

Issue Date 04-Dec-2012

| | 1. IDENTIFICATION | | |
|---|---|--|--|
| Product Identifier | | | |
| Product Name | Banner | | |
| Other Means of Identification | | | |
| Product Code | 071200 | | |
| Recommended Use of the Chemical and Restrictions on Use | | | |
| Recommended Use | Bio-enzymatic digestant. For industrial use. | | |
| Details of the Supplier of the Safety | <u>/ Data Sheet</u> | | |
| Midlab, Inc. 140 Private Brand Way | | | |
| Athens, TN 37303 | | | |
| Emergency Telephone Number | | | |
| Company Phone Number Emergency Telephone (24 hr) | Phone: 1-423-337-3180 | | |
| | INFOTRAC 1-352-323-3500 (International) 1-800-535-5053 (North America) | | |
| | | | |

Revision Date: 19-Nov-2013

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Contains non-pathogenic bacterial spores.

Appearance White

Physical State Liquid

Odor Fresh

Version 1.0

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 Effe | ects |
| 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, Including 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. EXPOSURE 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 °C / ~32 °F | | |
| Boiling Point/Boiling Range Flash Point | ~ 100 °C / ~212 °F Not applicable | Tag Open Cup | |
| Evaporation Rate | Not determined | | |
| Flammability (Solid, Gas) Upper Flammability Limits | n/a-liquid Not determined | | |
| Lower Flammability Limit | Not determined | | |
| Vapor Pressure Vapor Density | Not determined Not determined | | |
| Specific Gravity | 1.01 | | |
| Water Solubility Solubility in other solvents | Completely soluble Not determined | @ 25 °C (77 °F) | |
| Partition Coefficient | Not determined | | |
| Auto-ignition Temperature Decomposition Temperature | Not determined Not determined | | |
| Kinematic Viscosity | Not determined | | |
| Dynamic Viscosity Explosive Properties | Not determined Not determined | | |
| 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 | 100: 96 h Desmodesmus | 1300: 96 h Lepomis | | 2850: 24 h Daphnia magna |
| Ether | subspicatus mg/L EC50 | macrochirus mg/L LC50 | - | mg/L EC50 100: 48 h |
| 112-34-5 | - | 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

DOT Not regulated IATA Not regulated IMDG Not regulated

15. REGULATORY INFORMATION

International Inventories

Not determined

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

CAP65- California Prop65

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 |
|-------|-----------------------|----------------|-------------------------|
| HMIS_ | Not determined | Not determined | Not determined |
| | Health Hazards | Flammability | Physical Hazards |
| | 1 | 0 | 0 |

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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