



MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name : Acephate Technical
CAS No : 30560-19-1
Use : Insecticide
Company Info : M/s HPM Chemicals & Fertilizers Ltd
209-210, Anupam Bhawan, Commercial Complex
Azadpur, Delhi-110033
Telephone : (011)-45071800, 899
Fax : (011)- 27681800
Website : www.hpmindia.com
E-mail : info@hpmindia.com

2. COMPOSITION/INFORMATION ON INGREDIENTS

Composition	Concentration
Acephate a.i.	97.00% min.
Other associates impurities	03.00% max

3. HAZARDS IDENTIFICATION OF PREPARATION

EMERGENCY OVERVIEW:

CAUTION: ACEPHATE is a Cholinesterase Inhibitor. Harmful if swallowed or absorbed through the skin. Avoid inhaling dust. Avoid contact with eyes, skin and clothing. Do not contaminate feed or foodstuffs.

KEEP OUT OF REACH OF CHILDREN.

POTENTIAL HEALTH EFFECTS

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

SIGNS OF ACUTE OVEREXPOSURE: This product contains a cholinesterase inhibitor. Acute cholinesterase depression may be evidenced by headache, nausea, vomiting, diarrhea, abdominal cramps, excessive sweating, salivation and tearing, constricted pupils, blurred vision, tightness in chest, weakness, muscle twitching and confusion; in extreme cases, unconsciousness, convulsions, severe respiratory depression and death may occur. In addition, acute eye and skin contact symptoms may include redness and possibly some minor swelling.

SIGNS OF CHRONIC OVEREXPOSURE: Repeated exposures to small doses of Acephate and other organophosphates may lower the cholinesterase to levels where the above symptoms of acute overexposure are observed.

CARCINOGENICITY: High doses of Acephate Technical have produced cancer in mice but there is no evidence that Acephate Technical causes cancer in humans. EPA has classified acephate as a Group C (possible) human carcinogen, but the National Toxicology Program (NTP), the International Agency for Research on Cancer (IARC) and the Occupational



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Safety and Health Administration (OSHA) do not give Acephate a cancer listing.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Preexisting conditions which lower cholinesterase levels increase vulnerability to cholinesterase depression. These include: (for plasma) genetic cholinesterase deficiency; advanced liver disease; chronic alcoholism; malnutrition; dermatomyositis; existing toxicity from exposure to carbon disulfide; benzalkonium salts, organic mercury compounds, ciguatoxins or solanines; and (for RBC) hemolytic anemias. .

4. FIRST AID MEASURES

- Skin Contact** : Remove contaminated clothing and shoes immediately. Wash contaminated area with soap or mild detergent and large amount of water until no effects of chemical remains. If symptoms persists get medical help.
- Eye Contact** : Irrigate the eyes with large amount water or normal saline occasionally lifting upper and lower lids until no evidence of chemical remains and obtain a medical help.
- Ingestion** : Remove by gastric lavage and catharsis, maintain blood pressure and airway, Give oxygen if respiration is depressed. Do not perform gastric lavage if victim is victim is unconscious. Get medical attention immediately.
- Inhalation** : Remove the patient from the exposure area to fresh air immediately. If breathing has stopped perform the artificial respiration. Keep person warm and rest. Get medical attention immediately.

5. ACCIDENTAL RELEASE

- Personal Preparation** : Avoid contact with skin, eyes and clothing.
- Environmental Precautions** : Prevent contamination of soil, drains and surface water.
- Method of cleaning** : Absorb the material in the sand, soil, diatomaceous earth or suitable absorbent. Place in suitable material and remove to safe place or dispose of in an incinerator approved for chemicals.

6. FIRE-FIGHTING MEASURES

- Suitable Extinguishing Media** : Dry chemical, CO₂, Water spray, standard foam. For larger fire, use water spray, fog or standard foam.



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- Exposure Hazards** : During a fire, irritating and possibly toxic gases like carbon dioxide; carbon monoxide; nitrogen oxides; sulfur dioxide; hydrogen chloride; may be generated by thermal decomposition or combustion
- Fire-Fighting** : Use dry chemical, foam or CO₂ extinguishing media. Wear full protective clothing and self-contained breathing apparatus. Evacuate non essential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect runoff.

7. HANDLING AND STORAGE

- Handling** : Use appropriate (impervious) clothing, gloves and closed foot ware to prevent the repeated contact with skin. Use flash proof and dust resistant goggles to prevent the contact with eyes.
- Storage** : Keep the product in original container tightly closed and correctly labeled. Store in suitable, cool, dry, well ventilated place under lock and key; away from the reach of the children, animals, food and animal feeding stuffs. Store away from the incompatible substances and source of ignition

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- Technical protective measures** : None
- Exposure controls limits** : Not Established
- Respiratory protection** : Wear suitable mask
- Hand protection** : Wear impervious gloves
- Eye protection** : Wear flash proof and dust resistant goggles.
- Skin protection** : Wear impervious clothing and closed foot ware.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Solid
APPEARANCE: White powder
ODOR: Strong cabbage-like odor
ODOR THRESHOLD: Not established
BOILING POINT: Not applicable



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FREEZING/MELTING POINT: 86.9 - 91.0°C (188.4 - 195.8°F) - Decomposes

SPECIFIC GRAVITY: 1.35

BULK DENSITY: 26-30 lbs/ft³

VAPOR PRESSURE (mm/Hg): 1.7 x 10⁻⁶ mm Hg @ 24°C (acephate)

PERCENT VOLATILE BY VOL: Not applicable

SOLUBILITY IN WATER: Soluble

SOLUBILITY (Other): Moderately soluble in alcohol and acetone; slightly soluble in aromatic solvents.

PARTITION COEFFICIENT (O/W): Not determined

pH(5% in water): Not determined

EVAPORATION RATE: Not applicable

10. STABILITY AND REACTIVITY

Thermal Stability	:	Stable to heat.
Conditions to avoid	:	Direct source of heat/open flames.
Material to avoid	:	Alkaline material
Hazardous Decomposition Products	:	During a fire, irritating and possibly toxic gases like carbon dioxide; carbon monoxide; nitrogen oxides; sulfur dioxide; hydrogen chloride; may be generated by thermal decomposition or combustion.

11. TOXICOLOGICAL INFORMATION

INGESTION: Oral LD₅₀ (rat): 1.4/1.0 g/kg(male/female) (Tox Cat III)

DERMAL: Skin LD₅₀ (rabbit): 10 g/kg (Tox Cat IV)

INHALATION: Inhalation LC₅₀ (rat): > 61.7 mg/l (4 hr) (Tox Cat IV)

IRRITATION: Eye irritation(rabbit): Slight Irritant (Tox Cat IV)

Skin irritation: Slight Irritant (Tox Cat IV)
(rabbit)

SENSITIZATION: Skin sensitization Not a sensitizer
(guinea pig)

TERATOGENICITY: Developmental studies in the rat and rabbit with Acephate Technical have established clear no effect levels for maternal and developmental toxicity.

MUTAGENICITY: Acephate Technical has been shown to have a weak potential to cause mutations when tested at high doses in microbes or cultured cells. However, the results of most *in vivo* assays indicate that Acephate Technical does not cause mutations in whole animals. Overall, acephate is not considered to be a mutagenic hazard.

CARCINOGENICITY: There was an increase in liver weight and liver carcinoma and adenoma observed in female mice fed diets containing the highest dose level of Acephate Technical throughout their entire lifetime. Male mice and rats showed no carcinogenic related changes at any dose level tested. EPA has classified Acephate as a Group C (possible human carcinogen).

REPRODUCTIVE TOXICITY: There is no evidence that Acephate Technical causes reproductive toxicity.

TOXICOLOGICALLY SYNERGISTIC PRODUCTS: No data available.



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12. ECOLOGICAL INFORMATION

GENERAL: This pesticide is toxic to fish and aquatic organisms. Do not contaminate water when disposing of equipment washwaters. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not apply directly adjacent to potable water supplies.

13. DISPOSAL CONSIDERATION

PESTICIDE 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. Further information can be obtained from the EPA or the equivalent state and local agencies.

CONTAINER DISPOSAL: Completely empty bag into application equipment. Check with EPA, State, and local authorities for the current regulations applicable to your area for disposal of waste containers.

14. TRANSPORT INFORMATION

D.O.T. SHIPPING NAME: Insecticide, dry, non-regulated

TECHNICAL SHIPPING NAME: Acephate 97%

RQ: NA

D.O.T. HAZARD CLASS: NA

U.N./N.A. NUMBER: NA

REMARKS: None

EXEMPTION REQUIREMENT: None

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: No

Reactive Hazard: No

Sudden Pressure Release Hazard: No

Section 302 Extremely Hazardous Substances: None

Section 313 Toxic Chemicals:

Acephate (30560-19-1) - 1.0% de minimis concentration

CERCLA/EPCRA Reportable Quantities (RQ): None

STATE REGULATIONS:

CALIFORNIA (Proposition 65): None

16. OTHER INFORMATION



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Incompatible with the alkaline material.

Antidote : No specific antidote is available. Treat the patient symptomatically and supportively.

This product should be stored, handled and used in accordance with good industrial practices and in conformity with legal regulation.

This information is based on present knowledge for your guidance on safety requirements. It is not intended as a specification.