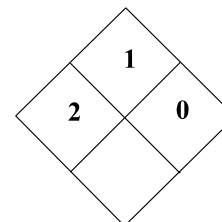


MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: TRE-HOLD® SPROUT INHIBITOR A-112
GENERAL USE: Sprout Inhibitor for apple, olive, and pear trees
PRODUCT DESCRIPTION: Clear to light brown liquid with an aromatic solvent odor
EPA Registration Number: 5481-429
MSDS No.: 217_8
Current Revision Date: 25 November, 2008



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-naphthylacetate	15.1 %	2122-70-5
Aromatic Solvent	77.9 %	68477-31-6
Contains Naphthalene	5.0	91-20-3
Other Ingredients	7.0 %	N/A

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)

COMPONENT	HAZARD	OSHA PEL*	ACGIH TLV*
Aromatic solvent	Combustible, CNS Depression	500 ppm	
Naphthalene	Carcinogen	10 ppm	10 ppm (TWA) 15 ppm (STEL)

* Exposure Limits 8 hrs. TWA

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

3. **HAZARDS IDENTIFICATION**

EMERGENCY OVERVIEW:

WARNING! May be irritating to the eyes and respiratory tract. Harmful if swallowed or inhaled. Causes skin irritation. Avoid contact with eyes, skin or clothing. Keep Out of Reach Of Children!

CAUTION! Combustible! Keep away from sources of ignition.

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

KEEP OUT OF REACH OF CHILDREN!

POTENTIAL HEALTH EFFECTS

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

SIGNS OF ACUTE OVEREXPOSURE: Skin and mucous membrane irritation. Coughing, wheezing and expectoration. Minor redness of the skin.

SIGNS OF CHRONIC OVEREXPOSURE: Symptoms are the same as above.

OTHER POTENTIAL EFFECTS: Structurally related compounds, containing the sodium salt of Naphthaleneacetic acid (NAA) and Naphthaleneacetamide (NAD), have shown no evidence of carcinogenicity when tested in laboratory animals.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Preexisting skin or respiratory disorders may be aggravated by this product.

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, preferably an ophthalmologist, if irritation persists after thorough washing.

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.

4. FIRST AID MEASURES, cont'd

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

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. All treatments should be based on observed signs and symptoms of distress in the patient. Overexposure to materials other than this product may have occurred. If large amounts (greater than 1 mL/kg body weight) of the product have been ingested, the stomach should be evacuated by gastric intubation with the aid of a cuffed endotracheal tube to prevent aspiration of petroleum distillates. For more information call your local Poison Control Center.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES:

Flash Point: 203°F (TCC)

Autoignition Temperature: 932°F

Flammable Limits:

Lower flammable limit: 1.8 % @ 77°F

Upper flammable limit: 11.8 % @ 77°F

EXPLOSIVITY:

Mechanical Impact: Not explosive

Static Discharge: Due to the presence of the aromatic solvent, this product may accumulate static charges which can cause an incendiary electrical discharge. All containers need to be grounded.

HAZARDOUS COMBUSTION PRODUCTS: Combustion products may include sulfur oxides, carbon oxides, and other unknown vapors and fumes.

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. Evacuate people who are downwind of fire. Wash all protective clothing before reuse.

6. ACCIDENTAL RELEASE MEASURES

GENERAL: Combustible liquid. Remove all sources of ignition from the area. Use adequate ventilation. Cleanup personnel should wear appropriate personal protective equipment (PPE, Section 8). Keep bystanders upwind and away from the spill.

6. ACCIDENTAL RELEASE MEASURES, cont'd

SMALL SPILL: Cover the spill with absorbent material, such as sand, earth, or diatomaceous earth. Shovel the mixture into a sealable container for disposal as a hazardous waste.

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.

7. HANDLING AND STORAGE

HANDLING: Prevent inhalation of dust, 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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

RESPIRATORY PROTECTION: A MSHA/NIOSH-approved respirator fitted with organic vapor cartridges is required if the vapors cannot be controlled below the TLV by engineering controls.

SKIN PROTECTION: The following personal protective equipment (PPE) is required for use with this product - long-sleeved shirt and long pants, solvent resistant gloves (for example: Viton or barrier laminate) and chemical resistant footwear plus socks.

EYE PROTECTION: Safety glasses with sideshields should be used whenever one is working with chemicals. If there is a chance of splashing or misting goggles or a full face shield should also be used.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	Liquid
APPEARANCE:	Clear to light brown liquid
ODOR:	Aromatic solvent odor
ODOR THRESHOLD:	None established
BOILING POINT:	457-540°F (236-282°C)
FREEZING/MELTING POINT:	Approximately 15°F

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

SPECIFIC GRAVITY:	1.006 @ 22°C
DENSITY:	8.39 lb/gal
VAPOR PRESSURE (mm/Hg):	.05 mm Hg @ 68°F
PERCENT VOLATILE BY VOLUME:	78%
SOLUBILITY IN WATER:	Emulsifiable
SOLUBILITY (Other):	This product is soluble in esters, ketones, and aromatic solvents.
PARTITION COEFFICIENT (O/W):	Not available
pH:	Not available
EVAPORATION RATE:	Not available

10. **STABILITY AND REACTIVITY**

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

INCOMPATIBILITY: Combustible. Keep away from sources of ignition. Avoid strong bases and strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Burning may cause the formation of carbon monoxide and unknown fumes and vapors.

HAZARDOUS POLYMERIZATION: This product will not polymerize.

11. **TOXICOLOGICAL INFORMATION**

GENERAL: The only information currently available for this product is the eye irritation data. All other information is for the active ingredient or related technical materials.

INGESTION:	Oral LD ₅₀ (rat):	2300 mg/kg (Toxicity Category III)
INHALATION:	Inhalation LC ₅₀ (rat):	>2.13 mg/L (Toxicity Category IV)
DERMAL:	Skin LD ₅₀ (rabbit):	> 2020 mg/kg (Toxicity Category III)
IRRITATION:	Eye irritation (rabbit):	Moderately irritating (Toxicity Category III).
	Skin irritation (rabbit):	Not a skin irritant (Toxicity Category IV.)
SENSITIZATION:	Skin sensitization: (guinea pig)	Not a sensitizer

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

MUTAGENICITY: No data are available on this product. There is no evidence of genotoxic potential, *in vivo*, when Technical 1-Naphthaleneacetic acid, Ethyl ester, 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.

11. TOXICOLOGICAL INFORMATION, cont'd

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 are available for this product nor for other related compounds.

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.

13. DISPOSAL CONSIDERATIONS

PESTICIDE DISPOSAL: 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 DISPOSAL: 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.

14. TRANSPORTATION INFORMATION

SHIPPING:

DOT CLASS:	None assigned
UN NUMBER:	None assigned
IMDG CLASS (SEA):	None assigned
IATA CLASS (AIR):	None assigned
MARINE POLLUTANT:	No
PACKING GROUP:	None assigned
HAZARD LABEL(S):	None
ADR CLASS (ROAD):	None assigned
PROPER SHIPPING NAME(S):	None assigned
REPORTABLE QUANTITY:	No

14. TRANSPORTATION INFORMATION, cont'd

PACKAGING:

GENERAL DESCRIPTION: 1 gallon containers

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.

SARA TITLE III DATA

Section 311 & 312 Hazard Categories:

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

Section 302 Extremely Hazardous Substances: None

Section 313 Toxic Chemicals: Naphthalene (CAS No. 91-20-3)

CERCLA Reportable Quantities (RQ): Naphthalene (CAS No. 91-20-3) - 100 lbs;
Product - 2000 lbs.

STATE REGULATIONS:

CALIFORNIA (Proposition 65): This product contains trace amounts of a chemical known to the state of California to be carcinogenic - Naphthalene.

16. OTHER INFORMATION

MSDS STATUS:

Date This Revision: 25 November, 2008

Date Previous Revision: 16 March, 2006

Person Responsible for Preparation: Gary A. Braden

REASONS FOR REVISION: Changes have been made throughout the msds to reflect current knowledge about the current product.

16. OTHER INFORMATION, cont'd

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.

ABBREVIATIONS:

ACGIH	-	American Conference of Governmental Industrial Hygienists
CERCLA	-	Comprehensive Environmental Response, Compensation, and Liability Act
DOT	-	Department of Transportation
EPA	-	Environmental Protection Agency
FIFRA	-	Federal Insecticide, Fungicide, and Rodenticide Act
IARC	-	International Agency for Research on Cancer
IATA	-	International Air Transport Association
IMDG	-	International Maritime Dangerous Goods
NTP	-	National Toxicology Program
OSHA	-	Occupational Safety and Health Administration
SARA	-	Superfund Amendments and Reauthorization Act
TSCA	-	Toxic Substances Control Act

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