

Acephate -MATERIAL SAFETY DATA SHEET

Manufacturer/information service:

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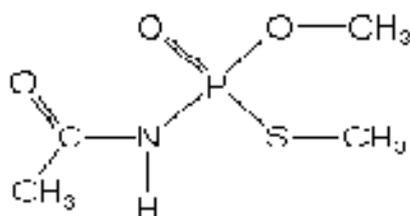
1. Chemical Product Identification

Product Name: Acephate

Molecular Formula: C₄H₁₀NO₃PS

Molecular Weight: 183.18

Structural Formula:



Chemical Name: O, S-dimethyl acetylphos-phoramidothioate

Form: Solid

Color: Colorless to white

Odor: Strong mercaptan odor

CAS No.: 30560-19-1

2. Composition / Information On Ingredients

Composition	CAS No.	Content %
Acephate	30560-19-1	98.0
Other ingredients		2.0

3. Hazards Identification

CAUTION: Causes eye irritation; Harmful if swallowed; Avoid breathing dust or spray mist; Avoid contact with eyes, skin or clothing; Keep out reach of children.

4. First Aid Measures

Inhalation: Remove victim to fresh air. Seek medical assistance if discomfort or irritation develops.

Eyes: Flush eyes immediately with water for 10-15 minutes while holding eyelids open. Seek medical assistance if discomfort or irritation continues.

Skin: Remove contaminated clothing. Bathe and shampoo with soap and water to remove chemical from skin and hair. Obtain medical treatment if irritation persists.

Ingestion: Drink 1 or 2 glasses of water and induce vomiting by touching the back of the throat with finger. If possible, contact a physician, Poison Control Center, or emergency center before inducing vomiting. Do not induce vomiting or give anything by mouth to an unconscious person. Take person and product container to the nearest emergency treatment center.

5. Fire-Fighting Measures

Extinguishing Media: Foam, CO₂, dry chemical, water

Fire Fighting Procedures: Avoid breathing smoke or mists. Minimize amount of water used to prevent environmental damage from excessive water run-off. Do not enter any enclosed area without full protective equipment, including SCBA. Decontaminate personal protective equipment and fire fighting equipment before reuse.

Unusual Fire and Explosion Hazards: Combustion forms carbon dioxide, water vapor and oxides of sulfur, nitrogen and phosphorous.

6. Accidental Release Measures

Stability: Stable under normal storage conditions.

Incompatibility (Materials to Avoid): Alkaline materials

Hazardous Decomposition Products: Contact with alkaline materials including hypochlorite oxidants, may produce noxious gasses.

Hazardous Polymerization: Will not occur.

7. Handling And Storage

Keep pesticide in original container. Do not store or transport near food or feed. Do not contaminate food or feed. Do not put concentrate into food or drink containers. Do not dilute concentrate in food or drink containers. Store in a cool, dry place, out of direct sunlight.

8. Exposure Controls/Personal Protection

Respiratory Protection: If exposure limits may be exceeded, wear a NIOSH/MSHA approved respirator for particulates, (TC-21C) or an organic cartridge respirator (TC-23C)

Protective Clothing: Long-sleeved shirt and long pants, chemical resistant gloves.

Eye Protection: Safety glasses with side shields, goggles, or face shield are recommended

9. Physical and Chemical Properties

Water Solubility: readily soluble in water (79 g/100 ml at 20degrees C). 650 g/l at 20 degrees C

Solubility in Other Solvents: In acetone 15.1, ethyl acetate 3.5, benzene 1.6, hexane 0.01 (all in g/100 ml at 20degrees C) ethanol < 50 g/l at 20 degrees C

Melting Point: 93 degrees C (198-199 degrees F), technical grade acephate (purity 80 - 90%) is 82 - 89 degrees C, 72 - 80 degrees C, 64 - 68 degrees C for impure

Vapor Pressure: 2.3×10^{-6} mbar at 24 degrees C, 0.226 mPa (24 degrees C), 1.7×10^{-6} mmHg at 24 degrees C

Partition Coefficient: -1.87

Adsorption Coefficient: 0.48

10. Stability and Reactivity

Chemical Stability: Stable at normal ambient temperatures. Acephate can degrade on prolonged exposure to elevated temperatures or at alkaline pH.

Incompatibility: Avoid contact with alkaline materials.

Hazardous: Contact with alkaline materials including hypochlorite oxidants may produce.

Decomposition Products: noxious gases.

11. Toxicological Information

ACUTE: This product contains Acephate, a cholinesterase inhibitor. Acute overexposures by oral, dermal or inhalation routes may produce signs and symptoms of toxicity, usually within several hours of exposure, including but not limited to headaches, dizziness, weakness, constriction of the pupil, blurred or dark vision, excessive salivation or nasal discharge, profuse sweating, abdominal cramps, nausea, diarrhea and vomiting. Severe poisonings may result in incontinence, unconsciousness, convulsions and death.

Eye Irritation: Minimal effects clearing within 24 hours

Skin Irritation: Non-irritating (Toxicity Category IV).

Dermal Toxicity: The dermal LD₅₀ in rabbits is > 2 g/kg

Oral Toxicity: The oral LD₅₀ in male rats is 688 mg/kg. The oral LD₅₀ in female rats is 1127 mg/kg. The LD₅₀ for the combined sexes is 846 mg/kg (Toxicity Category III).

Inhalation Toxicity: The 4-hour LC₅₀ in rats is > 2.13 mg/l (Toxicity Category IV). Exposure to high concentrations of dust in the air may result in respiratory irritation.

12. Ecological and Ecotoxicological Information

Avian Toxicity: Acephate Technical is moderately toxic to birds.

Oral LD₅₀ Mallard Duck: 350 mg/kg

Oral LD₅₀ Pheasant: 140 mg/kg

Oral LD₅₀ Chickens: 852 mg/kg

13. Disposal Considerations

Disposal Methods: Check governmental regulations and local authorities for approved disposal of this material. Dispose in accordance with applicable laws and regulations.

14. Transport Information

Not applicable.

15. Regulatory Information

Not applicable.

16. Other Information

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the product as such. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear. It is the responsibility of persons on receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produce formulations containing this product, it is the recipients sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.