

Material Safety Data Sheet

Section 1. Product and Company Identification

Product Name: SUBTILEX NG **EPA Registration #** 71840-8
Product Code: MBL/MBI600
Effective Date: January, 19 2011

Manufacturer Information: Becker Underwood, Inc.
801 Dayton Avenue
Ames, Iowa 50010
Information Phone: (515) 232-5907
Emergency Phone: Chemtrec (800) 424-9300

Hazardous Material Information System III:

Health	1
Fire Hazard	1
Physical Hazard	0
Personal Protection	X

Section 2. Ingredients and Hazards Identification

Hazardous Components		Occupational Exposure Limits		
Component	CAS Number	OSHA PEL	ACGIH TLV	Weight Percent
<i>Bacillus subtilis</i>	Proprietary	NE	NE	Proprietary
Carrier	Proprietary	15 mg/m ³	15 mg/m ³	Proprietary
No reportable quantities of hazardous ingredients are present				
No reportable quantities of toxic chemical(s) subject to the reporting requirements of Section 313 of SARA Title III and of 40 CFR 372 are present				

Emergency Overview: May cause respiratory tract, eye, and skin irritation.

Potential Acute Health Effects:

- Eyes:* Short term harmful effects are not expected. However, irritation may develop causing itching and redness.
- Skin:* Short term harmful effects are not expected. However, mild skin irritation may develop causing itching and redness.
- Inhalation:* Exposure to dust may cause coughing or wheezing when inhaled. May provoke asthmatic response in persons with asthma who are sensitive to airway irritants.
- Ingestion:* Not an intended route of exposure. Ingestion of large quantities may be harmful.

Section 3. Composition/Information on Ingredients

The composition of this material is a trade secret and contains no other components or impurities which will influence the classification with regard to human and environmental risk assessment.

Section 4. First Aid Measures

- Eye Contact:** Immediately flush eyes with water for at least 15 minutes. Prolonged or repeated contact may result in mechanical irritation.
- Skin Contact:** Wash with soap and water. If irritation develops consult a physician. Remove and launder contaminated clothing before reuse.
- Inhalation:** Move to fresh air. Seek medical attention if irritation develops.
- Ingestion:** Seek medical attention. Get immediate medical attention. Unless advised otherwise, dilute with water or milk then induce vomiting.

Section 5. Fire Fighting Measures

- Flammability of Product:** Not a fire or explosion hazard when stored under normal conditions. Explosion is possible when product is finely dispersed in air.
- Fire Fighting Media:** Foam, alcohol foam, CO₂, dry chemical, water fog.
- Protective Clothing:** No special procedures required besides standard fire fighting procedures.

Section 6. Accidental Release Measures

- Clean-Up Procedures:** Vacuum or use wet clean-up techniques and place in properly labeled and closed container. Dispose of collected material according to federal, state/provincial and local environmental regulations.
- Spills and Leaks:** Contain the spill to prevent discharges to surface streams or storm sewers.

Section 7. Handling and Storage

- Handling:** Avoid breathing dust. General mechanical ventilation can be expected to effectively remove and prevent build up of any dust generated from handling this product in a closed environment. Protect eyes to prevent contact. Avoid prolonged or repeated exposure to skin.
- Storage:** Keep container in a dry place inaccessible to children and pets. Store between 0° to 40°C. Do not freeze. Keep containers sealed until ready for use.

Section 8. Exposure Control/Personal Protection

- Engineering controls:** General mechanical ventilation can be expected to effectively remove and prevent build up of any dust generated from handling this product in a closed environment.
- Personal Protection:**
- Eyes:* Wear safety glasses. Have an eye wash station available.
 - Body:* To prevent skin contact wear coveralls, apron, boots, or lab coat.
 - Hands:* Avoid skin contact by using gloves.
 - Respiratory:* Mixers/loaders and applicators must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.
- Other:** Open wounds or skin surface disruptions should be covered with a chemical resistant patch to minimize absorption risks. Clean clothing should be worn daily to avoid possible long-term build up of the product leading to chronic overexposure.

Section 9. Physical and Chemical Properties

Odor	Musty odor	Vapor Density	NA
Color	Beige/white	Evaporation Rate	NA
Physical state	Powder	Specific Gravity (H₂O = 1)	NA
pH	NA	Solubility	Water soluble
Melting/Freezing Point	NA		

Section 10. Stability and Reactivity

Chemical Stability:	This material is chemically stable under normal storage and handling conditions.
Hazardous Decomposition:	When involved in a fire, burning may evolve noxious fumes which may include carbon monoxide, carbon dioxide, nitrous oxides, acetic acid, or other toxic compounds depending on the chemical composition and combustion conditions.
Hazardous Polymerization:	Is not known to occur.
Incompatibility (Materials to Avoid):	Long term storage in direct contact with reactive metals such as aluminum, zinc, copper, nickel, magnesium, etc. Other materials to avoid include strong oxidizing agents.
Conditions to Avoid:	High humidity. Extremes in temperature. Microorganisms denature at >50°C

Section 11. Toxicological Information

Chronic Toxicity:	None known
Mutagenic Effects:	None known
Teratogenic Effects:	None known
Developmental Toxicity:	None known
Acute Effects on Humans:	May cause skin, eye, and respiratory irritation.
Sensitization:	Repeated or prolonged exposure to the substance at concentration above the exposure limits may cause respiratory tract and lung sensitization.
Carcinogenic Effects:	This material is not known to cause cancer in animals or humans.
Existing Medical Conditions Aggravated By Exposure:	May provoke asthmatic response in persons with asthma who are sensitive to airway irritants.

Section 12. Ecological Information

Ecotoxicity:	No data available, however the material is not expected to have any deleterious toxic effect.
Environmental Fate:	No data available regarding the environmental fate or biodegradation.

Section 13. Disposal Considerations

EPA Waste Number:	Non-hazardous waste
Treatment:	Dispose of according to all federal, state/provincial and local environmental regulations.

Section 14. Transport Information

D.O.T. Classification: Not regulated
IMO/IMDG Classification: Not regulated
IATA Classification: Not regulated

Section 15. Regulatory Information

Hazardous Material Information System III:

Health	1
Fire Hazard	1
Physical Hazard	0
Personal Protection	X

US Federal Regulations:

Product Information: This product is not considered hazardous.

SARA 311/312:

Acute: No
Chronic: No
Fire: No
Pressure: No
Reactive: No

SARA 313: No reportable quantities of toxic chemical(s) subject to the reporting requirements of Section 313 of SARA Title III and of 40 CFR 372 are present.

Regulatory Listings:

United States (TSCA): Listed

Section 16. Other Information

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