

MATERIAL SAFETY DATA SHEET

AGRILIANCE, LLC

PRODUCT NAME(S)For Emergency Call: 800-228-5635 or
Chem Trec: 800-424-9300**Bracket™ 90 WSP**

Effective Date: 01/27/99

I. IDENTIFICATION

CHEMICAL NAME OF PRIMARY COMPONENT(S): O,S dimethyl acetylphosphoramidothioate**FORMULA:** C₄H₁₀NO₃PS**MOLECULAR WEIGHT:** 183.2**SYNONYMS:** Acephate**CAS # & NAME:** 30560-19-1 Acephate**EPA Reg No.** 51036-238-9779

II. INGREDIENTS/SUMMARY OF HAZARDS

INGREDIENT(S)	CAS NUMBER	OSHA HAZARD (H) NON-HAZARD (NH)	PERCENT
Acephate	30560-19-1	H	90.0
Formulation aids		NH	10.0

	NFPA ^{1/}	HMIS ^{2/}
HEALTH	2	2
FIRE	0	0
REACTIVITY	0	0

1/ National Fire Protection Association Rating

2/ Hazardous Materials Identification System

(4 = Extreme/Severe 3 = High/Serious 2 = Moderate 1 = Slight 0 = Minimum)

SARA TITLE III HAZARD CLASSIFICATION

IMMEDIATE (ACUTE) HEALTH	Yes
DELAYED (CHRONIC) HEALTH	No
FIRE	No
SUDDEN RELEASE OF PRESSURE	No
REACTIVE	No

III. PHYSICAL DATA

DENSITY: 25 – 30 pounds/ft³
BOILING POINT: Not applicable
FREEZING POINT: Not applicable
VAPOR PRESSURE: Not determined
VAPOR DENSITY: Not determined
SOLUBILITY IN WATER: 750 grams/liter @ 20° C
APPEARANCE: Fine white powder
ODOR: Strong and pungent, like rotton cabbage

IV. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: Non combustible
FLAMMABLE LIMITS IN AIR: Not determined
AUTOIGNITION TEMPERATURE: Not determined
EXTINGUISHING MEDIA: Use carbon dioxide or dry chemical for small fires and water fog or foam (alcohol, polymer or ordinary) for large fires.
SPECIAL FIRE FIGHTING PROCEDURES: Fire fighters should use self contained breathing apparatus and full turnout gear. Prevent runoff of fire water. Avoid exposure to smoke.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Products of combustion may be hazardous.

V. REACTIVITY DATA

STABILITY: Stable under normal conditions
CONDITIONS TO AVOID: Prolonged storage at elevated temperatures.
MATERIALS TO AVOID: Alkaline materials
HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of nitrogen, sulfur, phosphorus and carbon. Reaction with alkaline materials may cause the evolution of noxious gases.
HAZARDOUS POLYMERIZATION: Will not occur

VI. HEALTH HAZARD DATA/FIRST AID PROCEDURES**TOXICOLOGY DATA:**

Acute Oral LD₅₀ (rat): 1030 mg/kg
Acute Dermal LD₅₀ (rabbit): > 10,000 mg/kg
Acute Inhalation(4hr rat): > 60 mg/L
Eye Irritation (rabbit): Minimal irritation
Dermal Irritation (rabbit): Minimal irritation.
Dermal Sensitization: There are no indications that this product will cause dermal sensitization.

EXPOSURE LIMITS:

CHEMICAL NAME(S)	ACGIH (TLV)	OSHA (TWA)
Acephate	Not established	Not established

CARCINOGENICITY, TERATOGENICITY, MUTAGENICITY: Not listed as a carcinogen by NRC, IARC or OSHA. Weak evidence of mutagenicity was observed during in vitro tests on mice.

SIGNS OF POISONING: Nausea, vomiting, dizziness, headaches, weakness, pinpoint pupils, blurred vision, abdominal cramps, excessive salivation and nasal discharge.

PRIMARY ROUTES OF ENTRY: Ingestion

EFFECTS OF SINGLE OVEREXPOSURE:

Swallowing: Nausea, vomiting, dizziness, headaches, weakness, pinpoint pupils, blurred vision, abdominal cramps, excessive salivation and nasal discharge.

Skin Absorption: No information on systemic toxicity.

Inhalation: May be irritating. May cause nasal discharge, sore throat, coughing, bronchitis, pulmonary edema and difficulty in breathing.

Eye Contact: may cause eye irritation.

EFFECTS OF REPEATED OVEREXPOSURE: Prolonged or repeated overexposure may cause skin and/or eye irritation, nausea, vomiting, dizziness, headaches, weakness, pinpoint pupils, blurred vision, abdominal cramps, excessive salivation and nasal discharge.

OTHER EFFECTS OF OVEREXPOSURE: Repeated or prolonged low level exposures may cause sensitization to subsequent exposures that mimic acute exposures.

EXISTING MEDICAL CONDITIONS POSSIBLY AGGRAVATED BY EXPOSURE: Skin contact may aggravate preexisting skin conditions. Inhalation of mists may aggravate preexisting respiratory conditions. Prolonged exposure may aggravate pre-existing cholinesterase depression

EMERGENCY AND FIRST AID PROCEDURES:

Swallowing: Call physician or poison control center. If patient is alert and not convulsing give 1 - 2 glasses of water and induce vomiting by tickling the back of the throat or administering syrup of ipecac. Do not induce vomiting or give anything by mouth to an unconscious person.

Skin: Wash affected area with plenty of soap and water. Remove contaminated clothing. Launder contaminated clothing separately. Get medical attention if irritation develops and persists.

Inhalation: Remove victim to fresh air. If not breathing, administer artificial respiration. GET MEDICAL ATTENTION

Eyes: Hold eyelids open and flush with a steady stream of water for at least 15 minutes. GET MEDICAL ATTENTION.

NOTE TO PHYSICIAN:

Acephate is a cholinesterase inhibitor. If signs of cholinesterase inhibition appear then atropine is antidotal. 2-PAM may also be used in conjunction with atropine but should not be used alone.

VII. PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Dike the area using absorbent or materials such as sand or clay. Recover and contain as much product as possible using absorbent. Clean spill area using a solution of water and detergent. Collect and contain wash water and all contaminated absorbent for disposal. If spilled on the ground, the affected area should be excavated to a depth of 1 - 2 inches. Prevent the spilled product or washings from reaching public sewers or waterways. Wear appropriate protective equipment during the cleanup. Ensure that tools and equipment are adequately decontaminated.

WASTE DISPOSAL METHOD: Dispose of in accordance with federal, state and local regulations.

CONTAINER DISPOSAL: Dispose of in an approved facility according to federal, state and local regulations.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: store in a cool, dry, secure area away from sources of heat.

VIII. SPECIAL PROTECTION INFORMATION

PROTECTIVE EQUIPMENT SHOULD BE USED DURING THE FOLLOWING PROCEDURES:

- Manufacture or formulation of this product.
- Repair and maintenance of contaminated equipment.
- Clean up of leaks and spills.
- Any other activity that may result in hazardous exposures.
- Refer to product label for PPE required for labeled use.

RESPIRATORY PROTECTION: Use NIOSH/MSHA approved respirator for organic vapors when vapor concentrations are high. Use positive pressure self contained breathing apparatus for emergency conditions where exposure limits are exceeded.

VENTILATION: Local exhaust

PROTECTIVE CLOTHING: Chemical resistant gloves, coveralls, apron and foot coverings.

EYE PROTECTION: Safety glasses/goggles

USER SAFETY RECOMMENDATIONS: Safety showers and eye wash should be easily accessible.

IX. REGULATORY STATUS

TSCA INVENTORY STATUS:

TRANSPORTATION STATUS:

DOT INFORMATION: Not regulated

SARA TITLE III

Section 302-304 (40 CFR 350):

Extremely Hazardous Substance (EHS): Not listed

Section 312, Reporting (40 CFR 370):

SARA/OSHA Hazardous Chemical Reporting Quantity: 10,000 pounds

Section 313, Toxic Chemicals: Acephate

Reportable Quantity (RQ): Not listed

RCRA HAZARDOUS WASTE: Not listed

International Right-To-Know Regulations:

X. REFERENCES

- 1) Supplier sponsored studies.

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