

Material Safety Data Sheet

Effective Date: 13-MAR-2001
Product: ESTECOL

I. IDENTIFICATION

Chemical Name: LIVE BACTERIA
Chemical Family: MICROORGANISMS
Formula: NOT APPLICABLE
Synonyms: NONE
CAS Number: NOT APPLICABLE
EPA Number: NOT REQUIRED

II. PHYSICAL DATA

Boiling Point: NOT DETERMINED
Freezing Point: 32 DEGREES F.
Spec Gravity: NOT DETERMINED
Vapor Pressure: NOT DETERMINED
Vapor Density: NOT DETERMINED
Solubility: MISCIBLE
Volatiles: NOT DETERMINED
Evaporation: NOT DETERMINED
Melting Point: NOT APPLICABLE
Appearance: CLEAR LIQUID WITH FAINT TINT, EARTHY ODOR.

III. INGREDIENTS

Material	CAS Number	Percent	TLV	Hazard
MICROORGANISMS COMPOSED OF BACILLUS, PSEUDOMONAS, AZOTOBACTER, AZOSPIRILLUM, RHIZOBIUM, AND SOIL BORNE CYANOBACTERIA (MINIMUM VIABLE CELLS PER MILLILITER (ML/OC) > 1 MILLION)		100.00	5 MG/M3	MILD SKIN & EYE IRRITANT

IV. FIRE AND EXPLOSION HAZARD

Flash Point: NON-COMBUSTIBLE
Autoignition Temp: NOT APPLICABLE
Flammable Limit: NOT APPLICABLE
Extinguishing Media: NON-COMBUSTIBLE LIQUID, USE EXTINGUISHING MEDIA FOR UNDERLYING CAUSE OF FIRE.
Special Fire Fight Proc: WEAR SELF-CONTAINED BREATHING APPARATUS WITH FULL PROTECTIVE EQUIPMENT.
Fire and Expl Hazard: FIRE OR EXCESSIVE HEAT MAY PRODUCE TOXIC VAPORS AND FUMES.

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V. HEALTH HAZARD

Carcinogen Information: NOT A CARCINOGEN

ACUTE EFFECTS OF OVER EXPOSURE

Swallowing: NON-TOXIC BY INGESTION.
Skin Absorption: INOCULANTS ARE CONSIDERED NON-TOXIC.
Inhalation: MAY CAUSE DISCOMFORT OF THE NOSE AND THROAT.
Skin contact: NOT IRRITATING TO THE SKIN.
Eye Contact: DIRECT CONTACT WITH EYES MAY CAUSE IRRITATION.
Chronic Effects: NONE KNOWN.
Other Hazard: NONE KNOWN.

EMERGENCY AND FIRST AID PROCEDURES

Swallowing: DRINK 1 OR 2 GLASSES OF WATER AND INDUCE
VOMITING BY TOUCHING BACK OF THROAT WITH
FINGER. NO TREATMENT NORMALLY NECESSARY.
Skin: WASH SKIN THOROUGHLY WITH SOAP AND WATER. NO
TREATMENT NORMALLY NECESSARY.
Inhalation: GET MEDICAL ATTENTION IF IRRITATION OR
DISCOMFORT DEVELOPS.
Eyes: FLUSH EYES WITH WATER FOR 15 MINUTES, HOLDING
EYELIDS OPEN. IF IRRITATION DEVELOPS, OBTAIN
MEDICAL ATTENTION IMMEDIATELY.
Notes to Physician: IN THE EVENT OF AN ADVERSE RESPONSE, TREATMENT
SHOULD BE DIRECTED TOWARD CONTROL OF THE
SYMPTOMS AND THE CLINICAL CONDITION OF THE
PATIENT.

VI. REACTIVITY

Stability: Stable
Conditions to Avoid: NONE CURRENTLY KNOWN.
Polymerization: Will Not Occur
Conditions to Avoid: NONE CURRENTLY KNOWN.
Incompatibility material: STRONG OXIDANTS.
Hazardous Combustion: PRODUCT MAY PRODUCE CARBON MONOXIDE AND CARBON
DIOXIDE UNDER FIRE CONDITIONS.

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VI. SPILL OR LEAK PROCEDURES

Spill or Leak Proc: DISPOSAL OF INOCULANTS MAY BE SUBJECT TO ENVIRONMENTAL REGULATIONS. USERS OF THIS PRODUCT SHOULD REVIEW THEIR OPERATIONS IN TERMS OF APPLICABLE FEDERAL, STATE AND LOCAL LAWS PRIOR TO DISPOSAL OF THIS MATERIAL.

Waste Disposal Method: THIS MATERIAL MUST BE DISPOSED OF ACCORDING TO FEDERAL, STATE, OR LOCAL PROCEDURES UNDER THE RESOURCE CONSERVATION AND RECOVERY ACT.

VIII. SPECIAL PROTECTION INFORMATION

Respiration: NONE NORMALLY NEEDED
Ventilation: USE LOCAL EXHAUST OR GENERAL VENTILATION.
Gloves: NONE NORMALLY REQUIRED.
Eyes: CHEMICAL GOGGLES.
Other: IMPERVIOUS APRON.

IX. SPECIAL PRECAUTIONS

Special precaution: KEEP OUT OF REACH OF CHILDREN. DO NOT STORE WITH FOOD, FEED, OR OTHER MATERIAL TO BE USED OR CONSUMED BY HUMANS OR ANIMALS. DO NOT CONTAMINATE WATER SUPPLIES, LAKES, STREAMS, OR PONDS. STORE IN DARK, FIBERGLASS OR PLASTIC CONTAINERS IN COOL, DRY PLACE, SO AS NOT TO EXPOSE MICROBES TO SUN/UV LIGHT.

Other precaution: NONE.

X. SHIPPING INFORMATION

Shipping name: NOT REGULATED BY DOT, IATA OR IMDG.
Hazard Class: NONE
Identification No: NONE
Labels Required: NONE REQUIRED
Placarding: NONE REQUIRED
Freight Class: BACTERIA, SOIL OR SEED INOCULANT(NMFC ITEM 20380, CLASS 60)

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Chemical Name	Equivalent R.Q.
NOT APPLICABLE	NOT APPLICABLE

XI. GENERAL PRODUCT INFORMATION

National Fire Protection Association Rating:
(Rating level: 4-Extreme, 3-High, 2-Moderate, 1-Slight, 0-Minimum)

Health: 1 Fire: 0 Reactivity: 0

S.A.R.A. Title III Hazard Classification: (Yes/No)

Immediate (Acute) Health: Y	Delayed (Chronic) Health: N
Sudden Release of pressure: N	Fire: N
Reactive: N	

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