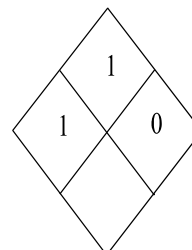


## MATERIAL SAFETY DATA SHEET

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** TRE-HOLD® SPROUT INHIBITOR for CITRUS  
**GENERAL USE:** Sprout Inhibitor for Non-bearing Citrus and Nectarines  
**PRODUCT DESCRIPTION:** White Liquid  
**EPA Registration Number:** 5481-434  
**MSDS No.:** 218\_8  
**Current Revision Date:** 6 April, 2006



**MANUFACTURER:**  
AMVAC CHEMICAL CORPORATION  
4100 E. Washington Blvd.  
Los Angeles, CA 90023-4406  
Ph: 323-264-3910  
FAX: 323-268-1028

**EMERGENCY TELEPHONE NUMBERS:**  
**MANUFACTURER:** 323-264-3910  
**TRANSPORTATION (24 HOURS)**  
**CHEMTREC:** 800-424-9300  
**OTHER (24 HOURS)**  
**AMVAC:** 323-264-3910

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT	WT %	CAS No.
Ethyl 1-naphthaleneacetate	1.15%	2122-70-5
Inert Ingredients	98.85%	N/A

#### OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)

COMPONENT	HAZARD	OSHA PEL*	ACGIH TLV*
None			

\* Exposure Limits 8 hrs. TWA (ppm)

TRE-HOLD is a registered trademark of AMVAC Chemical Corporation.

3. **HAZARDS IDENTIFICATION**

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**EMERGENCY OVERVIEW:**

**CAUTION! Harmful if swallowed or inhaled. Can cause eye and skin irritation. Avoid contact with eyes, skin or clothing. Keep Out of Reach Of Children!**

**Do not contaminate water when disposing of equipment washwaters. Do not apply directly to water or areas that are regularly under water.**

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**POTENTIAL HEALTH EFFECTS**

**ROUTE(S) OF ENTRY:** Ingestion, inhalation, skin and eye contact.

**SIGNS OF ACUTE OVEREXPOSURE:** Excessive inhalation may cause coughing, wheezing and difficulty with breathing. Ingestion may cause nausea, diarrhea, vomiting, and abdominal pains. Skin and eye contact may cause slight irritation.

**SIGNS OF CHRONIC OVEREXPOSURE:** Chronic exposure may cause a progressive chemical pneumonitis, cyanosis, and pulmonary edema.

**CARCINOGENICITY:** No data are available on this product. Studies carried out on Technical 1-Naphthaleneacetic Acid, Sodium Salt and 1-Naphthaleneacetamide, structurally related products, have shown no evidence of carcinogenicity in rats or mice.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** Persons with preexisting skin disorders, impaired respiratory function, or a history of pulmonary disease should not be exposed to vapors or dusts.

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4. **FIRST AID MEASURES**

**EYES:** Immediately flush the eyes with copious amounts of clear, cool running water for a minimum of 15 minutes. Hold the eyelids apart during the flushing to ensure rinsing of the entire surface of the eyes and lids with water. Contact a physician if irritation persists.

**INHALATION:** Remove victim to fresh air. If breathing has ceased, clear the victim's airway and start mouth-to-mouth artificial respiration. If breathing is difficult, give oxygen. Contact a physician immediately.

**INGESTION:** Do not induce Vomiting. Immediately dilute the swallowed product by giving large quantities of water. Never give anything by mouth to an unconscious person. Contact a physician immediately.

**4. FIRST AID MEASURES, cont'd**

**SKIN:** Immediately flush all affected areas with large amounts of clear water for at least 15 minutes. Remove contaminated clothing. Do not attempt to neutralize with chemical agents. Wash clothing before reuse. If skin irritation persists, contact a physician.

**NOTE TO PHYSICIANS:** No specific antidote is available. Treat symptomatically. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. For more information contact your local or state Poison Control Center.

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**5. FIRE FIGHTING MEASURES**

**FLAMMABLE PROPERTIES**

Flash Point: > 300°F

Autoignition Temperature: > 400

Flammable Limits:

Lower flammable limit: Not available

Upper flammable limit: Not available

**EXPLOSIVITY**

Mechanical Impact: Not explosive

Static Discharge: Will not occur

**HAZARDOUS COMBUSTION PRODUCTS:** Heating to the decomposition point may generate hazardous fumes and vapors.

**EXTINGUISHING MEDIA:** Water spray, dry chemical, alcohol foam, or carbon dioxide.

**FIRE FIGHTING INSTRUCTIONS:** In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Dike area to prevent runoff from entering drains, sewers, and water courses.

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**6. ACCIDENTAL RELEASE MEASURES**

**GENERAL:** Use adequate ventilation. Cleanup personnel should wear appropriate personal protective equipment (PPE, see Section 8). Keep bystanders upwind and away from the spill.

**SMALL SPILL:** Cover the spill with absorbent material. Shovel the mixture into a sealable container for disposal as a hazardous waste. If spilled on the ground, the affected area should be removed to a depth of one or two inches and placed into an appropriate container for disposal.

6. **ACCIDENTAL RELEASE MEASURES, cont'd**

**LARGE SPILL:** Dike the spilled product to prevent contamination of bodies of water. Siphon the liquid into a closed container. Clean up the area as for a small spill.

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7. **HANDLING AND STORAGE**

**HANDLING:** Prevent inhalation of mist or vapors by working with adequate ventilation. Prevent contact by wearing appropriate Personal Protective Equipment (PPE, Section 8 below). Wash thoroughly after handling.

**STORAGE:** Store in the original container in a cool, dry, ventilated area. Protect against physical damage. Keep separate from fertilizers, seeds, insecticides or fungicides. Do not use or store near heat or open flame. Do not contaminate bodies of water.

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8. **EXPOSURE CONTROLS/PERSONAL PROTECTION**

**ENGINEERING CONTROLS:** A system of local and/or general exhaust is recommended to minimize employee exposures.

**RESPIRATORY PROTECTION:** A NIOSH/MSHA approved respirator fitted with cartridges for pesticide mist should be used when airborne concentrations exceed allowable exposure limits and local/general exhaust systems are inadequate to prevent the exposure.

**SKIN PROTECTION:** The following personal protective equipment (PPE) is required for use with this product - long-sleeved shirt and long pants, waterproof gloves and shoes plus socks. Clothing should be changed daily. Washy soiled clothing separately from other clothing.

**EYE PROTECTION:** Safety glasses are required whenever chemicals are handled. In addition, goggles or a faceshield should be used whenever splashing is a possibility.

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9. **PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State:</b>	Liquid
<b>Appearance:</b>	Opaque white liquid
<b>Odor:</b>	Mild chemical odor
<b>Odor Threshold:</b>	Not determined
<b>Boiling Point:</b>	Not determined
<b>Freezing/Melting Point:</b>	Not available
<b>Specific Gravity:</b>	1.091 g/mL
<b>Density:</b>	9.10 lb/gal
<b>Vapor Pressure (mm/Hg):</b>	Not available
<b>Vapor Density:</b>	Heavier than air

9. **PHYSICAL AND CHEMICAL PROPERTIES, cont'd**

Percent Volatile by Vol:	Not available
Solubility in Water:	Dispersible
Solubility (Other):	Partly soluble in petroleum solvents
Partition Coefficient (O/W):	Not available
pH:	Not available
Evaporation Rate:	1.0 (compared to water)

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10. **STABILITY AND REACTIVITY**

**CHEMICAL STABILITY (Conditions to avoid):** Stable under normal use and storage conditions.

**INCOMPATIBILITY:** Avoid strong oxidizing agents.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Heating to decomposition may cause the formation of carbon monoxide and unknown fumes and vapors.

**HAZARDOUS POLYMERIZATION:** This product will not polymerize.

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11. **TOXICOLOGICAL INFORMATION**

<b>INGESTION:</b>	Oral LD <sub>50</sub> (rat):	> 5050 mg/kg (Toxicity Category IV)
<b>INHALATION:</b>	Inhalation LC <sub>50</sub> (rat):	>0.95 mg/L (Toxicity Category III)
<b>DERMAL:</b>	Skin LD <sub>50</sub> (rabbit):	2020 mg/kg (Toxicity Category III)
<b>EYE IRRITATION:</b>	Eye irritation:	Minimal irritation (Toxicity Category IV)
<b>OTHER:</b>	Skin irritation:	Slightly Irritating (Toxicity Category IV)
	Skin sensitization:	Not a sensitizer (guinea pig)

**TERATOGENICITY:** No data are available on this product. Tests carried out on Technical 1-Naphthaleneacetic Acid Sodium Salt have shown developmental effects on the fetus at maternally toxic dose levels in the rat and rabbit..

**MUTAGENICITY:** No data available on this product. There is no evidence of genotoxic potential, *in vivo*, when Technical 1-Naphthaleneacetic Acid Sodium Salt was tested.

**CARCINOGENICITY:** No data are available on this product. There was no evidence of carcinogenicity from laboratory studies carried out on Technical 1-Naphthaleneacetic Acid, Sodium Salt and Technical 1-Naphthaleneacetamide in rodents.

**REPRODUCTIVE TOXICITY:** No data are available on this product. A study carried out on Technical 1-Naphthaleneacetic Acid, Sodium Salt, has shown no reproductive effects. At the highest dose level tested there was some evidence of parental toxicity with accompanying associated effects on offspring survival and growth.

**TOXICOLOGICALLY SYNERGISTIC PRODUCTS:** No data is available.

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**12. ECOLOGICAL INFORMATION**

**GENERAL:** Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark.

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**13. DISPOSAL CONSIDERATIONS**

**UNUSABLE PRODUCT OR WASTE:** Do not contaminate water, food or feed by disposal. Wastes resulting from the use of this product may be disposed on site by use according to the label or at an approved waste disposal facility. Be sure to check with the appropriate Federal, State and local authorities to determine the current regulations for your area.

**CONTAINER:** Do not reuse the empty container. Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose in a sanitary landfill, or by incineration, or, if allowed by State and local authorities, by burning. If the container is burned stay out of the smoke. Be sure to check with the appropriate Federal, State and local authorities to determine the current regulations for your area.

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**14. TRANSPORTATION INFORMATION**

<b>DOT CLASS:</b>	None assigned
<b>UN NUMBER:</b>	None assigned
<b>IMDG CLASS (SEA):</b>	None assigned
<b>MARINE POLLUTANT:</b>	No
<b>PACKING GROUP:</b>	None assigned
<b>HAZARD LABEL(S):</b>	None
<b>PROPER SHIPPING NAME(S):</b>	None assigned
<b>REPORTABLE QUANTITY:</b>	None

**PACKAGING**

**GENERAL DESCRIPTION:** 2½ gallon bottles

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**15. REGULATORY INFORMATION**

**U.S. FEDERAL REGULATIONS:** This product is registered under EPA/FIFRA Regulations. It is a violation of Federal Law to use this product in any manner inconsistent with its labeling. Read and follow all label directions. This product is excluded from listing requirements under EPA/TSCA.

**15. REGULATORY INFORMATION, cont'd**

**SARA TITLE III DATA**

**Section 311 & 312 Hazard Categories:**

Immediate Health Hazard:	Yes
Delayed Health Hazard:	Yes
Fire Hazard:	No
Reactive Hazard:	No
Sudden Pressure Release Hazard:	No

**Section 302 Extremely Hazardous Substances:** None

**Section 313 Toxic Chemicals:** None

**CERCLA Reportable Quantities (RQ):** None

**STATE REGULATIONS:**

**CALIFORNIA (Proposition 65):** None

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**16. OTHER INFORMATION**

**MSDS Status:**

**Date This Revision:** 6 April, 2006

**Date Previous Revision:** 10/04/02

**Person Responsible for Preparation:** Gary A. Braden

**REASONS FOR REVISION:** Annual Review. Changes were made in sections 3, 9, 11 and 13 to reflect the results of new studies.

**DISCLAIMER:** This information is provided for the limited guidance to the user. While AMVAC believes that the information is, as of the date hereof, reliable, it is the user's responsibility to determine the suitability of the information for its purposes. The user is advised not to construe the information as absolutely complete since additional information may be necessary or desirable when particular, exceptional, or variable conditions or circumstances exist (like combinations with other materials), or because of applicable regulations. No express or implied warranty of merchantability or fitness for a particular purpose or otherwise is made hereunder with respect to the information or the product to which the information relates.

**16. OTHER INFORMATION, cont'd**

**ABBREVIATIONS:**

ACGIH	-	American Conference of Governmental Industrial Hygienists
ADR	-	European <u>A</u> greement Concerning the International Carriage of <u>D</u> angerous Goods by <u>R</u> oad
CERCLA	-	Comprehensive Environmental Response, Compensation, and Liability Act
EPA	-	Environmental Protection Agency
FIFRA	-	Federal Insecticide, Fungicide, and Rodenticide Act
IARC	-	International Agency for Research on Cancer
NTP	-	National Toxicology Program
OSHA	-	Occupational Safety and Health Agency
SARA	-	Superfund Amendments and Reauthorization Act
TSCA	-	Toxic Substances Control Act

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This is the last page of this MSDS. There should be 8 pages.