

Bacillus Licheniformis - MSDS

MATERIAL SAFETY DATA SHEET

SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier:

Product name: Bacillus Licheniformis
Product Number: PRO-A2
Brand: Pangoo
CAS-No.: 68308-36-1

Name of supplier, address and emergency telephone number:

Company : Pangoo Biotech Hebei Co., Ltd.
Add: Cangzhou, Hebei, China
Emergency telephone number: +86-317-8585021

Product use: As feed additive for animals

Date of MSDS preparation: 11/21/2018

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

Not WHMIS controlled.

SECTION 3 HAZARDS IDENTIFICATION

Emergency overview

KEEP OUT OF REACH OF CHILDREN.

Potential sensitizer.

Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts/mists/vapours.

Wash thoroughly after handling.

Potential health effects**Acute toxicity:**

Virtually nontoxic after a single ingestion. Virtually nontoxic by inhalation. Virtually nontoxic after a single skin contact.

Irritation / corrosion:

Not irritating to the skin. Not irritating to the eyes.

Sensitization:

There is no evidence of a skin-sensitizing potential.

Chronic toxicity:

Carcinogenicity: The product has not been tested. The statement has been derived from the properties of the individual components. The results of various animal studies gave no indication of a carcinogenic effect.

Repeated dose toxicity: The product has not been tested. The statement has been derived from the properties of the individual components. No substance-specific organotoxicity was observed after repeated administration to animals.

Reproductive toxicity: The product has not been tested. The statement has been derived from the properties of the individual components. The results of animal studies gave no indication of a fertility impairing effect.

Teratogenicity: The product has not been tested. The statement has been derived from the properties of the individual components. Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.

Genotoxicity: The product has not been tested. The statement has been derived from the properties of the individual components. Mutagenicity tests revealed no genotoxic potential.

Signs and symptoms of overexposure:

No significant reaction of the human body to the product known.

Potential environmental effects

Aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms.

Degradation / environmental fate:

The product has not been tested. The statement has been derived from the properties of the individual components. Colourants are by their nature very stable and are therefore not readily biodegradable under conditions prevailing in surface water or in effluent treatment plants.

Bioaccumulation / bioconcentration:

The product has not been tested.

SECTION 4 FIRST AID MEASURES

Inhalation:	Keep patient calm, remove to fresh air, seek medical attention.
Eye contact:	Wash affected eyes for at least 15 minutes under running water with eyelids held open.
Skin Contact:	Wash thoroughly with soap and water.
If swallowed:	Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.
General advice:	Remove contaminated clothing.

SECTION 5 FIRE FIGHTING MEASURES

Suitable extinguishing media:

Water spray, dry powder, foam, carbon dioxide

Hazards during fire-fighting:

Carbon monoxide, carbon dioxide, nitrogen oxides

The substances/groups of substances mentioned can be released in case of fire.

Protective equipment for fire-fighting:

Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:

Keep containers cool by spraying with water if exposed to fire. In case of fire and/or explosion do not breathe fumes. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Flammability:	N/A
Flash point:	> 100 °C
Autoignition:	Based on the water content the product does not ignite.
Lower explosion limit:	As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.
Upper explosion limit:	As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions:

Do not breathe vapour/spray. Use personal protective clothing. Avoid contact with the skin, eyes and clothing.

Environmental precautions:

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater.

Cleanup:

Dispose of absorbed material in accordance with regulations. Collect waste in suitable containers, which can be labeled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. For small amounts: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr). For large amounts: Dike spillage. Pump off product.

 SECTION 7 HANDLING AND STORAGE

Handling:**General advice:**

No special measures necessary if stored and handled correctly. Ensure thorough ventilation of stores and work areas. When using do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift.

Protection against fire and explosion:

No special precautions necessary. The substance/product is non-combustible. Product is not explosive.

Storage:

Keep away from heat. Protect from direct sunlight.

 SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Users of a pesticidal product should refer to the product label for personal protective equipment requirements.

Advice on system design:

Whenever possible, engineering controls should be used to minimize the need for personal protective equipment.

Personal protective equipment**Respiratory protection:**

Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) TC23C Chemical/Mechanical type filter system to remove a combination of particles, gas and vapours. For situations where the airborne concentrations may exceed the level for which an air purifying respirator is effective, or where the levels are unknown or Immediately Dangerous to Life or Health (IDLH), use NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

Eye protection:

Safety glasses with side-shields. Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures:

Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is recommended. Store work clothing separately. Keep away from food, drink and animal feeding stuffs.

 SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Uniform color powder, no gone mouldy, no caking and no peculiar smell.
Odor:	Light fermented aroma.
Taste:	N/A
Molecular Weight:	N/A
Color:	Beige
pH:	approx. 6 - 8(20 °C)
Boiling Point:	approx. 100 °C Information applies to the solvent.

Melting Point:	approx. 0 °C Information applies to the solvent.
Critical Temperature:	N/A
Specific Gravity:	N/A
Vapor Pressure:	approx. 23.4 hPa (20 °C) Information applies to the solvent.
Vapor Density:	Heavier than air.
Density:	approx. 1.16 g/cm ³ (20 °C)
Partitioning coefficient n- octanol/water (log Pow):	N/A
Water/Oil Dist. Coeff.:	N/A
Ionicity (in Water):	N/A
Dispersion Properties:	N/A
Solubility:	Soluble

 SECTION 10 STABILITY AND REACTIVITY

Conditions to avoid:	See MSDS section 7 - Handling and storage.
Substances to avoid:	Strong acids, strong bases, strong oxidizing agents
Hazardous reactions:	No hazardous reactions if stored and handled as prescribed/indicated.
Decomposition products:	Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.
Oxidizing properties:	Based on its structural properties the product is not classified as oxidizing.

 SECTION 11 TOXICOLOGICAL INFORMATION

Other Information:	Misuse can be harmful to health.
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 SECTION 12 ECOLOGICAL INFORMATION

Ecotoxicity:	N/A
Aquatic invertebrates:	N/A
Aquatic plants:	Toxicity to aquatic plants: N/A
Bioaccumulation:	Significant accumulation in organisms is not to be expected.
Other adverse effects:	Do not discharge product into the environment without control.

 SECTION 13 DISPOSAL CONSIDERATIONS

Waste disposal of substance:

Dispose of contents/container in accordance with local/regional/national/international regulations.

Container disposal:

Rinse the container or liner as needed for disposal. Add rinsate to spray tank. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers. Consult the product label for additional details.

 SECTION 14 TRANSPORT INFORMATION

Land transport TDG	Not classified as a dangerous good under transport regulations
Sea transport IMDG	Not classified as a dangerous good under transport regulations
Air transport IATA/ICAO	Not classified as a dangerous good under transport regulations

SECTION 15

REGULATORY INFORMATION

Federal Regulations

Registration status:

Chemical DSL, CA blocked / not listed

Crop Protection DSL, CA released / exempt

WHMIS does not apply to this product.

THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CPR AND THE MSDS CONTAINS ALL THE INFORMATION REQUIRED BY THE CPR.

SECTION 16

OTHER INFORMATION

"IMO" : not dangerous for sea transport

Disclaimer

Additional references can be taken from the label or the product description. The information given here is correct to the best of our knowledge at the time of writing this sheet. No responsibility can be taken for improper use or handling of the product.