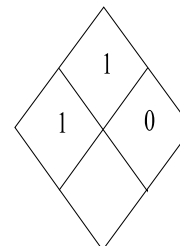


MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION



PRODUCT NAME: FRUITONE® N
CHEMICAL NAME (a.i.): 2-(1-Naphthyl)acetic acid, Sodium salt
SYNONYMS (a.i.): 1-Naphthaleneacetic acid, sodium salt; NAANA
GENERAL USE: Thinning Apples and Pears
PRODUCT DESCRIPTION: White flowable powder
CAS NUMBER (a.i.): 61-31-4
MOLECULAR FORMULA (a.i.): C₁₂H₉O₂Na
MOLECULAR WEIGHT (a.i.): 208.19
EPA REGISTRATION NUMBER: 5481-427
HEALTH CANADA REGISTRATION NUMBER.: 14630
MSDS NUMBER.: 215_12
CURRENT REVISION DATE: 5 FEBRUARY 2013

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

EMERGENCY TELEPHONE NUMBERS:
PRODUCT USE: 888-462-6822
TRANSPORTATION (24 HOURS)
CHEMTREC: 800-424-9300
OTHER (24 HOURS)
MEDICAL: 888-681-4261

2. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT	WT %	CAS No.
1-Naphthaleneacetic acid, Sodium salt	3.5%	61-31-4
Other Ingredients	96.5%	

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)

COMPONENT	HAZARD	OSHA PEL*	ACGIH TLV*
Nuisance dust (Inhalable)	Respiration hazard	15 mg/m ³ (total)	10 mg/m ³

* Exposure Limits 8 hrs. TWA

FRUITONE is a registered trademark of AMVAC Chemical Corporation

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

CAUTION! Irritating to respiratory tract. Avoid contact with eyes.

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.

POTENTIAL HEALTH EFFECTS

ROUTE(S) OF ENTRY: Inhalation, eye and skin contact, ingestion.

SIGNS OF ACUTE OVEREXPOSURE: Skin, eye, and mucous membrane irritation. May cause central nervous system depression. Symptoms include giddiness, headache, dizziness and nausea; in extreme cases unconsciousness and death may occur.

SIGNS OF CHRONIC OVEREXPOSURE: Same as for acute exposure.

CARCINOGENICITY: The sodium salt of Naphthaleneacetic acid (NAA.Na), has shown no evidence of carcinogenicity when tested in the rat or mouse.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Skin irritation may be aggravated in persons with existing skin lesions. Breathing of dust may aggravate acute and chronic asthma and other chronic pulmonary diseases.

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 is any sign of irritation or other problems.

INHALATION: Remove victim to fresh air. If breathing has ceased, call 911 or an ambulance. Clear the victim's airway and start mouth-to-mouth artificial respiration. If breathing is difficult, give oxygen. Contact a physician immediately if the victim requires any first aid other than removal to fresh air.

INGESTION: Immediately dilute the swallowed product by giving large quantities of water or milk. Induce vomiting by giving Syrup of Ipecac according to the directions on the bottle or by touching the back of the tongue with a finger. Never give anything by mouth to an unconscious person. Contact a physician immediately.

4. FIRST AID MEASURES, cont'd

SKIN: Remove contaminated clothing. Immediately flush all affected areas with large amounts of clear water for at least 15 minutes. 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. For more information, contact your local Poison Control Center.

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: Excessive dusts are potentially explosive

Static Discharge: Excessive dusts are potentially explosive. Good housekeeping to prevent accumulation of dust and the generation of dust clouds is the best prevention.

HAZARDOUS COMBUSTION PRODUCTS: Combustion products may include carbon oxides, nitrogen 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 face piece 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: Wear all personal protective equipment (See Section 8). Don't breathe dusts. Take care not to raise a dust cloud during cleanup. Extinguish all open flames. Use sparkproof equipment. Keep spectators upwind from spill.

6. ACCIDENTAL RELEASE MEASURES, cont'd

SMALL SPILL: Carefully scoop up or vacuum the spilled product into containers for reuse or disposal as a hazardous waste. Clean residual solids by scrubbing with soap and water. Cleanup materials should also be taken up as hazardous waste.

LARGE SPILL: Same as for a small spill.

7. HANDLING AND STORAGE

HANDLING: Prevent inhalation of dust by working with adequate ventilation. Prevent contact by wearing appropriate Personal Protective Equipment (PPE, Section 8 below). Wash thoroughly after handling. Enforce "No Smoking Rules". Use explosion-proof motors and electrical gear.

STORAGE: Store in the original container in a cool, dry, ventilated area. Protect against physical damage. Keep separate from fertilizers, seeds, insecticides or fungicides. Keep away from children and pets. Keep away from open flames and non-explosion proof motors and electrical gear.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: A system of local and/or general exhaust is recommended to keep exposures to dusts below the recommended TLV's.

RESPIRATORY PROTECTION: A MSHA/NIOSH-approved respirator fitted with organic vapor cartridges and dust covers or approved dust masks are required if the dust 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, waterproof gloves and shoes plus socks.

EYE PROTECTION: Safety glasses are required whenever a person is working with hazardous chemicals. Goggles should be worn when there is a chance of dust being generated. An eyewash bath should be available in case of dust exposure to the eyes.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	Solid
APPEARANCE:	White to tan powder
ODOR:	Dusty odor
ODOR THRESHOLD:	Not established
BOILING POINT:	Not applicable
FREEZING/MELTING POINT:	Not determined

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

BULK DENSITY:	15.50 lb/ft ³
VAPOR PRESSURE (mm/Hg):	Not applicable
VAPOR DENSITY:	Not applicable
PERCENT VOLATILE BY VOL:	Not applicable
SOLUBILITY IN WATER:	Disperses
SOLUBILITY (Other):	Soluble in alcohol
PARTITION COEFFICIENT (O/W):	Not determined
pH (as 5% slurry):	8 - 9
EVAPORATION RATE:	Not applicable

10. **STABILITY AND REACTIVITY**

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

INCOMPATIBILITY: Avoid strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Burning may cause the formation of carbon oxides, sulfur oxides, nitrogen oxides and unknown fumes and vapors.

HAZARDOUS POLYMERIZATION: This product will not polymerize.

11. **TOXICOLOGICAL INFORMATION**

GENERAL: Since limited information is available for this formulation (f), information on technical 1-NAA.Na and 1-NAA are included to assist in evaluating the hazards of this product.

INGESTION:	Oral LD ₅₀ (rat):	> 5050 mg/kg (f)
INHALATION:	Inhalation LC ₅₀ (rat):	> 1.62 mg/l (f)
DERMAL:	Skin LD ₅₀ (rabbit):	> 2020 mg/kg (f)
IRRITATION:	Eye irritation (rabbit):	Non irritant (1-NAA.Na)
	Skin irritation (rabbit):	No evidence of irritation (1-NAA.Na)
SENSITIZATION:	Skin sensitization:	No evidence of sensitization potential (f) (LLNA)

TERATOGENICITY: Developmental effects on the fetus were only seen at maternally toxic dose levels in the rat and rabbit (1-NAA.Na).

MUTAGENICITY: No evidence of mutagenicity in laboratory testing (1-NAA.Na).

CARCINOGENICITY: No evidence of carcinogenicity when tested in the rat or mouse (1-NAA.Na)

REPRODUCTIVE TOXICITY: No evidence of reproductive toxicity has been observed (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.

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. 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. Check with the appropriate Federal, State and local authorities to determine the current regulations for your area.

14. TRANSPORTATION INFORMATION

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

PACKAGING

GENERAL DESCRIPTION: 1¼ lb cans

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.

CANADIAN REGULATIONS: This product is registered under the Pest Control Product Act (PCPA) of Canada. It is a violation of Canadian Law to use this product in any manner inconsistent with its labeling. Read and follow all label directions. This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

15. REGULATORY INFORMATION

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

Section 302 Extremely Hazardous Substances: None

Section 313 Toxic Chemicals: None

CERCLA Reportable Quantities (RQ): None

STATE REGULATIONS:

CALIFORNIA (Proposition 65): None

16. OTHER INFORMATION

MSDS STATUS:

Date This Revision: 5 February, 2013

Date Previous Revision: 3 May, 2010

Person Responsible for Preparation: Gary A. Braden

REASONS FOR REVISION: Annual Review. Changes were made in section 11 to reflect the results of toxicological testing on the formulation. In addition, emergency telephone numbers were updated in section 1.

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
EPA	-	Environmental Protection Agency
FIFRA	-	Federal Insecticide, Fungicide, and Rodenticide Act
IARC	-	International Agency for Research on Cancer
NTP	-	National Toxicology Program
SARA	-	Superfund Amendments and Reauthorization Act
TSCA	-	Toxic Substances Control Act
DOT	-	Department of Transportation (USA)
IMDG	-	International Maritime Dangerous Goods
IATA	-	International Air Transport Association
