



MATERIAL SAFETY DATA SHEET

ALPHACIDE[®]100EC

ASTRA INDUSTRIAL COMPLEX CO., LTD. (ASTRACHEM)
P.O. BOX 30447, AL-KHOBAR 31952
KINGDOM OF SAUDI ARABIA

1. PRODUCT IDENTIFICATION

Product Name: **ALPHACIDE[®] 100EC**

Chemical Class: Synthetic Pyrethroid Insecticide

Use: Alphacide100EC is an insecticide based on the synthetic pyrethroid alpha-Cypermethrin. It is used for the control of a wide range of chewing and sucking insects in various agricultural crops

Producer: **Astra Industrial Complex Co., Ltd.**
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2. COMPOSITION / INFORMATION ON INGREDIENTS

Substance	Proportions (% w/w)	Chemical structure
<p>Alpha-cypermethrin CAS No. 67375-30-8 Chemical Name: A racemate comprising (S)-α-cyano-3-phenoxybenzyl (1R,3R)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate and (R)-α-cyano-3-phenoxybenzyl (1S,3S)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate (IUPAC)</p>	<p>11.5 (100 g / L)</p>	<p>(S) (1R)-cis - (R) (1S)-cis -</p>
Blend of ionic and non ionic emulsifiers	6.6	
Organic solvents	81.9	



3. Hazard Identification

Signs of Poisoning:

Symptoms of acute exposure include severe headaches, fatigue, nausea and anorexia. Severe cases of direct contact cause blurred vision, tightness in chest and convulsions.

Primary Routes of Entry:

Skin contact and absorption and vapor mist inhalation.

Effects of single over exposures:

Ingestion:

Accidental or deliberate ingestion could cause neurological signs and symptoms such as ataxia and convulsions..

Skin Absorption:

May cause irritation, and facial skin sensations.

Inhalation:

May cause irritation to the respiratory system.

Eyes:

May cause eye irritation.

4. First Aid Measures

Emergency and First aid Procedures

Ingestion:

Call a physician or poison control center. If vomiting occurs keep the head lower than hips to prevent aspiration. Do not 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.

Inhalation:

Remove victim to fresh air. Begin artificial respiration if necessary. Avoid unprotected mouth to mouth resuscitation. GET MEDICAL ATTENTION.

Eye:

Flush with clean water for 15 minutes while holding the eyelid open.



Note to Physician:

There is no specific antidote. Treat symptomatically. If convulsions occur, diazepam (10 or 20 mg for an adult) should be given slowly, intravenously or rectally and repeated if necessary.

5. Fire Fighting Measures

Fire and Explosion:

Flash point >40°C
COMBUSTIBLE

Flammable limits in air:

Not determined.

Auto ignition Temperature:

Not determined.

Unusual fire and explosion hazards:

Noxious fumes may be emitted under fire conditions.

Special fire fighting procedures:

Extinguish fire with alcohol-resistant foam, carbon dioxide or powder. Fire fighters should use self-contained breathing apparatus.

6. Accidental Release Measures

Steps to be taken if material is released or spilled:

Dike the area using absorbent 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 washing 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 local regulations.

Container disposal:

Dispose of in an approved facility according to local regulations.



Spillage and disposal

Prevent product from entering drains. Damp and soak up with inert absorbent material and dispose as hazardous waste.

7. Handling And Storage

Avoid contact with eyes, skin or mouth. Do not eat, drink or smoke when handling. Avoid breathing spray mist. Keep product away from children and unauthorized persons. Wash hands and exposed skin with soap and water after use. Remove and thoroughly wash heavily contaminated clothing immediately, especially insides of gloves. Do not apply when conditions favor drift or where runoff is likely to occur. Keep out of lakes, streams, ponds, tidal marshes and estuaries.

Store the product in a cool dry spark free area. Do not store food or feed in storage area. Prevent eating, drinking or smoking in areas where there is a potential exposure to the product. Wash hands before eating, drinking or smoking after using the product.

8. Exposure Controls / Personnel Protection

Protective equipment should be used during the following procedures:

- Manufacture, formulation or application of this product.
- Repair and maintenance of contaminated equipment
- Clear up of leaks and spills.
- Any other activity that may result in hazardous exposures.

Protective Measures:

Use overall, boots, neoprene gloves, respirator and face-shield or goggles when handling Alphacide 100EC.

Respiratory Protection:

Use MSHA/NIOSH approved respirator for organic vapors. Use positive pressure contained breathing apparatus where emergency conditions or where exposure limits are exceeded.

Ventilation:

Exhaust appropriate for removal of vapors.

Protective clothing:

Chemical resistant gloves, coveralls, apron and foot coverings.

Eye Protection:

Safety goggles or face shield.

User safety recommendations:

Safety showers and eye wash should be easily accessible.



Personnel Protection:

May irritate the eye and skin. Avoid contact with eyes and skin. DO NOT inhale spray mist. When preparing spray and using the prepared spray, wear cotton overalls buttoned to the neck and wrist and washable hat, elbow-length PVC gloves and face shield. After use and before eating drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, face shield and contaminated clothing.

9. Physical And Chemical Properties

Appearance	Light yellow liquid free of visible impurities
Odour	Slightly Aromatic
pH	5.66 (5% emulsion in CIPAC standard water D)
Flammability	Flammable
Explodability	No-Explosive
Density	0.8975 Kg/L at 20°C
Flash point	>40°C

10. Stability And Reactivity

Stability	Stable under normal conditions.
Condition to avoid	Excessive heat.
Material to avoid	Strong oxidizers, acids, and alkalis.
Hazardous polymerization	will not occur

11. Toxicological Information

Toxicology Data:

Acute Oral LD ₅₀ (rat)	79 - 400 mg/kg
Acute Inhalation LC ₅₀ (4 h rat)	0.32 mg/l
Eye Irritation (rabbit)	Mild irritation to the eyes.

Toxicity and Hazards:

Over exposure of skin to Alphacide 100EC may cause temporary burning or itching sensation. The product may cause eye irritation.



Carcinogenicity, Teratogenicity Mutagenicity:

- **Reproductive effects:** No adverse effects on reproduction were observed in a three-generation study with rats given doses of 37.5 mg/kg/day, the highest dose tested.
- **Teratogenic effects:** Alpha-Cypermethrin is not teratogenic..
- **Mutagenic effects:** Alpha-Cypermethrin is not mutagenic.
- **Carcinogenic effects:** EPA has classified alpha-Cypermethrin as a possible human carcinogen because available information is inconclusive.

12. Ecological Information

Alpha-Cypermethrin is practically non-toxic to birds. Alpha-Cypermethrin is very highly toxic to fish and aquatic invertebrates. It is highly toxic to bees.

13. Disposal Consideration

Pesticide wastes are toxic. Do not reuse product containers. Dispose of product containers, waste containers and residues according to local health and environmental regulations.

14. Transport Information

Proper Shipping Name	Environmentally hazardous substances, Synthetic Pyrethyroid Pesticide, Liquid, toxic (alpha Cypermethrin)
UN number	UN No: 2588
Class	6.1
Packing Group	III
Marine Pollutant	Yes

15. Regulatory Information.

Pest Control Product

16. Other Information

Buyer assumes all responsibility for safety and use not in accordance with the product label instructions.