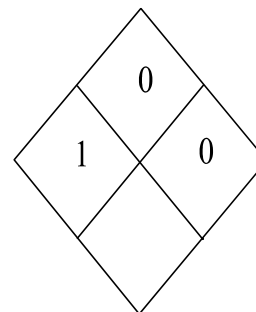


## MATERIAL SAFETY DATA SHEET

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** ALCO® OLIVE STOP™  
**GENERAL USE:** Plant Growth Regulator  
**PRODUCT DESCRIPTION:** Colorless to light amber liquid, with a slight ammonia odor  
**EPA Registration Number:** 5481-66  
**MSDS No.:** 156\_8  
**Current Revision Date:** 13 March, 2007



**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.
1-Naphthaleneacetic acid, Ammonium Salt	5.68%	25545-89-5
Inert Ingredients (includes small amount of ammonia)	94.32%	7664-41-7

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

COMPONENT	HAZARD	OSHA PEL*	ACGIH TLV*	NIOSH PEL*
Ammonia	Inhalation, skin & eye Irritant	50 ppm	25 ppm	25 ppm

\* Exposure Limits 8 hrs. TWA

ALCO is a registered trademark of AMVAC Chemical Corporation.  
Olive Stop is a trademark of AMVAC Chemical Corporation.

### 3. HAZARDS IDENTIFICATION

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#### EMERGENCY OVERVIEW:

**THIS PRODUCT is not a significant, immediate concern for emergency response personnel. There is a chance of eye irritation upon contact. As with any chemical, ingestion, skin contact, and inhalation of mists should be monitored for overexposure symptoms.**

**This product should be kept out of bodies of water.**

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#### POTENTIAL HEALTH EFFECTS

**ROUTE(S) OF ENTRY:** This product may be contacted by inhalation, skin contact, eye contact, and ingestion.

**SIGNS OF ACUTE OVEREXPOSURE:** Acute overexposure to this product may irritate the skin, eyes, and mucous membranes. Ingestion may cause inebriation, headache, nausea, vomiting, and abdominal pains.

**SIGNS OF CHRONIC OVEREXPOSURE:** None known.

**CARCINOGENICITY:** No evidence of carcinogenicity was seen in laboratory animals when tested with either Technical 1-Naphthaleneacetic Acid Sodium Salt (1-NAA.Na) or Technical 1-Naphthaleneacetamide (1-NAD).

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** Preexisting skin or respiratory disorders may be aggravated by exposure to components of this product.

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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 immediately. If there will be a delay in getting medical attention, rinse the eyes for at least another 15 minutes.

**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:** Immediately dilute the swallowed product by giving large quantities of water. Induce vomiting by using Syrup of Ipecac according to bottle directions, or, if necessary, by touching the back of the throat with a finger. Never give anything by mouth to an unconscious or convulsing 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 develops, contact a physician immediately.

**NOTE TO PHYSICIANS:** Treat symptomatically. This product contains small amounts of ammonia, so caustic burns may result. Contact your local, state, or Federal poison control center for additional information.

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**5. FIRE FIGHTING MEASURES**

**FLAMMABLE PROPERTIES**

Flash Point: Not applicable

Autoignition Temperature: Not applicable

Flammable Limits:

Lower flammable limit: Not applicable

Upper flammable limit: Not applicable

**EXPLOSIVITY**

Mechanical Impact: Not explosive

Static Discharge: Has not been tested, but should not occur.

**HAZARDOUS COMBUSTION PRODUCTS:** May emit hazardous fumes of ammonia when heated excessively. Wear self-contained breathing apparatus.

**EXTINGUISHING MEDIA:** Nonflammable. Base decision on surrounding materials in fire.

**FIRE FIGHTING INSTRUCTIONS:** Stay upwind or wear full firefighting gear when this product is exposed to high heat. Ammonia fumes and unknown mists and fumes may result.

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**6. ACCIDENTAL RELEASE MEASURES**

**GENERAL:** Use adequate ventilation and appropriate personal protective equipment (See Section 8) in order to prevent skin, respiratory, and eye contact. Keep bystanders upwind and away from the spill.

**SMALL SPILL:** Cover with absorbent (clay, sawdust, straw, kitty litter, etc.), to absorb the liquid. Sweep into an open drum. Close the drum and dispose of properly.

**LARGE SPILL:** Dike the spill to prevent contamination of local water sources. Siphon the majority of the liquid into drums for use or disposal, depending on the circumstances. Clean the area as described for a small spill.

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## 7. HANDLING AND STORAGE

**HANDLING:** Avoid contact with the skin and eyes. Keep this product away from food and drink. Keep it away from children and pets. Do not cross-contaminate this product with pesticides.

**STORAGE:** Store the product in its original container in a cool (not in direct sunlight), dry, locked place out of reach of children. Do not allow product to freeze.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**ENGINEERING CONTROLS:** Ventilation should be provided to keep exposures below the limits for ammonia.

**RESPIRATORY PROTECTION:** A properly FIT-TESTED NIOSH/MSHA approved respirator fitted with ammonia vapor cartridges may be required when working with this product if there is insufficient ventilation to keep exposures below the exposure limits.

**SKIN PROTECTION:** The minimum protective clothing required is full-body covering clothing, such as slacks and long-sleeved shirt or coveralls, shoes or boots, and gloves. Certain states may require further protection. Your State Department of Agriculture should be consulted for the most current requirements.

**EYE PROTECTION:** Safety glasses are required whenever a person is working with chemicals. Safety goggles should be worn if there is a chance of exposure to ammonia fumes and mists.

**OTHER PROTECTION:** An eyewash station and a safety shower should be located in the work area.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>PHYSICAL STATE:</b>	Liquid
<b>APPEARANCE:</b>	Colorless to light amber
<b>ODOR:</b>	Slight ammonia odor
<b>ODOR THRESHOLD:</b>	Not applicable
<b>BOILING POINT:</b>	101 °C/214 °F
<b>FREEZING/MELTING POINT:</b>	-1 °C/30 °F
<b>SPECIFIC GRAVITY:</b>	1.016 g/cm <sup>3</sup> @ 20 °C/4 °C
<b>BULK DENSITY:</b>	8.48 lb/gal
<b>VAPOR PRESSURE :</b>	17 mm/Hg @ 20 °C
<b>VAPOR DENSITY:</b>	Lighter than air
<b>PERCENT VOLATILE BY VOL:</b>	94.32%
<b>SOLUBILITY IN WATER:</b>	Miscible
<b>SOLUBILITY (other):</b>	Soluble in alcohols
<b>PARTITION COEFFICIENT (O/W):</b>	Not available
<b>pH (as is):</b>	9 - 10
<b>EVAPORATION RATE:</b>	1.0 as compared to water

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## 10. STABILITY AND REACTIVITY

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

**INCOMPATIBILITY:** Addition of acids to the product will cause the Naphthaleneacetic acid to precipitate from the solution. Addition of base will cause ammonia to be released.

**HAZARDOUS DECOMPOSITION PRODUCTS:** When the product is heated to decomposition, acrid smoke and fumes may be given off.

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

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## 11. TOXICOLOGICAL INFORMATION

This formulation has not been tested. The following information is available for K-Salt Fruit Fix 800, a similar but more concentrated product, and for the free acid, 1-NAA, or its Sodium salt, 1-NAA.Na.

<b>INGESTION:</b>	Oral LD <sub>50</sub> (rat):	>5050 mg/kg(male)/4400 mg/kg(female)*
<b>INHALATION:</b>	Inhalation LC <sub>50</sub> (rat):	> 1.62 mg/L (aerosol)*
<b>DERMAL:</b>	Skin LD <sub>50</sub> (rabbit):	> 2020 mg/kg*
<b>IRRITATION:</b>	Eye irritation:	Moderately irritating. (Toxicity Category II.)*
	Skin irritation:	Minimally irritating (Toxicity Category IV)*
<b>SENSITIZATION:</b>	Sensitizer (1-NAA Acid):	Not a skin sensitizer

**TERATOGENICITY:** Developmental studies carried out with Technical 1-Naphthaleneacetic Acid Sodium Salt have shown some developmental effects in the foetus, but only at maternally toxic dose levels, in both the rat and the rabbit.

**MUTAGENICITY:** No evidence of mutagenicity in laboratory testing of the free acid, 1-NAA.

**CARCINOGENICITY:** Testing with the Technicals of 1-Naphthaleneacetic Acid Sodium Salt, 1-Naphthaleneacetic Acid, and 1-Naphthaleneacetamide have shown no evidence of carcinogenicity in laboratory animals.

**REPRODUCTIVE TOXICITY:** No evidence of reproductive toxicity has been observed with the sodium salt, 1-NAA.Na. At the highest dose tested there was some evidence of parental toxicity with accompanying associated effects on offspring survival and growth.

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

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\* This data is for K-Salt Fruit Fix 800.

## 12. ECOLOGICAL INFORMATION

**GENERAL:** This product is a plant growth inhibitor. Keep out of all water supplies.

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**13. DISPOSAL CONSIDERATIONS**

**WASTE DISPOSAL:** If wastes from this product cannot be disposed by use according to label instructions, they should be disposed as a hazardous waste at a regulated disposal facility. Contact your nearest State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA regional office for guidance. Open dumping is prohibited.

**CONTAINER DISPOSAL:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose in a sanitary landfill, or incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke. Contact your nearest State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA regional office for guidance. Open dumping is prohibited.

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**14. TRANSPORTATION INFORMATION**

<b>DOT CLASS:</b>	Not regulated
<b>UN NUMBER:</b>	Not regulated
<b>IMDG CLASS (sea):</b>	Not regulated
<b>IATA CLASS (air):</b>	Not regulated
<b>MARINE POLLUTANT:</b>	Not regulated
<b>PACKING GROUP:</b>	Not regulated
<b>HAZARD LABEL(s):</b>	None
<b>ADR CLASS (road):</b>	Not regulated
<b>PROPER SHIPPING NAME(s):</b>	Not regulated
<b>REPORTABLE QUANTITY:</b>	None

**PACKAGING**

**GENERAL DESCRIPTION:** 1 gallon, 1 quart, 1 pint, & 8 oz. 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.

**SARA TITLE III DATA**

**Section 311 & 312 Hazard Categories:**

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

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

**Section 302 Extremely Hazardous Substances:** Ammonia (CAS No. 7664-41-7)

TPQ 500 lbs (Product contains < 0.1% ammonia)

**Section 313 Toxic Chemicals:** Ammonia (CAS No. 7664-41-7)

**CERCLA Reportable Quantity (RQ):** Ammonia - 100 lbs (Product contains < 0.1% ammonia)

**STATE REGULATIONS:**

**CALIFORNIA (Proposition 65):** None

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**16. OTHER INFORMATION**

**MSDS Status:**

**Date This Revision:** 13 March, 2007

**Date Previous Revision:** 7 June, 2004

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

**Reasons for Revision:** Changes were made in sections 3 and 11 to reflect current knowledge of the toxicological properties of this product.

**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.

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**ABBREVIATIONS:**

ACGIH	-	American Conference of Governmental Industrial Hygienists
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
IMDG	-	International Maritime Dangerous Goods
IATA	-	International Air Transport Association
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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