

MATERIAL SAFETY DATA SHEET

Date Issued: 9/25/11
Date Revised:
Revision No: 2.5
Sierra Natural Science Inc.

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: SNS-244C Concentrate Fungicide
GENERAL USE: Fungal Control on plants, Concentrated Solution
PRODUCT FORMULATION NAME: SNS-244 C Concentrate Fungicide
CHEMICAL FAMILY: Botanical Extract – Thyme oil, Clove oil, Rosemary oil
GENERIC NAME: Compounded aqueous solution of Botanical extracts / oils with surfactant

MANUFACTURER
Sierra Natural Science Inc.
PO Box 2230
Pollock Pines, CA. 95726

24 HR. EMERGENCY TELEPHONE NUMBERS
For Chemical Emergency ONLY (spill, leak, fire, exposure or accident), call CHEMTREC at
1-800-424-9300

Non-Emergency Customer Service:
1-877-626-5505

COMMENTS: To the best of our knowledge, this Material Safety Data Sheet conforms to the requirements of US OSHA 29 CFR 1910.1200, 91/155/EEC and Canadian Hazardous Products Act.

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>Wt%</u>	<u>CAS#</u>	<u>Hazardous</u>
Thyme Oil	1.2%	8007-46-3	No
Clove Oil	0.2%	8000-34-8	No
Rosemary Oil	0.05%	8000-25-7	No
Polyglyceryl Oleate	0.5%	9007-48-1	No
Cod Liver Oil	0.4%	8001-69-2	No
Quillaja Saponaria	0.0006%	1393-03-9	No
Water Balance to:	100%	7732-18-5	No

COMMENTS: Product composition ranges shown are typical values for health, safety and environmental use and are not intended as specifications.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Potential Acute Health Effects: Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

Potential Chronic Health Effects:

Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

CARCINOGENIC EFFECTS: Not available.

MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS: Not available.

DEVELOPMENTAL TOXICITY: Not available.

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Health Rating: 2 – Moderate
Flammability Rating: 1 – Slight

Reactivity Rating: 0 – None
Contact Rating: 1 – Slight
Lab Protective Equipment: Goggles; Protective Clothing; Vent Hood; Proper Gloves

4. FIRST AID MEASURES

NFPA Ratings: Health: 2 Flammability: 1 Reactivity: 0

EYES: Immediately flush eyes with plenty of water for several minutes, lifting lower and upper eyelids occasionally. Seek medical attention if irritation persists.

SKIN: Remove contaminated clothing including shoes and wash affected skin with soap and water. Seek medical attention if irritation develops and persists. Wash contaminated clothing and shoes before reuse.

INGESTION: Do NOT induce vomiting. Seek medical attention if ill effects occur.

INHALATION: Remove from further exposure. Seek medical attention if ill effects occur.

5. FIRE FIGHTING MEASURES

Flammability of the Product: May be combustible at high temperature.

Auto-Ignition Temperature: Not available.

Flash Points: Not available.

Flammable Limits: Not available.

Products of Combustion: Not available.

Fire Hazards in Presence of Various Substances: Not available.

Explosion Hazards in Presence of Various Substances:

Risks of explosion of the product in presence of mechanical impact: Not available.

Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions:

SMALL FIRE: Use DRY chemical powder.

LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

6. ACCIDENTAL RELEASE MEASURES

Small Spill: Absorb with an inert material and put the spilled material in an appropriate waste disposal.

Large Spill: Absorb with an inert material and put the spilled material in an appropriate waste disposal.

Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

7. HANDLING AND STORAGE

Precautions:

Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk; evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/vapor/spray. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes.

Storage:

Keep container dry. Keep in a cool place. Ground all equipment containing material. Keep container tightly closed. Keep in a cool, well-ventilated place. Combustible materials should be stored away from extreme heat and away from strong oxidizing agents.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection:

Splash goggles. Lab coat. Gloves.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist before handling this product.

Exposure Limits: Not available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state and appearance: Liquid.

Odor: Characteristic. Thyme

Taste: Characteristic. Thyme

Molecular Weight: Not available.

Color: White to light yellow / brown

pH 6.0 to 6.7

pH (1% soln/water): Not applicable.

Boiling Point: Not available.

Melting Point: Not available.

Dispersion Properties: See solubility in water

Solubility: Solubility in cold water.

Critical Temperature: Not available.

Specific Gravity: .998 (Water = 1)

Vapor Pressure: Not available.

Vapor Density: Not available.

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: Not available.

Ionicity (in Water): Not available.

10. STABILITY AND REACTIVITY

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Not available.

Incompatibility with various substances: Not available.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity: Not available.

Special Remarks on Corrosivity: Not available.

Polymerization:No.

11. TOXICOLOGICAL INFORMATION

Routes of Entry: Eye contact. Inhalation. Ingestion.

Toxicity to Animals: Acute oral toxicity of Thyme oil (LD50): 4.7g/kg [Rat].

Chronic Effects on Humans: Not available.

Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of ingestion, of inhalation.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans: Not available.

12. ECOLOGICAL INFORMATION

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are more toxic.

Special Remarks on the Products of Biodegradation: Not available.

13. DISPOSAL CONSIDERATIONS

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. TRANSPORT INFORMATION

DOT Classification: Not a DOT controlled material (United States).

Identification: Not applicable.

Special Provisions for Transport: Not applicable.

15. REGULATORY INFORMATION

Federal and State Regulations: TSCA 8(b) inventory: Thyme oil.

Other Regulations: Not available.

Other Classifications:

WHMIS (Canada): Not controlled under WHMIS (Canada).

DSCL (EEC): R36/38- Irritating to eyes and skin.

HMIS (U.S.A.):

Health Hazard: 2

Fire Hazard: 1

Reactivity: 0

Personal Protection: h

National Fire Protection Association (U.S.A.):

Health: 2

Flammability: 1

Reactivity: 0

Specific hazard:

Protective Equipment: Gloves. Lab coat. Splash goggles.

16. OTHER INFORMATION

MANUFACTURER DISCLAIMER: Information given herein is offered in good faith as accurate, but without guarantee. Conditions of use and suitability of the product for particular uses are beyond our control; all risks of use of the product are therefore assumed by the user. Nothing is intended as a recommendation for uses which infringe valid patents or as extending license under valid patents. Appropriate warnings and safe handling procedures should be provided to handlers and users.