

1: IDENTIFICATION

Chemical Name	Profenophos: (RS)-(O-4-bromo-2-chlorophenyl O-ethyl S-propyl phosphorothioate) Cypermethrin: (RS)-α-cyano-3-phenoxybenzyl (1RS, 3RS; 1RS, 3SR)-3-(2, 2-dichlorovinyl)-2, 2-dimethylcyclo propane carboxylate		
Synonyms	Profenofos 40% + Cypermethrin 4% EC	Trade Name	HELIOX® (HELIOX)
Uses	Insecticide	Molecular Formula	C ₁₁ H ₁₅ BrClO ₃ PS + C ₂₂ H ₁₉ Cl ₂ NO ₃
Manufacturer/ Supplier	Ulink AgriTech Pvt. Ltd. Office Nos. 001 And 002, Ground Floor Wing "A" And Nos. 003 And 004 Ground Floor Wing "B", Nyati Tech Park, Wadgaon Sheri, Pune - 411014, Maharashtra		
Emergency Contact	9503095030	E-mail	info@agrostar.in

2: COMPOSITION/INFORMATION OF INGREDIENTS

Chemical Name	CAS #	Percent or Content (w/w)
Profenophos	41198-08-7	40.00%
Cypermethrin	52315-07-8	4.00%
Other Ingredients	-	Q.S

3: HAZARD IDENTIFICATION

Human Health Hazard: Harmful if swallowed; May cause lung damage; Risk of serious damage to eyes
 Irritating to skin; May cause sensitization by skin contact

Environmental Hazard: Very toxic to aquatic organisms

4: FIRST AID MEASURES

General: First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). Have the product container, label or safety data sheet while seeking medical attention, a poison control center or physician, or going for treatment.

Inhalation: Move patients to fresh air. Keep the patients warm and at rest. If person is not breathing then give artificial respiration, preferably mouth-to-mouth if possible. Allow patients to rest. Immediately seek medical attention.

Ingestion: Rinse mouth with water. Do not induce vomiting unless told by doctor. Do not give anything by mouth to an unconscious person. Seek medical attention immediately and show this container or label.

Skin Contact: In case of contact with product, wash immediately skin area with plenty of water and soap. Speed in removing material from skin is extremely important. Remove and isolate contaminated clothing and shoes. Call medical attention.

Eye Contact: Rinse immediately with plenty of water for several minutes. After 5 minutes remove contact lenses if present and continue rinsing with plenty of water. Continue to rinse with eyelid wide open for at least 15-20 minutes. Seek medical attention if irritation develops.

Note to Physician: Treat as a cholinesterase inhibitor. Treatment of poisoning -Atropine in addition oxime preparation such as toxogon in under medical supervision. Inject 2-4 mg Atropine Sulphate (for children 0.2 to 5 mg) i.v. or i.m. every 5 to 10 minutes until signs of atropinization occurs. The patient must remain atropinized for a length of time (24 to 48 hours) to prevent subsequent poisoning due to delayed resorptions. Treat symptomatically.

5: FIRE FIGHTING MEASURES

Extinguishing Media: Water spray, alcohol-resistant foam, dry chemical powder or carbon dioxide

Unsuitable Extinguishing Media: Direct water jet as it may spread fire

Hazardous Thermal (de)composition: Harmful and toxic vapours/gasses may release as combustion products

Special Procedures: Move containers away from area if it can be done without risk. If possible remove containers from fire zone, cool them with water spray. Minimize use of water to prevent environmental contamination. Dike and collect water used to fight fire to prevent environmental damage due to runoff. If area is not too heavily exposed to fire, and if conditions permit, let fire burn itself out, since water may increase the contamination hazard. Do not discharge extinguishing water into the drain or water bodies.

Protection of Fire Fighters: Wear positive-pressure self-contained breathing apparatus and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Ventilate spillage area. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from spill/fumes.

Environmental Precaution: Do not allow runoff to enter drains and public waters. Notify the authorities if product enters.

Methods for Cleaning up: Clean up any spills as soon as possible, using an absorbent material such as sand, soil, diatomaceous earth etc. Collect spilled material in sealed containers. Clean contaminated floors and objects thoroughly with water and detergents. Dispose of in accordance with local regulations. If significant amount of product enters into drain, notify the local authorities.

7: HANDLING & STORAGE

Handling: Do not smoke, drink, or eat during handling. Wash hands using liquid detergent. Wear protective clothing to avoid contact and/or inhalation with the product. Eliminate all sources of ignition from areas where the material is handled or used. Good personal hygiene procedures must be practiced.

Specific Conditions: Good local exhaust ventilation. Full face protective mask.

Storage: Store in dry, cool, well-ventilated area and out of reach of children. Keep in original container and tightly closed when not in use. Protect from light and humidity. Max. storage temperature: 35°C and min. storage temperature: -10°C

8: EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering Measures: Ensure area is well-ventilated, especially confined area. Handle in accordance with good industrial hygiene and safety practice.

General Protection: Avoid contact with eyes and skin. While handling the product wear cotton overalls buttoned to the neck and wrist, elbow-length PVC gloves and face shield. After use and before eating, drinking and smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves and contaminated clothing.

Personal Protection: Follow all precautions and instructions on the label. In all other cases the following recommendations would apply.

Respiratory Protection: Always use NIOSH/MSHA approved respiratory protection equipment with a universal filter type including particle filter.

Skin Protection: Must wear suitable protective clothing. Long-sleeve shirt, long pants, shoes plus socks. Any clothing or other absorbent material which has been drenched or heavily contaminated must be discarded.

Hand Protection: Chemical-resistant gloves made of any waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyvinyl chloride (PVC) or Viton.

Eye Protection: Safety goggles, chemical splash goggles or face shield for eyes protection should be used. Safety showers and eyewash should be easily available.

Others: Wash clothing before reusing.

9: PHYSICAL/CHEMICAL PROPERTIES

Appearance: Clear Liquid	Density[g/cc]: 1.06 - 1.08	Physical State: Liquid
Colour: Light brown to brown	Odour: Garlic - like	Flashing Point [°C]: >35.5
Solubility in Water: Miscible	pH: 5.0 - 7.0 (1% emulsion in water)	

10: STABILITY & REACTIVITY

Stability: Stable for under normal circumstances

Hazardous Decomposition Products: Harmful and toxic vapours/gasses may release

Conditions to Avoid: No data available

Materials to avoid: No data available

Hazardous Polymerization: Will not occur.

11: TOXICOLOGICAL INFORMATION

Rat oral LD50 [mg/kg] : 800	Rat inhalation LC50 [mg/l/4h] : >5000	Skin irritation (rabbit): Irritant
Dermal (rat) LD50 [mg/kg]: > 4000	Skin Sensitization (Guinea Pig): Non-sensitizer	Eye irritation (rabbit): Strong irritant

12: ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic organisms.

Acute fish toxicity LC50 (96 h)[mg/L]

Ca 0.02

Persistence, Degradability and Mobility in soil: No data available

13: DISPOSAL CONSIDERATION

Waste-disposal Procedures: Dispose of this product only according to the label. Do not contaminate drains, streams, rivers or waterways with the chemical or used container.

Contaminated Packaging: Empty remaining contents and the rinse containers thrice before disposal. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers unless they are specifically designed to be refilled. If burnt, avoid inhalation of smoke (if burning permitted).

14: TRANSPORT INFORMATION

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Proper Shipping Name: FLAMMABLE LIQUID, N.O.S.

Land transport (ADR/RID): Class-3, Packing Group-III

Sea transport (IMO/IMDG): Class-3.3, Packing group-III, Marine Pollutant-Yes

Air transport (IATA/ICAO): Class-3 Packing group-III, Environmental hazard mark-Yes

15: REGULATORY INFORMATION

Hazard Symbol: Xn Harmful

Phrases R: R10, R22, R38, R41, R43

Phrases S: S2, S13, S20/21, S26, S28, S36/37/39, S46, S62

16: OTHER INFORMATION

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