



**MATERIAL SAFETY DATA SHEET**

**Alphathrin**

**1. Identification of the substance and of the Company undertaking.**

**Supplier** Nufarm UK Limited  
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**Product** An emulsifiable concentrate containing 100g/l Alpha-cypermethrin.  
**Product CAS No:**  
**Reference No:** 300852D  
**Use:** Insecticide.

**2. Composition/Information on ingredients.**

Number	Ingredient
1	Alpha-cypermethrin [A racemate comprising (S)- $\alpha$ -cyano-3-phenoxybenzyl (1R,3R)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate and R)- $\alpha$ -cyano-(3-phenoxybenzyl (1S,3S)-3-(2,2-dichlorovinyl)-2,2-dimethyl-cyclopropanecarboxylate]
2	Aromatic hydrocarbon

Number	CAS No	Hazard Symbols	R phrases	Concentration	Annex 1 Index
1	67375-30-8	N/A	Not classified	100g/l	
2	64742-95-6	Xn;N	R10,37,51/53, 65, 66, 67	~700g/l	649-356-00-4

**3. Hazards Identification.**

Flammable.  
Toxic if swallowed.  
Harmful by inhalation.  
Irritating to eyes and skin.  
May cause sensitisation by skin contact.  
Very toxic to aquatic organisms, may cause long term adverse effects in the environment.  
Harmful: may cause lung damage if swallowed.

#### **4. First Aid Measures**

<b>Inhalation:</b>	Remove patient to fresh air until recovered. Administer oxygen or artificial respiration if patient has difficulty breathing. Seek medical attention.
<b>Skin Contact:</b>	Remove contaminated clothing and launder before re-use. Wash affected area with soap and water. Seek medical attention if there are persistent problems.
<b>Eye Contact:</b>	Irrigate eye with fresh water for at least 15 minutes Seek medical attention.
<b>Ingestion:</b>	Do not induce vomiting. Rinse mouth out with water. Keep patient warm and rested. Seek medical attention
<b>Advice for Medical Practitioners:</b>	Treat symptomatically.

#### **5. Fire-Fighting Measures**

<b>Suitable Extinguisher:</b>	Water spray- Take measures to avoid water entering drains or water courses.  Carbon dioxide. Alcohol resistant foam.
<b>Unsuitable Extinguisher:</b>	High volume water jet.
<b>Special Exposure Hazards:</b>	In case of fire the evolution of dangerous gases is possible.
<b>Protective Equipment:</b>	Protective clothing and breathing apparatus.

#### **6. Accidental Release Measures**

<b>Personal Precautions:</b>	Avoid contact with skin Wear personal protective equipment (See section 8)
<b>Environmental Precautions:</b>	Do not allow to enter drains or water courses. Advise relevant authorities in case of contamination of public waters.
<b>Methods For Cleaning:</b>	Contain spill and absorb with sand or propriety absorbent (vermiculite). Collect contaminated material in heavy duty plastic bags or drums. Dispose of through a reputable waste disposal contractor. In the event of spillage's, inform the local water services company and the Environment Agency or other relevant authorities immediately.

#### **7. Handling and Storage**

<b>Handling</b>	Keep product in original tightly closed container. Avoid Wear personal protective clothing. Do not eat drink or smoke when handling product. Wash hands before eating, drinking or smoking.
<b>Storage:</b>	Store in locked well ventilated areas. Keep only in the original container. Keep out of reach of children and unauthorised personnel.

## **8. Exposure Controls/Personal Protection**

<b>Take Measures to Prevent:</b>	Exposure by inhalation and contact with skin, eyes and clothing Provide local exhaust or general ventilation.
<b>Exposure Control Limits:</b>	No exposure limits have been determined.
<b>Respiratory Protection:</b>	In areas of poor ventilation use CN510 (Class FFP1) combi type respirator.
<b>Hand Protection:</b>	Nitrile or rubber gloves.
<b>Skin Protection:</b>	Protective overalls, ensuring arms and legs are covered, and closed footwear.
<b>Eye Protection:</b>	Goggles or safety glasses.

## **9. Physical and Chemical Properties**

<b>Appearance:</b>	A slight yellow liquid.
<b>Odour:</b>	Aromatic odour.
<b>pH:</b>	5.5 (1% solution)
<b>Boiling Point:</b>	155 - 180°C.
<b>Flash Point (Open or Closed):</b>	42°C.
<b>Flammability (gas/solid):</b>	Flammable.
<b>Autoflammability:</b>	-
<b>Explosive Properties:</b>	Not explosive.
<b>Oxidising Properties:</b>	Not oxidising.
<b>Vapour Pressure:</b>	20 - 30Pa (solvent @ 20°C)
<b>Density:</b>	0.91 g/ml @20°C.
<b>Solubility:</b>	Emulsifies in water.
<b>Viscosity:</b>	No data available.
<b>Octanol/water co-efficient:</b>	logP = 5.16 (alpha-cypermetherin)
<b>Vapour Density:</b>	No data available.
<b>Evaporation rate:</b>	No data available.
<b>Other Properties:</b>	

## **10. Stability and Reactivity**

<b>Conditions to Avoid:</b>	Product is stable under normal temperatures and pressures.
<b>Materials to Avoid:</b>	Avoid contact with strong oxidising agents.
<b>Hazardous Decomposition</b>	Thermal decomposition products may include toxic and corrosive fumes of chlorides and toxic oxides of carbon and nitrogen.

## **11. Toxicological Information**

<b>Acute Toxicity:</b>	LD50 oral, rat 71mg/kg. LD50, dermal rat > 2000mg/kg. LC50, inhalation, rat > 1.58mg/l air.
	Not carcinogenic. Not mutagenic. Not teratogenic.

**Irritation:** Eye irritant.

**Sensitisation:** Moderate skin sensitiser.

## **12. Ecological Information**

**Biological Degradability:** Alpha-cypermethrin hydrolyses with cleavage of the ester bonds occurring within c. 16 weeks.

**Ecotoxicity:** LC50 (96h) rainbow trout = 40µg/L.  
EC50 (48h) daphnia magna = 0.28µg/L.

LD50 oral, mallard duck >10,000mg/kg (alpha-cypermethrin)  
Toxic to bees - LD50 oral, bee >0.319µg ai/bee.  
No toxic effect under field conditions.

## **13. Disposal Considerations**

**Safe Handling of Residues/Waste:** Pesticide disposal - Burn in high temperature incinerator with effluent scrubbing or bury in a specially designated landfill. Always dispose of in accordance with local regulations.

Container disposal - Contaminated packaging material should be treated as the product.

## **14. Transport Information**

**Special Transport Precautions:** MARINE POLLUTANT.

**Road Classification:** ADR/RID - UN. 3351 Pyrethoid pesticide, liquid, toxic, flammable (alpha-cypermethrin 10%/naphtha solvent solution)  
Class 6.1; Packing group III

**Maritime Classification:** IMDG - UN. 3351 Pyrethoid pesticide, liquid, toxic, flammable (alpha-cypermethrin 10%/naphtha solvent solution)  
Class 6.1; Packing group III

**Air Classification:** ICAO/IATA - UN. 3351 Pyrethoid pesticide, liquid, toxic, flammable (alpha-cypermethrin 10%/naphtha solvent solution)  
Class 6.1; Packing group III

## **15. Regulatory Information**

**Label Information:** Classification according to European Directive 99/45/EC.

Risk symbols - T; Toxic..  
N; Dangerous for the environment.

Risk phrases:-  
R10 - Flammable.  
R25 - Toxic if swallowed.  
R20 - Harmful by inhalation.  
R36/38 - Irritating to eyes and skin.  
R43 - May cause sensitisation by skin contact.  
R50/53 - Very toxic to aquatic organisms, may cause long term adverse effects in the environment.  
R65 - Harmful; may cause lung damage if swallowed.

Safety phrases:-  
S2 - Keep out of reach of children.  
S13 - Keep away from food, drink and animal feeding stuffs.

S24/25 - Avoid contact with skin and eyes.

S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)

S29/56 - Do not empty into drains, dispose of this material and its container to a hazardous or special waste collection point.

S62 - If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

## **16. Other Information**

This MSDS supersedes revision 2, dated 10/04/98.

Sections revised:- All sections.

This Material Safety Data Sheet was compiled in compliance with Council Directive 91/155/EEC and their subsequent amendments.

**The information given herein is, to the best of our knowledge, correct and is given in good faith but no warranty, expressed or implied, is given.**