



MATERIAL SAFETY DATA SHEET

ALPHAQUEST[®] 100ULV

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

1. PRODUCT IDENTIFICATION

Product Name: **ALPHAQUEST[®] 100ULV**

Chemical Class: Pyrethroid

Use: Alphaquest 100ULV is a Public Health Insecticide based on *alpha-Cypermethrin*. It has a contact and stomach action and is used for the control of a wide range of pests in public health programs.

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

Substance	Proportions (% w/w)	Chemical structure
<p>alpha-cypermethrin Technical CAS No. 67375-30-8 Chemical Name: A racemate comprising (S)- -cyano-3-phenoxybenzyl (1<i>R</i>,3<i>R</i>)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate and (R)- -cyano-3-phenoxybenzyl (1<i>S</i>,3<i>S</i>)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate (IUPAC)</p>	<p>11.80 (S) (1<i>R</i>)-<i>cis</i>- (100 g / L)</p>	<p style="text-align: center;">+</p>
Organic solvents	88.20	(R) (1 <i>S</i>)- <i>cis</i> -



3. HAZARD IDENTIFICATION

Acute Effects:

Physical Hazards

None

Health Hazards:

Toxic by inhalation. In contact with skin and if swallowed. May be irritating to eyes and skin. May be cause sensitization by skin contact.

4. FIRST AID MEASURES

First Aid:

Swallowed:

Provide the patient is conscious, wash out mouth with water. Do not induce vomiting. Vomiting should only be induced under the direction of a physician or a poison control center. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in vomits, rinse mouth and administer water. Immediately transport victim to an emergency facility.

Eye:

Irrigate for 20 minutes with copious quantities of water with eyelids held open. If irritation persists, repeat flushing. Seek medical attention.

Skin:

Remove contaminated clothing. Flush skin with running water for a minimum of 20 minutes. If swelling, redness, blistering or irritation occurs seek medical attention immediately.

Inhalation:

Remove victim to fresh air. If not breathing give artificial respiration preferably mouth – to- mouth. If breathing is labored. Give oxygen. Obtain immediate medical attention.

Advice to doctor:

This product contains alpha- cypermethrin, which is a synthetic pyrethroid insecticide. There is no specific antidote. Symptomatic treatment and supportive therapy is indicated if ingestion occurs, gastric lavage should be considered within four hours.



5. FIRE FIGHTING MEASURES

Fire and Explosion Hazard:

Keep fire exposed containers cool by spraying with water.

Extinguishing Media:

For small fires, use foam, carbon dioxide or dry powder extinguishant.
For large fires, use foam or water-fog; avoid use of water jet. Contain run off water with for example, temporary earth barriers.

Protective Equipment:

A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions.

Unusual fire and explosion hazards:

Decomposition may give rise to toxic fumes.

6. ACCIDENTAL RELEASE MEASURES

Contain spill and absorb with sand or proprietary absorbent (vermiculate). Prevent from entering drains, waterway or sewers. Collect in sealed open top containers for disposal. Generously cover the contaminated areas with common, household detergent brush and work the detergent into the remaining spilled material forming slurry. Collect slurry in sealed open top container for disposal.

Disposal

Triple rinse containers, add rinsate to the spray tank, then offer container for recycling/reconditioning, or puncture top sides and bottom and dispose of in accordance with local regulations. On-site disposal of concentrate is not acceptable.

Wastes disposal by industrial incineration or burial at a site approved by local authorities.

7. HANDLING AND STORAGE

Keep in original containers, tightly closed and locked up. Keep out of the reach of children and away from food.

Avoid breathing vapors or spray mist. Use normal good industrial hygiene and housekeeping practices.

Ideal storage temperature is 10 - 27°C. Do not expose sealed containers to temperature above 40°C.



8. EXPOSURE CONTROLS / PERSONNEL PROTECTION

Engineering Controls:

Natural ventilation only required when handling the concentrate. A local exhaust should be used in confined areas to keep the level of solvent within acceptable limits.

Personnel Protection:

Facial skin contact may cause temporary facial numbness. Sensitive workers should use protective clothing. Avoid contact with eyes and skin. Do not inhale spray mist. When preparing spray wear cotton overalls buttoned to the neck and wrist and washable hat, elbow-length neoprene gloves and face shield or goggles. 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 or goggles and contaminated clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Assay	Alpha - Cypermethrin 100 ± 8 g/L
Appearance	Clear light yellow liquid free of visible impurities
Odour	Slight aromatic
Density	0.9936 Kg/L
Flash point	52 C
Solubility in H ₂ O	Insoluble

10. STABILITY AND REACTIVITY

Stability	Stable at room temperature.
Incompatibility:	Strong oxidizing agents. Acids and alkaline materials
Hazardous polymerization	will not occur
Conditions to avoid:	keep away from heat. Keep away from sources of ignition – No Smoking.

Hazardous Decomposition Products:

Thermal decomposition products are toxic and may include hydrocarbons ammonia, organic and acid halides, and oxides of carbon, nitrogen and sulphur.



11. TOXICOLOGICAL INFORMATION

Toxicology Data:

Acute Oral LD ₅₀ (rat)	790 mg/kg
LD ₅₀ Dermal (rat)	> 2000 mg/Kg
LC ₅₀ Inhalation rat	3.2 mg/L of air (4 h)
Additional Information:	High concentrations of this product are irritating to the respiratory tract.

Additional Information:

May be cause skin irritation. In humans may cause tingling or numbness in exposed area (paraesthesia). The effect may result from splash, aerosol or transfer to the face from contaminated gloves and hands. This effect is transient, lasting up to 24 hours. There is no evidence of any long term or cumulative effects following repeated contamination repeated and/ or prolonged contact may cause skin sensitization.

General Information:

Slight skin and eye irritation (rabbits). May be weak skin sensitizer. In 90 days feeding trials, rats receiving 60 mg/Kg diet showed no ill-effects.

Animal studies have not shown mutagenic effects.

12. ECOLOGICAL INFORMATION

Keep out of water supplies ground water or open water. This product is very toxic to aquatic organisms. However, due to rapid loss from water, no toxic effects to fish are observed under field conditions.

Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

13. DISPOSAL CONSIDERATION

Disposal Method:

Do not contaminate ponds, waterways or ditches with chemical or used containers. Dispose of in facility permitted for hazardous waste.

Container Disposal

Empty container retains product residue. Triple rinse or equivalent, empty container, return rinse water to dilution mixture, and dispose of dilution mixture as a hazardous waste if it cannot be disposed of by use according to label instructions. Do not reuse container. Offer if for recycling or reconditioning, or puncture and dispose of in properly permitted landfill.



14. TRANSPORT INFORMATION

UN. No:	UN 3351
Proper Shipping name:	Pyrethroid pesticide , liquid, toxic, flammable, flash point $\geq 23^{\circ}\text{C}$ (Alpha-cypermethrin)
Class:	6.1
Classification Code:	TF2
Packing group:	III
Subsidiary Risks:	6.1 +3
Special provisions:	61
Limited quantities:	LQ19
Packaging:	Packing instructions P001 IBC03 R001 Special packing provisions Mixed Packaging Provisions MP15 Instructions T7
UN Portable tanks:	Special Provisions TP2 TP28 Tank Code L4BH
ADR Tank:	Special Provision TU15 TE1 TE15 TE19 Vehicle for tank carriage FL Transport Category 2
Special provision carriage:	Packages - Bulk - Loading, unloading & Handling CV13 CV28 Operation S2 S9
Hazard Identification	63

15. REGULATORY INFORMATION.

Public Health Pest Control Product

16. OTHER INFORMATION

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