

Material Safety Datasheet

1. Identification of the substance/preparation and company/undertaking

Product

Trade Name: FERNPATH DART

Recommended Uses: Agricultural/Horticultural Insecticide

Manufacturer / Supplier: AgriGuard Ltd
 Address: Unit 3, Block B, Tally House, Broomfield Business Park
 Malahide
 Co. Dublin
 Ireland

Telephone Number: +353-1-8462044
 Fax Number: +353-1-8462489
 e-mail: info@agriguard.ie
 Emergency Telephone No.: 0870-600-6266 [UK National Poisons Control
 Information Service (NPIS) Centre]
 01-8379964/66 (Poisons Information Centre, Beaumont
 Hospital, Beaumont, Dublin 9, Ireland)

2. Composition/Information on Ingredients

Component	CAS Registry No.	EINECS ELINCS No.	Conc. g/L	R phrase*	Symbol
alpha-Cypermethrin (R)- 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)	67375-30-8	257-842-9	100	R20/21/22, R36, R43, R50/53	Xn, Xi, N
Solvent aromatic naphtha	64742-95-6	265-199-0	740	R10, R37, R65, R51/53	Xn, N

* Reference Section 16.

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3. Hazards Identification

Harmful by inhalation, in contact with skin and if swallowed. Irritating to skin and respiratory system. Risk of serious damage to eyes. Flammable.
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. First Aid Measures

Skin Contact: Remove contaminated clothing. Wash the affected area immediately with soap and water. If skin irritation persists, call a physician.

Eye Contact: Rinse out with plenty of water with the eyelid held wide open. Seek medical attention.

Inhalation: Remove the patient to fresh air. If breathing has stopped perform artificial respiration. Keep person warm and at rest. Treat symptomatically and supportively. Get medical attention immediately.

Ingestion: Do not induce vomiting. Remove by gastric lavage and catharsis. Maintain blood pressure and airway. Give oxygen if respiration is depressed. Do not perform gastric lavage if victim is unconscious. Get medical attention immediately.

Further Information: Guide to doctor: signs and symptoms of overexposure are irritation, nausea, headache, vomiting, diarrhoea, tearing, difficult breathing, dry skin, blurred vision, itching and burning skin.

For further advice on treatment contact:
The UK National Poisons Control Information Service (NPIS)
Centre (Emergency Telephone No.: 0870-600-6266) or The
Poisons Information Centre, Beaumont Hospital, Beaumont,
Dublin 9, Ireland (Telephone 01-8379964/66).

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5. Fire-fighting Measures

Suitable extinguishing media: Dry chemical, carbon dioxide, halon, water spray or standard foam.

Extinguishing media which must not be used for safety reasons: High pressure water jet

Special protective equipment for fire-fighting: Wear self contained breathing apparatus and protective clothing (chemical protection suit, boots and plastic or rubber gloves)

Other Information: Contain fire-fighting water with sand or some such bunding material.
Vapour is heavier than air and can travel a considerable distance to a source of ignition and flash back.
Containers may burst due to vapour pressure.

6. Accidental Release Measures

Personal precautionary measures:

Wear the personal protective equipment outlined in section 8 below.

Environmental-protection measures:

Keep the area isolated and do not allow contamination to enter drains or waterways. Spillage or uncontrolled discharges into watercourses must be alerted to the National Rivers Authority. If the product has entered a watercourse or sewer, or grossly contaminated soil or vegetation in a public place, advise police.

Procedures for cleaning/absorption:

Contain/absorb the spillage with a suitable inert absorbent material or sand which should then be transfer to secure containers and sent for disposal. After cleaning flush away traces with water.

Further Information:

Remove sources of ignition.

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7. Handling and Storage

Handling: Keep product in original tightly closed container. Handle and open container with care. Do not smoke, eat or drink while handling this material.

Storage: Store in a cool area in the original containers, access should only be for authorised persons. Store in a well-ventilated area away from sources of ignition and strong oxidising agents. Keep away from food and feed.

8. Exposure Controls/Personal Protection

Occupational exposure limits:
4.9 mg/m³ (formulation)
54.1 mg/m³ (alpha-cypermethrin)

Engineering measures to reduce exposure:
Ensure adequate ventilation, especially in confined areas

Personal protective equipment:

Eye protection: Wear safety goggles conforming to BS 2092.

Hand protection: Wear solvent resistant gloves (Nitrile/Butyl rubber).

Respiratory protection: If the ventilation is not adequate wear an approved respirator with combination filter for vapour/particulate.

Skin and body protection: Heavy duty work shoes, solvent-resistant apron, lightweight protective clothing.

Industrial Hygiene:

Do not breathe spray mist. Immediately change contaminated clothing, dispose of if decontamination is not feasible. Keep the work area clean and wash hands before finishing work. When using do not eat, drink or smoke.



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9. Physical and Chemical Properties

Appearance:	Liquid
Colour:	Slight yellow
Odour:	Aromatic odour
pH:	5.5 (1% solution)
Melting point/melting point range	Not applicable
Boiling point/boiling point range:	155 – 180 °C
Flash Point	42 °C
Flammability:	Flammable
Autoflammability	-
Explosive properties:	
Lower limit	Data not available
Upper limit	Data not available
Oxidising properties	None
Vapour pressure	20 - 30 Pa (solvent, 20°C)
Relative density	0.91
Solubility	
Water solubility	Emulsifies in water
Fat solubility	Not available
Partition coefficient	Log Pow 5.16

10. Stability and Reactivity

Stability:	Stable under normal temperatures and pressures.
Conditions to avoid:	Temperature extremes. Heat can release hazardous gases. Protect from frost.
Materials to avoid:	Sources of ignition, strong bases, acids and oxidising agents.
Hazardous decomposition products:	Carbon monoxide, hydrogen halides, nitrogen oxides (NO _x).



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11. Toxicological Information

Acute toxicity:	LD ₅₀ /oral/ rat (mg/Kg): 360mg/kg LD ₅₀ /dermal/ rat (mg/Kg): >2000mg/kg LC ₅₀ /inhalation/ rat (4 hr): > 1.42 mg/l air
Sensitisation:	Mild skin sensitiser.
Long term toxicity:	Repeated contact may cause allergic reactions with very susceptible persons. Prolonged exposure causes local irritation of skin and mucous membranes, especially to the eyes.
Chronic toxicity:	Chronic exposure may cause nausea and vomiting, higher exposure causes unconsciousness.
Further toxicological information:	
After inhalation:	Harmful.
After skin contact:	Non-irritant & mild skin sensitiser.
After eye contact:	Irritant.
After swallowing:	moderately toxic
Carcinogenicity:	Not carcinogenic
Mutagenicity:	Not mutagenic
Reproductive toxicity:	Not teratogenic

12. Ecological Information

Mobility:	Not known
Environmental fate:	
Environmental fate:	Not known
Persistence/Degradability:	In soil, hydrolysis occurs within 6 weeks.
Bioaccumulative potential:	Not known
Ecotoxicity:	Toxic to bees. LD50 59 ng/bee No toxic effect under field conditions (alpha-cypermethrin)
Other toxicity:	Daphnia magna EC ₅₀ (48 h) 0.1 µg/l (alpha-cypermethrin) LC ₅₀ (96 h) rainbow trout) 2.8 µg/l (alpha-cypermethrin) Acute LD ₅₀ oral mallard duck >10000 mg/kg (alpha cypermethrin)

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13. Disposal Considerations

Waste from residues/unused products:

Can be landfilled or incinerated, when in compliance with local regulations. Special Waste Regulations 1996 (SI 1996 No. 972) which implements the EC Hazardous Waste Directive 94/31/EC.

Contaminated packaging:

Do not reuse empty containers. Empty containers can be landfilled after cleaning, when in compliance with local regulations.

14. Transport Information

UN proper shipping name: Pyrethroid pesticide liquid toxic flammable (contains aromatic naphtha and alpha-cypermethrin 10%)

UN Number: 3351

Road/Railway

Proper shipping name: Pyrethroid pesticide liquid toxic flammable (contains aromatic naphtha and alpha-cypermethrin 10%).

UN Number: 3351

Class: 6.1

Packaging group: III

Hazard Identification No.: 30

Inland waterways

Proper shipping name: Pyrethroid pesticide liquid toxic flammable (contains aromatic naphtha and alpha-cypermethrin 10 %).

UN Number: 3351

Class: 6.1

Item: 31

Letter: c

Hazard Identification No.: 30

Sea

Proper shipping name: Pyrethroid pesticide liquid toxic flammable (contains aromatic naphtha and alpha-cypermethrin 10%).

UN Number: 3351

Class: 6.1

Packaging group: III

Marine pollutant; P

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Air
Proper shipping name: Pyrethroid pesticide liquid toxic flammable (contains aromatic naphtha and alpha-cypermethrin 10%).
UN Number: 3351
Class: 6.1
Packaging group: III

15. Regulatory Information

Classification in accordance with The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002: CHIP 3.

Hazardous components which must be listed on the label:

Alpha-cypermethrin
 Solvent aromatic naphtha

Symbol(s):	Xn N	Harmful Dangerous for the environment
R phrases:	R10 R20/22 R36 R65 R50/53	Flammable Harmful by inhalation and if swallowed Irritating to eyes Harmful: may cause lung damage is swallowed Very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment
S phrases:	S2 S13 S20/21 S23 S24/25 S36/37/39 S29/56 S62	Keep out of the reach of children Keep away from food, drink and animal feeding stuffs When using do not eat, drink or smoke Do not breathe gas/fumes/vapour/spray. Avoid contact with skin and eyes Wear suitable protective clothing, gloves and eye/face protection. Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Designated name: FERNPATH DART (contains Alpha-cypermethrin 100g/L)

This product is covered by the Control of Pesticides Regulations, 1986, and is labelled accordingly (MAPP 11970).

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16. Other Information

Health and Environmental Hazards

Text of R phrases mentioned in Section 2

R phrases:	R10	Flammable
	R20/21/22	Harmful by inhalation, in contact with skin and if swallowed
	R36	Irritating to the eyes
	R37	Irritating to the respiratory system
	R43	May cause sensitisation by skin contact
	R65	Harmful: may cause lung damage if swallowed
	R51/53	Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment

Recommended Uses: Agricultural/Horticultural Insecticide

Recommended Restrictions: Information about special precautions needed for bulk handling is available on request. When used in a mixture read the labels and safety data sheets of all components.

Further information:

Date of First Issue: 5th April 2004

Disclaimer:

The information contained in this MSDS is designed to give general health and safety guidance on the storage and transport of the substance/preparation to which it relates. Requirements arising from a Risk Assessment of the substance/preparation in a particular working environment should take precedence over any of the guidance contained in this MSDS where there is a difference in the information given. The information contained in this MSDS is accurate at the date of publication and will be updated as and when appropriate. Liability will not be accepted for any injury, loss or damage resulting from any failure to take account of information or advice contained in this MSDS.

Compiled in accordance with EC Directive 91/155/EEC and subsequent amendments EC Directives 93/112/EEC and 2001/58/EC.