). Dry chemical. Foam.

Unsuitable Extinguishing Media

Not determined.

Specific Hazards Arising from the Chemical

None known.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures		
Personal Precautions	Use personal protective equipment as required.	
Environmental Precautions	Avoid release to the environment.	
Methods and Material for Containn	nent and Cleaning Up	
Methods for Containment	Prevent further leakage or spillage if safe to do so.	
Methods for Clean-Up	Collect spillage. Collect in a clean, dry waste container for disposal. After cleaning, flush away traces with water.	
	7. HANDLING AND STORAGE	
Precautions for Safe Handling		
Advice on Safe Handling	Avoid contact with eyes. Observe good industrial hygiene practices.	
Conditions for Safe Storage, Inclue	ding Any Incompatibilities	
Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep from freezing.	
Incompatible Materials	None known.	
8. EX	(POSURE CONTROLS/PERSONAL PROTECTION	
Exposure Guidelines	No exposure limits noted for ingredient(s)	

Appropriate Engineering Controls

Engineering Controls Ventilation systems.

Individual Protection Measures, such as Personal Protective Equipment

Eye/Face Protection	No protective equipment is needed under normal use conditions.
Skin and Body Protection	No protective equipment is needed under normal use conditions.
Respiratory Protection	No protective equipment is needed under normal use conditions.
General Hygiene Considerations	Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State Appearance Color	Liquid Opaque White	Odor Odor Threshold	Fresh Not determined
<u>Property</u> pH	<u>Values</u> 7.0-7.5	Remarks • Method	
Melting Point/Freezing Point	~ 0 ℃ / ~32 ℉ ~ 100 ℃ / ~212 ℉		
Boiling Point/Boiling Range Flash Point	Not applicable	Tag Open Cup	
Evaporation Rate Flammability (Solid, Gas)	Not determined n/a-liquid		
Upper Flammability Limits Lower Flammability Limit	Not determined Not determined		
Vapor Pressure	Not determined Not determined		
Vapor Density Specific Gravity	1.01	0.05.00 (77.15)	
Water Solubility Solubility in other solvents	Completely soluble Not determined	@ 25 ℃ (77 ℉)	
Partition Coefficient Auto-ignition Temperature	Not determined Not determined		
Decomposition Temperature Kinematic Viscosity	Not determined Not determined		
Dynamic Viscosity	Not determined Not determined		
Explosive Properties Oxidizing Properties	Not determined		

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to Avoid

Keep out of reach of children. Keep from freezing.

Incompatible Materials

None known.

Hazardous Decomposition Products

When exposed to fire, produces normal products of combustion.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Product Information

Eye Contact	Avoid contact with eyes.
Skin Contact	Avoid contact with skin.
Inhalation	Avoid breathing vapors or mists.
Ingestion	Do not taste or swallow.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Alcohols, C9-11 ethoxylated 68439-46-3	= 1378 mg/kg(Rat)	> 2 g/kg (Rabbit)	-
Diethylene Glycol Monobutyl Ether 112-34-5	= 3384 mg/kg(Rat)	= 2700 mg/kg (Rabbit)	-
Sodium Xylene Sulfonate 1300-72-7	= 7200 mg/kg(Rat)	-	-

Information on Physical, Chemical and Toxicological Effects

Symptoms

Please see section 4 of this SDS for symptoms.

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-Term Exposure

Carcinogenicity

This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Numerical Measures of Toxicity

Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Diethylene Glycol Monobutyl Ether	100: 96 h Desmodesmus subspicatus mg/L EC50	1300: 96 h Lepomis macrochirus mg/L LC50	-	2850: 24 h Daphnia magna mg/L EC50 100: 48 h
112-34-5	Subspicatus mg/E E000	static		Daphnia magna mg/L EC50

Persistence/Degradability

Not determined

Bioaccumulation Not determined

Mobility

Not determined

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.		
	14. TRANSPORT INFORMATION	
<u>DOT</u>	Not regulated	
IATA	Not regulated	
IMDG_	Not regulated	
15. REGULATORY INFORMATION		

International Inventories

Canada – Domestic Substances List (DSL) TSCA (Toxic Substances Control Act) All ingredients are listed or exempt. All ingredients are listed or exempt.

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 311/312 Hazard Categories

Acute Health Hazard

Yes

SARA 313

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Diethylene Glycol Monobutyl Ether	112-34-5	1-5	1.0

US State Regulations

U.S. State Right-to-Know Regulations

The following ingredients appear on various state right to know lists and/or California's Proposition 65 List:

Chemical Name	State List	
Diethylene Glycol Monobutyl Ether 112-34-5	NJ & PA	

AZ- Arizona Ambient Air Quality Guidelines

CT- Connecticut Hazardous Air Pollutants

CA- California Director's List of Hazardous Substances

CAP65C- California Prop65 Carcinogen

FL- Florida Substances List

ID- Idaho Non-Carcinogen Toxic Air Pollutants

IL- Illinois Toxic Air Contaminate- Carcinogenic

MA- Massachusetts Right to Know List

MN- Minnesota Hazardous Substances List

NJ- New Jersey Right to Know List

PA- Pennsylvania Right to Know List

RI- Rhode Island Hazardous Substances List

16. OTHER INFORMATION

NFPA	Health Hazards	Flammability	Instability	Spe
HMIS	Not determined Health Hazards	Not determined Flammability	Not determined Physical Hazards	Not Per
	1	0	0	Not

Issue Date04-DecRevision Date:19-FebRevision NoteNew for

04-Dec-2012 19-Feb-2014 New format Version 1.0 Special Hazards Not determined Personal Protection Not determined

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Keep Out of Reach of Children. For Industrial and Institutional Use Only.

*Denotes changes from last version.

End of Safety Data Sheet