

MATERIAL SAFETY DATA SHEET

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SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

- a. **Product Identifier: EndoFine[®] SI Nutrient Solubilizing Inoculant**
Registration Number: Not Available
Formulation Number: 1
Chemical Classes: N.A.
- b. **Synonyms:** Microbial Agent, Fungal spores, endophyte
- c. **Name of Supplier, Address and Emergency Telephone Number** - See above.
- d. **Product Use:** Supplements natural microflora in plants when diluted with water
- e. **Date of MSDS Preparation:** June 19, 2009

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

- a. **Identity of Ingredients:** Clonostachys rosea & talc
- b. **Ingredients present, which are on the OSHA Hazard List:** Not Applicable
- c. **Ingredients with unknown toxicological properties:** None
- d. **Ingredients the supplier believes may be harmful:** None
- e. **Generic chemical identity and Registry Number for trade secret ingredients registered under the Hazardous Materials Information Review Commission:** None
- f. **Ingredient concentration in units of wt./wt., vol./vol. or wt./vol. expressed as actual concentration:** Minimum Spore Concentration Per Gram is 4×10^7
- g. **Exposure limits for ingredients:** None

SECTION 3 - HAZARDS IDENTIFICATION

Potential Health Effects:

Relevant routes of exposure:

EYE CONTACT: N.A.

SKIN CONTACT: N. A.

INHALATION: Avoid inhaling dust...may cause irritation

INGESTION: N. A.

CHRONIC EFFECTS: None known.

SECTION 4 - FIRST AID MEASURES

IF IN CONTACT: Describe any symptoms, and follow the advice given.

EYES: Flush eyes with plenty of clean water.

SKIN: Wash area with plenty of water. Wash contaminated clothing before reuse.

INHALATION: Move the victim to fresh air.

INGESTION: If victim is fully conscious, immediately give a large amount of water to drink.

SECTION 5 - FIRE FIGHTING MEASURES

1. **Flash point and method:** Not available, not combustible.
2. **Upper and lower flammable (explosive) limits in air (% by volume):** Not applicable
3. **Auto ignition temperature:** Not applicable
4. **Hazardous combustion products:** Not applicable
5. **Conditions under which flammability could occur:** None
6. **Extinguishing media:** Water
7. **Sensitivity to explosion by mechanical impact:** No
8. **Sensitivity to explosion by static discharge.** No

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Procedures for dealing with release or spill: Clean up spills immediately, wearing protective clothing.

In case of a major spill: Isolate and barricade area and keep bystanders away. Contact local government for advice.

For small Spills: Isolate area and contain spill. Sweep up carefully and shovel into a disposable container. Disposal container must be labeled appropriately. Rinse area with water and soak up with absorbent.

SECTION 7 - HANDLING AND STORAGE

Handling practices:

Keep out of reach of children, unauthorized persons and animals. Avoid eye contact and prolonged skin contact. Avoid inhalation of mists. Wear protective clothing and after work, remove protective equipment, and wash hands before eating, smoking, drinking, or using the toilet. Clean up spilled material immediately, and clean clothes, equipment, and work area after use.

Appropriate storage practices/requirements:

Store in original container in a refrigerated 4°C secure area. Keep separate from other products to prevent cross contamination. Clean up any spilt material immediately.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Applicable control measures, including engineering controls:

Ensure work areas have ventilation, containment, and procedures sufficient to maintain airborne levels below the TLV listed. Develop written safety and inspection procedures. Warehouses, production areas, parking lots and waste holding facilities must have adequate containment to prevent environmental contamination. Provide separate shower and eating facilities.

Personal protective equipment for each exposure route:

Respirator: Use an approved NIOSH respirator if ventilation is not adequate, particularly in hot non-ventilated spaces.

Eyes: Wear safety glasses.

Skin: Avoid contact or wash after use.

Work place Exposure Guidelines.

Follow OSHA 29 CFR 1910.134 requirements whenever workplace conditions warrant use of a respirator.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

- a. **Appearance:** Beige colored powder
- b. **Odour:** Very slight pleasant odor
- c. **Physical state:** Powder
- d. **pH:** Not applicable
- e. **Vapour pressure and reference temperature:** Not available
- f. **Vapour density:** Not available
- g. **Boiling point:** Not available
- h. **Freezing/Melting point: do not freeze. Store at 2° to 5°C**
- i. **Density:** 0.4 gms/cc
- j. **Evaporation Rate:** Not available
- k. **Water/oil partition coefficient:** Not available
- l. **Odour threshold:** Not available
- m. **Viscosity:** Not applicable

SECTION 10 - STABILITY AND REACTIVITY

- a. **Chemical stability:** Stable – store in refrigerator at 4°C
- b. **Conditions to avoid:** Freezing or temperatures over 40°C
- c. **Incompatibility with other materials:** None.
- d. **Hazardous decomposition products:** None.
- e. **Hazardous polymerisation:** Will not occur

SECTION 11 - TOXICOLOGICAL INFORMATION

Information on product:

- a. **LD50 (species and route):** Not determined on this product.
LC50 (species) Not determined
- b. **Irritation data:** This product may irritate human eyes following contact.
- c. **Sensitisation:** This product is not expected to cause sensitisation.
- d. **Carcinogenicity:** Not determined
- e. **Reproductive toxicity:** Not determined.
- f. **Teratogenicity:** Not determined.
- g. **Mutagenicity:** Not determined
- h. **Chronic exposure:** None.
- i. **Other materials that show synergistic toxic effects together with the product:** None known.

SECTION 12 - ECOLOGICAL INFORMATION

No data is available on this product

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste disposal information:

Do not reuse containers. Rinse thoroughly three times. Consult state/ provincial environment ministry for advice on waste disposal of empty containers. All recovered material must be packaged, labeled, transported and disposed or reclaimed in conformance with applicable laws and regulations and in conformance with Good Engineering Practices. Reclaim where possible.

SECTION 14 - TRANSPORT INFORMATION

Shipping information such as shipping classification:

Ship and store away from food, feed, cosmetics, and medical supplies.

SECTION 15 - REGULATORY INFORMATION

TSCA INVENTORY STATUS: Not Applicable
SARA 311/312 HAZARD CATEGORIES: Not Applicable
SARA 313 TOXIC CHEMICALS: Not Applicable
SARA 302 EXTREMELY HAZARDOUS SUBSTANCES: Not Applicable
CERCLA HAZARDOUS SUBSTANCES: Not Applicable

SECTION 16 OTHER INFORMATION

HMS RATINGS: HEALTH: 0 FLAMMABILITY: 0 REACTIVITY 0.
NFPA RATINGS: HEALTH: 0 FLAMMABILITY: 0 REACTIVITY 0.

The information contained herein is offered only as a guide to the handling of this specific product and has been prepared in good faith by technically knowledgeable personnel. It is not intended to be all-inclusive and the manner and conditions of use and handling may involve other and additional considerations. It is the users responsibility to satisfy himself or herself as to the suitability and completeness of such information for his or her own particular use. No warranty of any kind is given or implied. Sylvan Bioproducts, Inc. will not be liable for any damages, losses, injuries or consequential damages, which may result from the use or reliance on any information, contained herein. EndoFine is a registered trademark of Adjuvants Plus Inc., Kingsville, Ontario.

EndoFine is protected under U.S. Patent No. 8,101,551