

SUBTILEX™

Biological Fungicide

FOR FORMULATING INTO REGISTERED
END-USE PRODUCTS AND FOR USE AS A
SEED TREATMENT, IN-FURROW
APPLICATION OR INCORPORATION INTO
PEAT MOSS OR GROWING MEDIA

ACTIVE INGREDIENT:

Bacillus subtilis, MBI 600 (not less than 5.5 X
10¹⁰ viable spores per gram).....2.75%

INERT INGREDIENTS:97.25%

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

See Additional Precautionary Statements on
Side (Back) Panel

EPA Reg. No. 71840-1
EPA Est. No.

U.S. Patent No. 5,061,495
U.S. Patent No. 5,344,647
Canada Patent No. 1,324,099

Another quality biological product from:
The MicroBio Group Ltd.
A Becker Underwood Company
801 Dayton Avenue
PO Box 667
Ames, IA 50010

Tel. (515) 232 5967

Net Contents: _____ Batch Code: _____

SUBTILEX is a Reg. TM of The MicroBio Group Ltd.
Bacillus subtilis, MBI 600 strain is a product of MicroBio Ltd.,
England

FIRST AID

If on skin or clothing:	- Take off contaminated clothing. - Rinse skin immediately with plenty of water for 15 – 20 minutes. - Call a poison control center or doctor for treatment advice.
If in eyes:	- Hold eye open and rinse slowly and gently with water for 15 – 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. - Call a poison control center or doctor for treatment advice.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION: Causes skin irritation. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling.

Personal Protective Equipment (PPE):

Applicators and other handlers must wear long-sleeved shirt and long pants, waterproof gloves and shoes plus socks. As a general precaution when exposed to concentrations of living microbial products such as this, all mixers / loaders and applicators must wear a dust / mist filtering respirator meeting NIOSH standards of at least N-95, R-95 or P-95. Follow manufacturer's instructions for cleaning / maintaining PPE. Keep and wash PPE separately from other laundry.

User Safety Requirements:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove PPE immediately after handling this product. If gloves are worn, wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards:

For Reformulation Use: Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or public water unless this product is specifically identified and addressed in a NPDES permit. Do not discharge effluent containing this product to sewer systems without previously

notifying the sewage treatment authority. For guidance, contact your state water Board or Regional Office of the EPA.

For Seed Treatment: Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater. Do not apply this product while bees are actively visiting the area.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions for exceptions pertaining to the statements in this labeling about PPE, restricted-entry intervals, and notification to workers. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard (WPS).

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has

ACCEPTED
AUG 14 2001
Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 71840-1

71840-1

8114/2001

Page 1 of 3

been treated, such as plants, soil or water, is coveralls, waterproof gloves and shoes plus socks.

SUBTILEX™ contains bacteria, which colonize the developing root system, suppressing disease organisms such as *Fusarium*, *Rhizoctonia*, *Alternaria* and *Aspergillus* that attack root systems. When used with a chemical seed treatment, the combination of chemicals and SUBTILEX™ provides protection to the root for a much longer time than with chemicals alone. As the root system develops, the bacteria grow with the roots extending the protection throughout the growing season. As a result of this biological protection, a vigorous root system is established by the plant, which often results in more uniform stands and greater yields.

In addition, SUBTILEX™ has been shown to increase the amount of nodulation by nitrogen-fixing bacteria when used on many legumes. This improvement in nodulation is a result of a healthier root system allowing more sites for nodules to form from inoculated or naturally occurring soil borne nitrogen-fixing bacteria.

FOR REFORMULATION INTO REGISTERED END-USE PRODUCTS

USE PATTERN: This product is for use for formulators in the manufacture of agricultural bio-fungicide products or pre-bagged peat moss or growing media products, offered for sale to the public, and which are duly registered with the Environmental Protection Agency, Washington, D.C.

FORMULATION ASSISTANCE: Additional information regarding specific problems in formulation involving this product may be obtained by writing: The MicroBio Group Ltd., 17 The High Street, Whittlesford, Cambridge, CB2 4LT, UK.

FOR USE AS A SEED TREATMENT

SUBTILEX™ may be applied as a water-based slurry with other registered seed treatment

insecticides and fungicides through standard slurry or mist commercial seed treatment equipment. To mix, first add the chemical insecticides and / or fungicides to the slurry mix with approximately ½ of the required water. Slowly add the SUBTILEX™ to the slurry until a uniform suspension is obtained. Add the remainder of the required water and maintain continuous agitation. Do not store mixed slurries for longer than 72 hours.

SEED TREATMENT APPLICATION RATES:

SUBTILEX™ may be used in combination with many registered seed treatment fungicides and insecticides. Pre-test for compatibility with other seed treatment products.

COTTON: For suppression of *Rhizoctonia* and *Fusarium* seedling diseases, and *Fusarium* wilt, apply 0.25 – 1.0 ounces per 100 lbs. of seed.

SEED AND POD VEGETABLES: (such as) green beans, snap beans, lima beans, kidney beans, navy beans, pinto beans, wax beans, pole beans, garden peas, peas and field beans: For suppression of root diseases caused by *Rhizoctonia* and *Fusarium*, apply 0.25 – 1.0 ounces per 100 lbs. of seed. For improvement of nodulation by *Rhizobium* in fields where appropriate strains are detectable, apply at 0.25 – 0.5 ounces per 100 lbs. of seed.

PEANUTS: For suppression of root diseases caused by *Rhizoctonia*, *Fusarium* and *Aspergillus*, and for improvement of nodulation by *Rhizobium*, apply at 0.25 – 0.5 ounces per 100 lbs. of seed as a dry blend with other registered seed treatment fungicides.

SOYBEANS: For suppression of root diseases caused by *Rhizoctonia* and *Fusarium*, and for improvement of nodulation by *Bradyrhizobium*, apply at 0.25 – 0.5 ounces per 100 lbs. of seed.

ALFALFA, FORAGE AND TURF GRASSES: For suppression of root diseases caused by *Rhizoctonia* and *Fusarium*, and for stimulation of germination and plant vigor, apply at a rate of 0.1 – 5.0 ounces (large – small seed varieties respectively) per 100 lbs. of seed as a dry blend, or mixed with other registered seed treatments or liquid seed coating agents.

WHEAT AND BARLEY: For suppression of root diseases caused by *Rhizoctonia* and *Fusarium*, apply 0.05 – 0.25 ounces per 100 lbs. of seed.

CORN: (Field and Sweet) For suppression of root disease caused by *Fusarium* and *Pythium*, apply 0.25 – 1.0 ounces per 100 lbs of seed.

FOR USE AS AN IN-FURROW TREATMENT

SUBTILEX™ may be applied as a water-based suspension with other in-furrow treatments (including MicroBio's Liquid Rhizobium inoculant) via standard commercial application machinery. To mix, first add the pesticide or Rhizobium liquid inoculant to the mix tank with approximately ½ of the required water. Slowly add the SUBTILEX™ to the slurry until a uniform suspension is obtained. Add the remainder of the required water and maintain continuous agitation. Apply SUBTILEX™ in 5 – 20 gallons of water per acre. Do not store mixed slurries for longer than 24 hours.

COTTON; SEED AND POD VEGETABLES; PEANUTS; SOYBEANS; ALFALFA; FORAGE AND TURF GRASSES; WHEAT AND BARLEY; CORN: apply at 0.125 – 0.5 ounces per acre.

FOR INCORPORATION INTO PEAT MOSS OR GROWING MEDIA

SUBTILEX™ may be applied as a water-based slurry with/without other registered seed treatment insecticide, fungicides or fertilizers. Pretest for compatibility with seed treatment products.

2
7
3

APPLICATION RATES: Add SUBTILEX™ to peat moss or soil-based growing media at a rate of 0.53 – 5.3 ounces per 100 cubic yards of loose growing media.

First mix the required amount of SUBTILEX™ with water (at the equivalent rate of 0.53 – 5.3 ounces / 131 gallons). Agitate continuously and then apply evenly with conventional spray equipment to the growing media.

IMPORTANT: Treated peat moss or growing media is only for non-bearing, non-fruiting plant use in protected growing environments (e.g. glasshouse or greenhouse), and is not for use in non-protected environments (e.g. non-contained nurseries or slat houses).

CHEMIGATION

Do not apply this product through any type of irrigation system.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Do not contaminate water by cleaning of equipment or disposal wastes.

STORAGE: Store in a dry place.

PRODUCT DISPOSAL: Wastes resulting from the use of this product may be disposed on site, or at an approved waste disposal facility.

CONTAINER DISPOSAL: Completely empty package by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into mixing equipment. Then dispose of package in a sanitary landfill or by incineration if allowed by State and local authorities. Dispose of box in the same manner. Do not reuse package or box.

NOTICE – READ CAREFULLY CONDITIONS OF SALE AND LIMITED WARRANTY STATEMENT

Treatment of highly mechanically damaged seed, or seed of known low vigor and poor quality, may result in reduced germination and/or reduction of seed and seedling vigor. Treat and conduct germination tests on a small portion of seed before committing the total seed lot to a selected chemical treatment. Due to seed quality conditions beyond the control of The MicroBio Group Ltd., no claims are made to guarantee germination of carry-over seed.

As its sole express warranty, The MicroBio Group Ltd., warrants that this product conforms to the chemical description on the label and is reasonably fit for purposes stated on the label only when used in accordance with directions and instructions specified on the label, subject to the inherent risks set forth above. **ONLY AS PERMITTED BY APPLICABLE LAW, IN THE EVENT OF A BREACH OF THIS LIMITED WARRANTY, THE MICROBIO GROUP LTD. SHALL NOT BE LIABLE FOR CONSEQUENTIAL DAMAGES, SUBJECT TO APPLICABLE LAW, THE MICROBIO GROUP LTD. NEITHER MAKES NOR AUTHORIZES ANY OF ITS AGENTS OR REPRESENTATIVES TO MAKE ANY WARRANTY OF FITNESS OR MERCHANTABILITY, GUARANTY OR REPRESENTATION, EXPRESS OR IMPLIED, CONCERNING THIS MATERIAL.** Buyer assumes the responsibility to handle, use and store this product in accordance with the safety instructions and use directions contained on the label.

The MicroBio Group Ltd. and the seller offer this product, and the Buyer / User accepts it, subject to the foregoing Conditions of Sale and Limited Warranty, which may be varied only by agreement in writing signed by a duly authorized representative of The MicroBio Group Ltd. If these terms are not acceptable, return all products at once, unopened.

3
80
3