



MATERIAL SAFETY DATA SHEET

Nufarm Number: 02998

Final 05/04/04

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SHIRLAN[®]

HEALTH HAZARD INFORMATION

Acute Effects

Eye

An eye irritant.

Skin

Contact with skin will result in irritation. A skin sensitiser. Repeated or prolonged skin contact may lead to allergic contact dermatitis.

Inhaled

Inhalation of vapours, mist or aerosols may produce respiratory irritation.

Swallowed

No adverse effects expected, however large amounts may cause nausea and vomiting.

Other Health Effects

Repeated or prolonged exposure may cause allergic disorders.

Chronic Effects

No data available.

First Aid

Eye

Flush eyes with plenty of water for 15 minutes holding eyelids open if necessary. Seek medical assistance.

Skin

Immediately flush body and clothes with large amounts of water. Remove contaminated clothing and footwear. Wash affected areas with soap and water. If a large area is affected seek medical assistance.

Inhaled

Remove patient to fresh air. Lay down and keep warm and rested. If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. Seek medical assistance immediately.

Swallowed

Never give anything by mouth to an unconscious person. If swallowed do NOT induce vomiting. For advice, contact the National Poisons Centre (0800 764 766). Seek medical assistance immediately.

Other First Aid

No other information available.

Advice to Doctor

Treat symptomatically.

Toxicity Data

	<u>Fluazinam technical:</u>
Acute oral LD ₅₀ (rat)	>5000mg/kg
Acute dermal LD ₅₀ (rat)	>200mg/kg
Inhalation LC ₅₀ (rat)	>0.55mg/L/4hr
Skin irritation	Severe irritant (rabbit), may cause sensitisation
Eye irritation	Severe irritant (rabbit)

Patch testing on 10 volunteers showed that the product caused a type IV allergic reaction. Symptoms observed include localised swelling itchiness and red spots in affected skin regions. Once exposure had stopped full recovery occurs within a short period of time. ADI (Acceptable Daily Intake) for humans is 0.004mg/kg/day.

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PRECAUTIONS FOR USE

Exposure Standards

No exposure limits have been specifically assigned for this product.

Engineering Controls

Use only in a well ventilated area. Keep containers closed when not in use.
Facilities storing or utilising this material should be equipped with an eyewash facility and safety shower.

Personal Protection

Avoid all personal contact.
Wear overalls, safety boots, safety goggles, gloves and a NIOSH approved organic vapour/particulate respirator.
Wash protective clothing before storage or reuse.
Wash thoroughly after handling and before eating, drinking or smoking.

Flammability

Not combustible.

Environment

Aquatic toxicity:
Very toxic to aquatic organisms.
Risk of bioaccumulation in an aquatic species is high.

LC ₅₀ (96h)	Salmo gairdneri	0.11mg/L
LC ₅₀ (96h)	Carp	0.15mg/L
EC ₅₀ (48h)	Selenastrum capricornatum (Algae)	0.54mg/L
EC ₅₀ (48h)	Daphnia magna	0.19mg/L

Terrestrial toxicity:
Harmful to terrestrial species

		<u>Fluazinam technical:</u>
Oral LD ₅₀	Bobwhite quail	1782mg/kg
Oral LD ₅₀	Mallard duck	4190mg/kg
Oral LD ₅₀	Bee	>0.1mg/bee (not toxic to bees)
Contact LD ₅₀	Bee	>0.2mg/bee

		<u>Fluazinam technical:</u>
<u>Soil toxicity:</u>		
LC ₅₀ (28d)	Worm	>1000mg/kg

Environmental Fate, Distribution and Persistence:
Half life in soil is 4 days
Not readily biodegradable in water (test: 5% CO₂, 84 days)

Avoid contaminating waterways.

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SAFE HANDLING INFORMATION

Storage and Transport

ROAD TRANSPORT: Environmentally Hazardous Substance, Liquid, N.O.S. (fluazinam)
UN#3082 Hazchem 2X
Class 9 Packaging Group III

SEA TRANSPORT: Environmentally Hazardous Substance, Liquid, N.O.S. (fluazinam)
UN#3082
Class 9 Packaging Group III

STORAGE: Store in original container in a cool, dry, ventilated place away from direct heat or direct sunlight. Store away from foodstuffs, children and animals. Keep container sealed when not in use.

Packaging and Labelling

1L & 5L plastic jerrycans.

Caution – Keep out of reach of children

Spills and Disposal

Spills: Wear protective clothing. Clear area of unprotected personnel.
Contain spill and absorb with sand, soil or absorbent granules. Do not allow product or washings to enter the waterways or sewer. If spill does enter waterways contact the local authority. Collect in an appropriate sealable labelled container for disposal in an approved landfill.

Product Disposal: To avoid disposal all attempts should be made to utilise the product completely in accordance with it's registered use. Dilute unusable product according to the label and pour onto fallow land. Prevent the product from entering natural water sources.

Container Disposal: Triple rinse container and add residue to spray tank. Burn if circumstances (especially wind direction) permit, otherwise, bury in landfill.

Reactivity Data

Stable for at least 2 years when stored in the original unopened container at ambient temperatures.

Fire/Explosion Hazard

Wear full protective clothing and self-contained breathing apparatus.

Extinguishing media: Water fog, fine water spray, foam dry agent (carbon dioxide, dry chemical powder)

Not combustible, however following evaporation of aqueous component residual material will burn if ignited. On burning will emit toxic fumes

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ADDITIONAL INFORMATION

CONTACT POINTS

NORMAL HOURS: Emergency Response Co-ordinator: (649) 268 2920
24Hr Tollfree Emergency No: Phone: 0800 651 911

IN AN EMERGENCY, DIAL 111 - FIRE OR POLICE
24Hr Emergency No: National Poisons Centre Phone: 0800 764 766

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