

SECTION 1: IDENTIFICATION OF SUBSTANCE / PREPATION AND COMPANY / UNDERTAKING

Product Name: BioWake for Soybeans

SDS number: 741

Product Use: Microbial Inoculant and Seed Lubricant

Supplier Address: AMVAC Chemical Corporation
4695 MacArthur Court, Suite 1200
Newport Beach, CA 92660 USA

Telephone: 949-260-1200
Product Use: 888-462-6822

Fax: 949-260-6270

Website: www.amvac.com

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Emergency Numbers: Medical: 888-681-4261
CHEMTREC: 800-424-9300 (outside the US +1-703-527-3887)

SECTION 2: HAZARDS IDENTIFICATION

Hazard Classification: Combustible Dust

GHS Label Elements: Warning

Hazard Statement (GHS): May form combustible dust concentrations in air

Hazards Not Otherwise Classified: Direct contact with skin or eyes may cause slight irritation in some individuals. Inhalation of dust may cause respiratory tract irritation in some individuals.

Percentage of Ingredients with Unknown Toxicity: None

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	CAS Number	Percent
<i>Methylobacterium hispanicum</i> strain NL2	Not applicable	1-5%
Proteins, soy	9010-10-0	76-78%
Mixture of inert ingredients	Not applicable to mixtures	17-23%

SECTION 4: FIRST AID MEASURES

General:	Remove from source of exposure. If irritation or other signs of toxicity occur, seek medical attention.
Eyes:	Hold eye open and rinse slowly and gently with plenty of water for at least 15 minutes. If present, remove contact lenses and continue rinsing eye.
Skin:	Remove contaminated clothing. Thoroughly wash skin with plenty of soap and water.
Inhalation:	Move person to fresh air. If person is not breathing, call an ambulance, then give artificial respiration.
Ingestion:	Call a doctor immediately if a large amount is swallowed. Have person sip a glass of water if able to swallow. Do not give anything by mouth to an unconscious person.

Most Important Symptoms, Acute and Delayed:

Eyes:	May cause eye irritation. Symptoms may include discomfort or pain, excess blinking, and tear production, with possible redness and swelling.
Skin:	May cause skin irritation. Repeated exposure may cause skin dryness or cracking.
Inhalation:	May cause irritation to the respiratory tract.
Ingestion:	May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting, and diarrhea.

SECTION 5: FIRE FIGHTING MEASURES

General:	Use methods and protective gear that are appropriate for the conditions and size of the fire.
Extinguishing Media:	Foam. Dry powder. Water spray. Carbon dioxide (CO ₂). Unsuitable extinguishing media: None known.
Special Equipment:	Self-contained breathing apparatus and full protective gear according to the conditions and size of the fire.
Fire Hazard:	Combustible dust. Products of combustion may include and are not limited to oxides of carbon.
Explosion Hazard:	Airborne dust in sufficient concentrations when confined and exposed to a significant ignition source can explode.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Wear suitable protective clothing such as long-sleeved shirt, pants, waterproof gloves, and shoes with socks.
Methods for Clean up:	Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Use only non-sparking tools. Remove all sources of ignition. Avoid generating dust during clean up; provide ventilation. Carefully mop or sweep up spill and place in container for disposal. Rinse area with water.
Environmental Precautions:	Prevent entry to sewers and public waters.
Containment Methods:	Contain spill, then place in a suitable container. Minimize dust generation. Do not flush to sewer or allow to enter waterways. Use appropriate personal protective equipment (PPE).

Section 6 Notes: Refer to section 8 for personal protection and section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling:	Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. Avoid generating and breathing dust. Avoid contact with skin and eyes. Do not swallow. Use only in well ventilated areas. Handle and open container with care. When using do not eat, drink, or smoke. Good housekeeping is important to prevent accumulation of dust. The use of compressed air for cleaning clothing, equipment, etc., is not recommended. Handling this product may result in electrostatic accumulation. Use proper grounding procedures.
Hygiene measures:	Wash contaminated clothing before reuse. Always wash hands after handling the product.
Storage Conditions:	Keep out of the reach of children. Keep container tightly closed. Keep away from sources of ignition. Store in dust-tight, dry, labelled containers. Avoid any dust buildup by frequent cleaning and suitable construction of the storage area. Do not contaminate other pesticides, fertilizers, water, or feed by storage or disposal.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

General:	Protective clothing should be selected according to the conditions likely to be encountered in the workplace. Applicators should follow label instructions. No exposure limits have been established.
Engineering Controls:	Ensure good ventilation of the workstation. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is not leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.
Environmental exposure controls:	Avoid release to the environment.
Personal Protective Equipment (PPE):	
Respiratory:	In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If dusty conditions exist, use a dust-filtering face mask or a NIOSH approved respirator with any N, R, P or HE filter for biological products
Eyes and Face:	Safety glasses or goggles are recommended when using product.
Hands / Skin:	Gloves made from chemically resistant material such as neoprene, vinyl, rubber, or nitrile.
Other clothing:	Wear suitable protective clothing such as long-sleeved shirt, pants, and shoes with socks.
Hygienic Practices:	Wash hands and exposed skin before eating, drinking, smoking, or using the toilet.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Solid
Appearance	Powder
Color	Off-white to slightly pink
Odor	Slightly earthy, sweet
pH	6.3-7.5 (at 1.00g/L)
Melting point	No data available
Freezing point	No data available
Boiling point	No data available
Flash point	No data available
Flammability	Combustible dust
Evaporation rate	No data available
Density	0.42 ± 0.05 g/ml
Solubility	Dispersible in water
Partition coefficient n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive limits	No data available
Explosive properties	No data available
Oxidizing properties	No data available

SECTION 10: STABILITY AND REACTIVITY

Reactivity:	No dangerous reactions known under normal conditions of use.
Chemical Stability:	Stable under normal conditions. May form combustible dust concentrations in air.
Possibility of hazardous reaction:	No dangerous reactions known under normal conditions of use.
Conditions to avoid:	Heat. Incompatible materials. Avoid dust formation. Sources of ignition.
Incompatible materials:	Oxidizing agents.
Hazardous decomposition products:	May include and are not limited to oxides of carbon.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity (oral)	Not classified
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified
Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Not classified
Respiratory or skin sensitization	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
STOT-single exposure	Not classified
STOT-repeated exposure	Not classified
Aspiration hazard	Not classified
Symptoms after inhalation	May cause irritation to the respiratory tract.
Symptoms after skin contact	May cause skin irritation. Repeated exposure may cause skin dryness or cracking.
Symptoms after eye contact	May cause eye irritation. Symptoms may include discomfort or pain, excess blinking, tear production, and possible redness and swelling.
Symptoms after ingestion	May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Other information	Likely routes of exposure: ingestion, inhalation, skin, and eye.

Section 11 Notes: None of the components of this product are listed as carcinogenic by NTP, IARC, or OSHA.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity:	May cause long-term adverse effects in the aquatic environment.
Persistence and degradability:	Not established.
Bioaccumulative potential:	Bioaccumulation unlikely
Mobility in soil:	No additional information available
Other adverse effects:	No other effects known.

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal method:	Open dumping or burning of this material or its packaging is prohibited. If spilled material cannot be disposed of by use according to label instructions, <u>one</u> acceptable method of disposal is to incinerate in accordance with local, regional, and national environmental regulations.
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Empty container: Completely empty package into application equipment, rinse with water and add rinsate to application equipment. Dispose of empty package in accordance with applicable environmental regulations.

Section 13 Notes: Regulatory requirements are subject to change and acceptable methods of disposal can vary by location. The appropriate agencies should be contacted for advisement prior to disposal.

SECTION 14: TRANSPORT INFORMATION

Land:	ADR/RID Class	Not controlled under ADR (Europe)
Water:	IMDG Class	Not controlled under IMDG
Air:	IATA-DGR Class:	Not controlled under IATA
Other:	US DOT Freight Classification	Not regulated Not regulated

SECTION 15: REGULATORY INFORMATION

Federal Regulations: All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

International Regulations: No additional information available.

US State Regulations: California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm.

SECTION 16: OTHER INFORMATION

Revision Date: 11-November-2022

Other Information: Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

DISCLAIMER:

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