

MATERIAL SAFETY DATA SHEET

PRODUCT : Acephate 75% SP

PRODUCT DESIGNATION : Insecticide

Section 1. Product & Company Identification

Common Name : Acephate 75% SP

Grade : Formulation

Active Ingredient : Acephate

Chemical Name of Active : O,S-Dimethyl acetylphosphoramidothioate2

Ingredient (IUPAC)

Chemical Family of A. I. : Organophosphate

Molecular Formula of A. I. : C₄H₁₀NO₃PS

Molecular Mass of A. I. : 183.2g /mol

Manufacturer & Supplier : M/s United Chemicals

Head Office: B-371, 1st Floor, Meera Bagh, New
Delhi, India

Factory: 15/1, 15/2, 15/3, industrial Area, Vidisha,
M.P

Telephone Number : +91-11-25258770

Section 2. Composition / Information on Ingredients

Acephate a. i. 75.00% w/w min.

Other Ingredients 25.00% w/w min.

Total 100.00% w/w

Section 3. Hazards Identification

CAUTION Harmful if swallowed

Causes eye irritation

Avoid breathing dust or spray mist

Avoid contact with eyes, skin or clothing

Keep out of reach of children

Potential Health Effects

Signs and Symptoms of Systemic Effects:

This product contains a cholinesterase inhibitor. Signs and symptoms that may be seen, usually within several hours of exposure, include but are 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.

Inhalation Based on an evaluation of the ingredients and/or similar products, this product is expected to be minimal toxic when inhaled. The degree of injury will depend on the amount of material inhaled and the speed and thoroughness of the first aid measure. The expected adverse systemic health effects are described above. Exposure to high concentrations of dust may result in respiratory irritation. Signs and symptoms may include, but not be limited to, nasal discharge, sore throat, coughing and difficulty in breathing.

Skin Contact This product is expected to cause brief and/or minor irritation. The degree of injury will depend on the amount and duration of contact and the speed and thoroughness of the first aid measure. The expected adverse health effects resulting from and exposure may include redness and possibly some minor swelling. This product is not expected to cause allergic skin reactions.

Eye Contact This product is expected to cause minimal or no eye irritation. The degree of injury will depend on the amount and duration of contact and the speed and thoroughness of the first aid treatment. The expected adverse health effects resulting from an exposure may include redness and possibly some minor swelling. Ingestion This product has been shown to be slightly toxic when ingested. The degree of injury will depend on the amount of material ingested and the speed and thoroughness of the first aid measure. The expected adverse systemic health effects are described above.

Carcinogen Status 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 based on the cancer produced in female mice. This product is not listed as a carcinogen by the national toxicology program (NTP), the International Agency for Research on Cancer (IARC), or the Occupational Safety and Health Administration (OSHA)

Section 4. First Aid Measures

Inhalation Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

Skin contact Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Eye contact Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Ingestion Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

Notes to physician Acephate is a cholinesterase inhibitor. Measurement of blood cholinesterase activity may be useful in monitoring exposure but decisions regarding treatment will usually need to be made before test results are available. If signs of cholinesterase inhibition appear, atropine sulfate is antidotal. 2-PAM (PROTOPAM) is also antidotal and may be used in conjunction with atropine but should not be used alone.

Section 5. Fire Fighting Measures

Fire and Explosion Hazards: There is no risk of an explosion from this product under normal circumstances if it is involved in a fire. Violent steam generation or eruption may occur upon application of direct water stream on hot liquids. This product, if scattered, may form flammable or explosive dust clouds in air. Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

Suitable extinguishing media Preferred extinguishing media are carbon dioxide, dry chemical, foam, water fog. Specific protective equipment for fire fighters When fighting fires involving significant quantities of this product, wear a splash suit complete with self contained breathing apparatus. Do not scatter spilled material with high pressure water jets.

Flash point: Not flammable.

Section 6. Accidental Release Measures

Environmental precautions

This pesticide is toxic to birds. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash waters. Exposed treated seed may be hazardous to birds and other wildlife. Dispose of all excess treated seed and seed packaging by burial away from bodies of water. This product and its degradation are highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.

Methods for cleaning up

Land spills or leaks:

Containment: Reduce airborne dust. Avoid runoff into storm sewers or other bodies of water. **Cleanup:** Cleanup spill immediately. Vacuum or sweep up material and place in a chemical waste container. Wash area with soap and water. Pick up wash liquid with additional absorbent and place in a chemical waste container.

For spills in water:

Containment: This material will disperse or dissolve in water. Stop the source of the release. Contain and isolate to prevent further contamination of the soil, surface water, or ground water.

Cleanup: Cleanup spill immediately. Absorb spill with inert material. Remove contaminated water for treatment or disposal.

Section 7. Handling & Storage

Handling: Keep exposure to this product to a minimum, and minimize the quantities kept in work areas. Check Section 8 of this MSDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimize risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

Storage: Make sure that containers of this product are kept tightly closed. Keep pesticide in original container. Store in a cool, dry place away from excessive heat. Do not put

concentrate or dilute into food or drink containers. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. Check packaging - there may be further storage instructions on the label.

Section 8. Exposure Control, Personal Protection

Use this material only in well ventilated areas. Unless ventilation is adequate to keep airborne concentrations below recommended exposure standards, approved respiratory protection should be worn.

Eye protection Do not get this material in your eyes. Eye contact can be avoided by wearing protective eyewear.

Skin protection Avoid contact with skin or clothing. Skin contact should be minimized by wearing protective clothing including gloves.

Hygiene measures Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Section 9. Physical and Chemical Properties

Appearance / state	:	White Powder
Odour	:	Sulfur like Odour
Melting Point	:	115-125°C
pH	:	4-5
Solubility (in water)	:	NA
Vapour Pressure	:	0.226mPa at 24°C (Based on Acephate Technical)
Flash Point	:	Not flammable

Section 10. Stability & Reactivity

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

Materials to avoid contact with alkaline materials. Decomposition Contact with alkaline materials including hypochlorite oxidants may produce noxious gases. Hazardous Polymerization will not occur.

Section 11. Toxicological Information

Oral LD50	: rat 1030 mg/kg.
Skin Contact, Dermal LD50	: rat >10,000mg/kg
Inhalation, (4 hr) LC50	: for rat >60mg/l.
Eye Irritation	: Minimal irritation
Skin Irritation	: Minimal irritation
Sensitization	: Non- Sensitizing (guinea pig)

Section 12. Ecological Information

Avian toxicity: Acephate Technical is moderately toxic to birds. Oral LD50 Mallard duck: 350 mg/kg Acephate Technical is practically non-toxic to freshwater fish. The 96-hours LC50 for Acephate Technical was found to be higher than 1,000 ppm in rainbow trout, bluegill, and channel catfish. The following LC50 values for Lancer 75 S soluble powder substantiate the low toxicity to fish: Bluegill: 2,050 ppm

Acephate Technical is highly toxic to bees. The acute LD50 for bees is 1.2 µg/bee.

Section 13. Disposal Consideration

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Do not reuse the outer bag. Dispose of outer bag in a sanitary landfill or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Section 14. Transport Information

IMDG Classification

Shipping name	: (Organophosphorous pesticide, solid, toxic)
Class	: 6.1

Packing group : III
UN number : 2783
Marine pollutant : Yes

Section 15. Regulatory Information

Regulations under FIFRA: All pesticides are governed under FIFRA (Federal Insecticide, Fungicide and Rodenticide Act). Therefore, the regulations presented below are pertinent only when handled outside of the normal use and applications of pesticides. This includes waste streams resulting from manufacturing/formulation facilities, spills or misuse of products, and storage of large quantities of products containing hazardous or extremely hazardous substances.

Section 16. Other Information

The information contained in this safety data sheet is given in good faith. It is accurate to our best of knowledge and belief and represents the most up to date information. The information given in this data sheet does not constitute or replace the users own assessment of work place risk as required by other health and safety legislation. United chemicals will not be liable for any claims or damages arising out of use of this information.

Safety Division : UNITED CHEMICALS, SAFETY DIVISION

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