

SAFETY DATA SHEET**1. IDENTIFICATION OF THE SUBSTANCE/ PREPARATION AND OF THE COMPANY/ UNDERTAKING****Product Identifier****Product Name:** MILDOWN**Other means of identification**

Common Name: Mildown
Microorganism: *Bacillus subtilis* 2% A.S.
Colour Index Generic Name: NA
Colour Index No: NA
C. A. S. No: NA
Product Categories: Bio-fungicide

Recommended use of the product and restrictions on use

Sale and Use Restrictions: Not Applicable
Recommended Use: Agricultural professionals
Uses advised against: Consumer use

Details of supplier of the safety data sheet**Supplier Address**

IPL Biologicals Limited
M2K Corporate Park, Sector 51, Gurugram, Haryana – 122003, India
Telephone: +91-124-4525001-4525099

2. HAZARDS IDENTIFICATION

Non hazardous

3. COMPOSITION/INFORMATION ON INGREDIENTS

This material is an agriculture Product, Bio-fungicide which contain microbes, i.e., non-explosive and non-hazardous. It contains Bacterial cell mass and fermentation solids in water based formulation.

S.no	Components	Percentage composition (%w/w)
01	<i>Bacillus subtilis</i> (Active Ingredients) Population density (CFU 2 X 10 ⁸ /ml)	1-2 %
2	Starch	1%
3	Glycerol	1%
4	Distilled Water (carrier)	Q.S.
	Total	100 %

4. FIRST AID MEASURES**First aid measures**

Skin contact: Wash with plenty of soap and water. Remove contaminated clothing. Wash contaminated clothing before reuse.
Inhalation: Move to fresh air.

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Eye contact:	Flush eye(s) with plenty of water. Remove contact lenses, if present and easy to do rinsing. Get medical aid immediately
Ingestion:	If swallowed, rinse mouth with water. Move to fresh air. Keep at rest position comfortable for breathing. Do not induce vomiting unless directed to do so by a physician. Get medical advice immediately if any symptom occurs.

5. FIRE-FIGHTING MEASURES

Flammable Limits:	Non-combustible and non-flammable
Extinguishing media:	Not Applicable
Special Protective Equipment:	Not required

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Use personal protective equipment for safety (See section 8) Wear gloves and face mask otherwise
Environmental Precautions:	Prevent further leakage or spoilage. Clean up spills immediately with disinfectants.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling:	The whole content of the pack should be used in one time. Wash thoroughly after handling. Remove contaminated clothing and wash before re use. Avoid contact with eyes, skin & clothing. Avoid ingestion. Discard used container and bury them away from habitation where there is no underground water sources.
Storage:	Protect from direct sunlight. Protect from physical damage. Keep containers tightly closed in a cool, dry and well ventilated place. The product should be stored below 40°C. Store separately from chemical pesticides.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Exposure guidelines:	This product, as supplied, does not contain any hazardous materials with occupational exposure limits.
Appropriate Control:	Ensure adequate ventilation and water supply for cleaning purpose.

Individual protection measures, such as personal protective equipment

Eye/face protection:	Wear safety glasses/goggles.
Skin and body protection:	Wear normal work clothing. Use hand gloves.
Respiratory protection:	Ensure adequate ventilation.
General Hygiene Considerations:	Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Keep away from food, drink and animal feeding stuffs. Avoid contact with eyes, skin, and clothing. Use personal protective equipment as required. Wash face, hands and any exposed skin thoroughly after handling. Take off contaminated clothing and wash it before reuse.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Aqueous solution
Color	Off white
Odour	Bacterial odour

<u>Property</u>	<u>Values</u>
pH	7.5 to 8.5
Melting point/freezing point	< -3 °C / 27 °F
Boiling point/boiling range	>= 100 °C / 212 °F
Flash Point	Non-combustible and non-flammable
Flammable Limits	Non flammable
Evaporation rate	No Data available
Vapor pressure	No Data available
Vapor density	No Data available
Specific Gravity	No Data available
Water solubility	Soluble in water
Soluble in other solvents	No Data available
Partition coefficient	No Data available
Auto ignition temperature	Non-combustible and non-flammable
Decomposition temperature	No Data available
Kinematic viscosity	No Data available
Dynamic viscosity	No Data available
Explosive properties	Non-explosive
Oxidizing properties	No Data available

Other informations

Softening point	No Data available
Molecular weight	No Data available
VOC Content (%)	No Data available
Density	No Data available
Bulk Density	Not Applicable

Technical characteristics of the product

Wettability	No Data available
Formation of persistent foam	No Data available
Suspension behavior, spontaneity and stability of the dispersion	No Data available
Degree of dissolution and stability of dilution	No Data available
Particle size distribution	No Data available
Emulsification faculty and emulsion stability	No Data available
Drainage, discharge and dust	No Data available
Processing	No Data available
Physical and chemical compatibility with other products	No Data available
Adhesion and distribution on seeds	No Data available
Corrosive power	Non corrosive

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10. STABILITY AND REACTIVITY

Stability and Reactivity	Stable under normal temperature and pressure
Conditions to Avoid	Keep away from direct sunlight
Hazardous reactions	None
Hazardous Decomposition Products	None

11. TOXICOLOGICAL INFORMATION

Product information	Non-toxic and non-virulent
Acute Oral Toxicity (Animal: Mice & Rat)	Non-toxic and non-virulent @ $>5 \times 10^8$ and 1×10^9 CFU/ml
Acute Pulmonary Toxicity (Rats)	Non-toxic and non-virulent @ $>5 \times 10^8$ CFU/ml
Skin Toxicity (Dermal) (Rabbit)	Non-toxic and non-virulent @ $>2 \times 10^{10}$ CFU/ml
Eyes Irritation (Rabbit)	Non-irritant
Skin Irritation (Rabbit)	Non Irritant
Inhalation toxicity	No data available
Carcinogenicity	No data available
Skin sensitization	No data available
Exposure data	No data available

12. ECOLOGICAL INFORMATION

Eco-toxicity	Product being a microbial-based product, isolated from soil micro flora is bio decomposable and non-toxic to aquatic and other beneficial micro flora.
Persistence and degradability	Non-persistent and biodegradable
Bioaccumulation	No
Mobility	Soluble in water

13. DISPOSAL CONSIDERATION**Waste treatment methods**

Disposal of waste	Dispose of in accordance with federal, state and local regulation.
Contaminated packing	Do not reuse container. Dispose of in accordance with federal, state and local regulation.

14. TRANSPORT INFORMATION

Transportation	Not classified as Dangerous for transport. Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2009 - IMDG 2008 - ICAO/IATA 2011).
Marine Pollutant	Not classified as Marine pollutant

15. REGULATORY INFORMATION**Safety, health and environmental regulations/legislation specific for the substance or mixture****Organic Materials Review Institute (OMRI) Listed**

This product is OMRI listed. It may be used in certified organic production or food processing and handling according to the USDA National Organic Programme Rule.

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IPL BIOLOGICALS LIMITED

MILDOWN INDOCERT

Revision Date: 01-06-2020

This product has been certified under National Standards for Organic Production for use in Organic Agriculture.

IMO, India

This product has been certified to be used in organic crop production in accordance to the requirement of the National Programme for Organic Production (India).

Chemical safety assessment

Not Classified as Dangerous for Supply / use. Not Classified as Dangerous for the Environment.

16. OTHER INFORMATION

The informations provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of publication. These informations are intended to describe the product from the point of view of the safety requirements. No warranty is implied with respect to the quality or the specification of the product. This relates only to the specific material designed and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Prepared by
Revision Date

IPL Biologicals Limited
01.06.2020