Ecological Laboratories INC.
Providing Aquatic Solutions Since 1976

MATERIAL SAFETY DATA SHEET
PRODUCT: MICROBE-LIFT/ Romet TC

SECTION I: IDENTIFICATION

Manufactures Name:	Ecological Laboratories, Inc.
Address:	2525 N.E. 9th Avenue Cape Coral, FL 33909
Emergency Telephone:	(800)424-9300 (outside the U.S.A. (202) 483-7616 collect)
Information Telephone:	(800) 645-2976
Date Prepared:	12/01/08

SECTION II: COMPOSITIONS/ INGREDIENTS

INGREDIENT	CAS NO	% MAX
Ormetoprim	6981-18-6	2-7
Sulfadimethoxine	122-11-2	18-28

SECTION III: PHYSICAL/CHEMICAL CHARACTERISTICS

Physical State:	Fine Powder
Color:	White to light tan
Odor:	Characteristic
Pure/ Mixture:	Mixture

SECTION IV: FIRE AND EXPLOSION HAZARD DATA

Flash Point:	N/A
Extinguishing Media:	Water, Carbon Dioxide, Dry Chemical, Foam,
Unusual Fire and Explosion Hazards:	Violent decomposition may occur when heated or in a fire based on information on related materials. Possible dust explosion hazard based on information on related materials. Toxic emissions may be given off in a fire.
Fire Fighting Instructions:	Wear NIOSH/MSHA approved positive pressure, self-contained breathing apparatus and full protective turn out gear. Use caution in approaching fire. Remove containers of this material if it can be done safely. Use water to keep fire exposed containers cool.

SECTION V: REACTIVITY DATA

Stability:	Normally stable but may become unstable at elevated temperatures or reacts with water, releasing some energy but not violently.
Condition to Avoid:	Temperature >100 C, Dust accumulation, Airborne dust, Source of ignition.
Incompatibility Materials to Avoid:	Unknown

Decomposition Products:	Carbon Dioxide, Carbon Monoxide, and Oxides of nitrogen and sulfur.
Polymerization:	No
Condition of Polymerization:	Will not occur.

SECTION VI: HEALTH HAZARD DATA

Emergency overview

Physical State:	Fine Powder
Color:	White to light tan
Odor:	Characteristic

Possible dust explosion hazard based on information related materials.

Potential Health Effects

Relevant Routes of Exposure:	Inhalation, Skin Absorption, Eye Contact, Ingestion.
Target Organs:	Dermal System, Immune System, Hematopoietic/ Blood System
Acute Effects General:	May cause allergic reactions. May cause mucous membrane irritation (inflammation)
Eye:	May cause eye irritation
Chronic Effects General:	May cause blood system effects

Carcinogenicity: Formulation not listed by NTP, IARC, or OSHA

Reproductive Toxicity:	May cause birth defects based on animal data. Since this material may affect the developing fetus, females planning to have a child and pregnant women should exercise caution regarding exposure. It is also advisable for nursing mothers to exercises caution regarding exposure.
Ormetoprim:	May cause birth defects based on information on related materials
Sulfadomethoxine:	May cause birth defects based on animal data
Condition Aggravated:	Hypersensitivity to this material. Asthma, Kidney conditions and/or impaired renal function. Blood System Disorders. Folic acid deficiency.

SECTION VII: PRECAUTIONS FOR SAFE HANDLING, USE AND DISPOSAL

Special Sensitivity:
Exposure to the following may effect the integrity of this material: Do not heat above 100 C

Handling & Storage Precautions
Do not generate dust or expose to ignition sources.
Ground and bond all transfer equipment.
Milling/mixing/drying should be done at the lowest possible temperature under vacuum or inert condition.
Vacuum or inert conditions.
Use with adequate ventilations.
Avoid contact with eyes, skin, and clothing.
Avoid breathing dust.
When handling, use proper personal protective equipment specified in Section 8.
Wash thoroughly after handling.
Keep container tightly closed when not in use.
Store out of direct sunlight in a well ventilated area at room temperature.

Spill Clean Up Procedures
Review “Section 3. Hazards Identification”, “Section 8. Exposure Control/Personal Protection” before proceeding with the clean up. Shut off the source of the spill or leak if it is safe to do so. Eliminate possible ignition sources. Scoop or shovel spilled material into a suitable labeled open head drum. Secure the drum cover and move the container to a safe holding area. Clean spill area thoroughly.

Treatment and Disposal
Decontaminate all protective clothing and equipment. See “Section 13. Disposal Consideration” for disposal information.

Reporting Requirements
The United State Environmental Protection Agency (USEPA) has not established a Reportable Quantity (RQ) for releases of this material. In New Jersey, report all releases which are likely to endanger the public health, jar, the environment or cause a complaint to the NJDEPE Hotline (1-609-292-5560) and to local officials. State and local regulation vary and may impose additional reporting requirements.

Disposal Recommendations
Dispose in accordance with local, state and federal regulations

RCRA Waste #
Not regulated under RCRA

Empty Containers
Empty containers must be triple rinsed prior to disposal, recycling, or reuse.

SECTION VIII: CONTROL MEASURES

ENIGNEERING CONTROLS Ventilation
General room ventilation is adequate unless the process generated airborne dust or fume.

Respirator Type(s)
Half Face, Toxic Dust/Mist/Fume High Efficiency Filter.

Condition for Use
Respiratory protection is recommended as a precaution to minimize exposure. Respiratory protection is a recommend under excessively dusty conditions. OSHA considers effective engineering controls to be the primary means to control worker exposure. Respiratory protection should not be substitute for feasible engineering controls. Whenever respiratory precaution is used, a complete respirator program should be developed in accordance with OSHA subpart I (29CFR1910.134) requirements.

Gloves Materials
Any plastic or rubber glove.

Condition for Use
Gloves are recommended if there is a potential for skin contact.

Skin Protection
Use protective clothing (labs coats, disposable coveralls, etc) in both production and laboratory areas.

Eye Protection
Safety Glasses Required.

OTHER CONTROL MEASURES

Additional Protective Measures
Work clothing should be removed in a change room on site and laundered professionally. Prevent the accumulation of dust in the work area by thorough periodic cleaning of the area.

Exposure Limits
There are no exposure limits specified either for this material or for any of its ingredients.

SECTION IX: TOXICOLOGY INFORMATION

Ormetoprim

Acute Oral, Single Dose, Rat: 665 mg/kg
Summary: Acute oral LD50 (rat) is 665 mg/kg/body weight, which classifies this material as moderately toxic orally under the study conditions utilized.

Irritation Eye, Single Dose, Rabbit
Summary: An eye irritation study with New Zealand while rabbits produced a score of 2.3, 0.0 and 0.0 for 1 day, 2 days and 3 days post-installation, respectively, which indicates that this material was practically non-irritating to the eyes of rabbits under the study conditions utilized.

Mutagenicity Salmonella Typhimurium
Summary: This material was found to be non-mutagenic in the Ames assay, with or without metabolic activations, mouse lymphoma forward mutation assay and unscheduled DNA synthesis assay using rat hepatcytes.

Sulfadimethoxine

Acute Oral, Single Dose, Rat: 4000 mg/kg
Summary: Acute oral LD50 (rat) of 4000 mg/kg/body weight at 5 days classifies this material as slightly toxic orally under the study condition utilized.

Subacute/ Subchronic Oral, Dog
Summary: Studies in dogs have shown thyroid gland enlargement and diffuse follicular hyperplasia.

Subacute/ Subchronic Oral, 90 Day Rat
Summary: This material was administered daily to rats as a dietary admixture at levels of 0, 5, 10, and 20 mg/kg/day for thirteen weeks (90 days). No abnormal signs in general health or behavior were observed. No abnormalities were noted in hematologic, clinical chemistry, and urinalysis studies, and gross examination of internal organs. Gross examination and histological study of the thyroid glands revealed enlargement and diffuse follicular cell hyperplasia limited to the high dose group.

Reproductive Oral, Rat
Summary: Twenty male and twenty female rats were fed a dietary admixture of 50mg/kg/day for 74 weeks. Mating occurred during the eleventh week and first generation of 52 weanlings was produced. No malformations were observed. The first generation was maintained of 50mg/kg/day for 75 weeks without and adverse effects.

Teratogenicity Oral, Rat
Summary: Studies with pregnant rats given this material on days 8-16 of pregnancy at 267 and 400 mg/kg/day showed birth defects manifested as mainly cleft palate.

Mutagenicity
Summary: In a study to evaluate the ability of this material to induce unscheduled DNA synthesis, no indication of a significant degree of DNA repair was observed. This indicates no evidence of mutagenic activity under the sudy conditions utilized.

SECTION X: ECOLOGICAL INFORMATION

Ecological Information
No ecological data available on this material.

SECTION XI: TRANSPORT INFORMATION

Enforcement Agency: US Dept. of Transportation
Country/Community: USA
Proper Ship. Name: Non-regulated

Enforcement Agency: International Air Transport Association
Transportation Mode: Air
Country/Community: International
Proper Ship. Name: Non-regulated

Enforcement Agency: International Maritime Organization
Transportation Mode: Ocean
Country/Community: International
Proper Ship. Name: Non-regulated

SECTION XII: REGULATORY INFORMATION

Law/Regulation: Hazardous Chemical Reporting: Community Right-To-Know 40CFR370
Common Name: SARA Title III Section 312 Hazardous Chemical Inventory
Enforcement Agency: Environmental Protection Agency (EPA)
Governing Authority: USA
Criteria Met: Acute, Fire

Law/Regulation: Safe Drinking Water and Toxic Enforcement Act of 1986 Proposition 65
Common Name: Prop 65
Enforcement Agency: California Environmental Protection Agency
Governing Authority: California, USA
Criteria Met: Acute, Fire

SECTION XIII: OTHER INFORMATION

Additional Information: NFPA Rating: These ratings are based on NFPA Code 704 and are intended for use by emergency personnel to determine the immediate hazards of a material.

Health	1
Fire	2
Reactivity	1