

MATERIAL SAFETY DATA SHEET



ASTRA INDUSTRIAL COMPLEX CO., LTD. "ASTRACHEM"
P.O. Box 30447, AL-KHOBAR 31952
KINGDOM OF SAUDI ARABIA
Tel # (+966) 3 8121 406
Revision Date: 01/07/2017

ALPHAQUEST 100EC

1. PRODUCT IDENTIFICATION

Product Name: ALPHAQUEST 100EC
Active ingredient: ALPHA-CYPERMETHRIN
Chemical Class: IRAC 3A Pyrethroid
Use: AlphaQuest 100EC is insecticides for Public Health.
Producer: Astra Industrial Complex Co., Ltd.
P.O. Box 30447, Al-Khobar 31952
Kingdom of Saudi Arabia
Emergency Tel # (+966) 3 8121 406

2. HAZARD IDENTIFICATION

Hazard Classifications: 3.1D, 6.1D, 6.3B, 6.9B, 9.1A, 9.3B, 9.4A

Most important hazards: WARNING: Combustible liquid. Do not store or use near heat or naked flame. Will burn if ignited.

WARNING: Maybe harmful if swallowed, inhaled or absorbed through the skin. May cause mild skin irritation. May cause reproductive/development damage from repeated oral exposure.

Very toxic to aquatic organisms, toxic to terrestrial vertebrates, very toxic to terrestrial invertebrates. Toxic to bees.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance	Contents (g /Liter)	CAS No.
Alpha-Cypermethrin	100 g/L	67375-30-8

4. FIRST AID MEASURES

General advice:

First aid providers should wear personal protective equipment to prevent exposure. Remove contaminated clothing. Move person to fresh air. If person is not breathing, give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or physician for treatment advice. Have the product container or label with you when calling a poison control center or doctor or going for treatment.

If inhaled:

Remove the affected individual into fresh air and keep the person calm. Assist in breathing if necessary.

If on skin:

Rinse skin immediately with plenty of water for 15 - 20 minutes.

If in eyes:

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Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing.

If swallowed:

Rinse mouth and then drink plenty of water. Do not induce vomiting. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Immediate medical attention required.

Note to physician

Treatment: Aspiration of this product during induced emesis can result in lung injury. If evacuation of stomach contents is considered necessary, use method least likely to cause aspiration, such as gastric lavage after endotracheal intubation.

5. FIRE FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media:
water spray, carbon dioxide, foam, dry powder

Special hazards arising from the substance or mixture

Hazards during fire-fighting:

carbon monoxide, Hydrogen chloride, hydrogen cyanide, carbon dioxide, organochloric compounds

The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

Evacuate area of all unnecessary personnel. Contain contaminated water/firefighting water. Do not allow to enter drains or waterways. If exposed to fire, keep containers cool by spraying with water.

Vapours are heavier than air and may accumulate in low areas and travel a considerable distance up to the source of ignition. Ignition and /or flash back possible.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Take appropriate protective measures. Clear area. Shut off source of leak only under safe conditions. Extinguish sources of ignition nearby and downwind. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

Environmental precautions

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater.

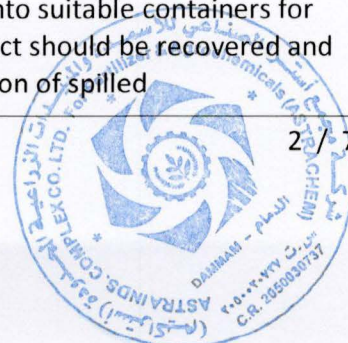
Methods and material for containment and cleaning up

Dike spillage. Pick up with suitable absorbent material. Place into suitable containers for reuse or disposal in a licensed facility. Spilled substance/product should be recovered and applied according to label rates whenever possible. If application of spilled

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substance/product is not possible, then spills should be contained, solidified, and placed in suitable containers for disposal. After decontamination, spill area can be washed with water. Collect wash water for approved disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

RECOMMENDATIONS ARE FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS. PESTICIDE APPLICATORS & WORKERS must refer to the Product Label and Directions for Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170. Ensure adequate ventilation. Keep away from sources of ignition - No smoking. Keep container tightly sealed. Protect against heat. Handle and open container with care. Ground and/or bond all equipment to prevent electrostatic charges. Avoid aerosol formation. Provide means for controlling leaks and spills. Do not return residues to the storage containers. Follow label warnings even after container is emptied. To avoid risk of injury, do not cut, puncture or weld on or near this container. The substance/ product may be handled only by appropriately trained personnel. Avoid all direct contact with the substance/product. Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts/mists/vapours. Wear suitable personal protective clothing and equipment.

Protection against fire and explosion:

The relevant fire protection measures should be noted. Fire extinguishers should be kept handy. Avoid all sources of ignition: heat, sparks, open flame. Sources of ignition should be kept well clear. Avoid extreme heat. Keep away from oxidizable substances. Electrical equipment should conform to national electric code. Ground all transfer equipment properly to prevent electrostatic discharge. Electrostatic discharge may cause ignition.

Conditions for safe storage, including any incompatibilities

Segregate from foods and animal feeds.

Further information on storage conditions: Keep only in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame. Avoid all sources of ignition: heat, sparks, open flame. Avoid direct sunlight. Store protected against freezing. If solids are observed, warm to above 4.4 °C (40 °F) and roll or shake containers to redissolve. Protect containers from physical damage. Protect against contamination. The authority permits and storage regulations must be observed.

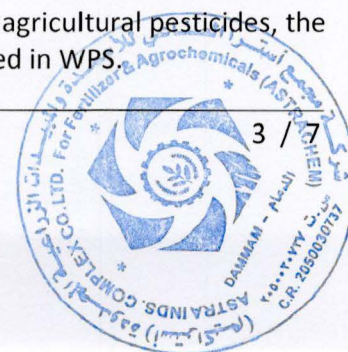
8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls:

When handlers used closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the worker protection standard (WPS) for agricultural pesticides, the handler PPE requirements may be reduced or modified as specified in WPS.

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Where engineering controls are indicated by use conditions or a potential for excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize employee exposures: general area dilution/exhaust ventilation.

Eye/Face protection

Eye and face protection requirements will very dependent upon work environment conditions and materials handling practices. Appropriate ANSI Z87 approved equipment should be selected for the particular use intended for this material.

Eye contact should be prevented through use of chemical safety glasses with side shields or splash proof goggles. An emergency eye wash must be readily accessible to the work area.

Body protection

Application and other handlers must wear long sleeved shirts and long pants. Waterproof gloves, shoes plus socks and chemical resistant headgear for overhead exposure.

Work/Hygienic procedures:

Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this products concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining personal protective equipment (PPE). If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear light yellow liquid free of visible impurities
Physical state:	Liquid
Odour:	Aromatic
Acidity as H ₂ SO ₄ g/kg	≤ 10 g/Kg
Density g/ml	0.906 – 0.918
Flash Point	49 °C

10. STABILITY AND REACTIVITY

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

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Oxidizing properties: not fire-propagating

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

No hazardous reactions if stored and handled as prescribed/indicated.

Conditions to avoid

Avoid all sources of ignition: heat, sparks, open flame. Avoid extreme temperatures.

Avoid prolonged exposure to extreme heat. Avoid contamination. Avoid electro-static discharge. Avoid prolonged storage.

Incompatible materials

Strong bases, strong acids, strong oxidizing agents

Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:

No decomposition if stored and handled as prescribed/indicated.

11. TOXICOLOGICAL INFORMATION

Formulation Toxicity:

Acute oral toxicity : LD ₅₀ (mg/kg)	: rat: 200 mg/kg body weight
Acute dermal toxicity LD ₅₀ (mg/kg)	: rat > 2 000 mg/kg
Acute inhalation toxicity : LC ₅₀	: 0.195 mg/l air
Skin irritant effect	: Non irritat to skin of rabbit
Eye mucosa irritant effect	: Non irritant to eye of rabbit
Sensitizing effect	: Weak sensitiser to skin of guinea pigs

12. ECOLOGICAL INFORMATION

Acute toxicity for fishes

LC50: 2.8 µg/ (96 h); rainbow trout (*Oncorhynchus mykiss*)

Aquatic invertebrate toxicity:

EC50: 0.1–0.3 µg/l (48 h) *Daphnia magna*

Algae toxicity:

EC50: > 100 mg/L (72 h); green alga (*Pseudokirchneriella subcapitata*)

Bird toxicity:

Acute oral LD50: 31 mg/kg; Japanese quail

Acute oral LD50: >2025 mg/kg; bobwhite quail

Reproductive toxicity NOEC (20 w) for northern bobwhite quail 150 mg/kg food

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Bees toxicity

Toxic to bees. LD50 (24 h) 0.059 µg/bee;

LC50 (24 h) 0.033 µg/bee. No toxic effect under field conditions.

13. DISPOSAL CONSIDERATION

General Disposal Guidance:

Do not contaminate water, food or feed by disposal, Contamination with this product will render water, food or feed unfit for human consumption. Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility.

Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, in accurate or otherwise inappropriate. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state and local regulations regarding the proper disposal of this material.

Container Disposal:

Triple rinse (or equivalent). Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. If burned, stay out of smoke.

14. TRANSPORT INFORMATION

ADG

Packing Group: None allocated

Special Precautions for User: None allocated

Hazchem Code: None allocated

UN Number: None allocated

UN Proper Shipping Name: None allocated

Class: None allocated

Subsidiary Risk: None allocated

IMDG

Subsidiary Risk: None allocated

Packing Group: III

UN Number: 3082

UN Proper Shipping Environmentally

Hazardous Name: Substance, Liquid, N.O.S.
(alpha cypermthrin)

Class: 9

Marine Pollutant: Marine pollutant

IATA - DGR

Subsidiary Risk: None allocated

UN Number: 3082

UN Proper Shipping Environmentally

Hazardous Name: Substance, Liquid, N.O.S.
(alpha cypermthrin)

Packing Group: III

Special Precautions for User: 2XE

Class: 9

15. REGULATORY INFORMATION.

Pesticide for Public Health use.

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16. OTHER INFORMATION

This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace based on publicly available and internally available information. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

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