

Safety Data Sheet

Infosafe No™ 3NUG0 Issue Date : February 2022 ISSUED by NUFARMNZ

Product Name **CAPTAN 600 FLO**

1. Identification

GHS Product Identifier	CAPTAN 600 FLO
Product Code	02843
Product Type	Fungicide
Company Name	Nufarm NZ
Address	6 Manu Street, Otahuhu Auckland 2024 New Zealand
Telephone/Fax Number	Tel: 0-9-270 4150
Emergency phone number	0800 651 911
E-mail Address	nzinfo@nufarm.com
Recommended use of the chemical and restrictions on use	A fungicide for the control of certain fungous diseases of fruit, vegetables, ornamentals, turf, greenhouse crops and for certain soil borne diseases.
Other Information	This SDS describes, to the best of our knowledge, the properties of the concentrated product. The physical properties and some of the assessments do not apply to the properties of the product once it has been diluted for application. Acute health effects of the diluted product are likely to be much less severe.

2. Hazard Identification

GHS classification of the substance/mixture	DANGEROUS GOODS.
Other Information	6.1D acute toxicant, 6.5B sensitiser, 6.7B possible carcinogen, 8.3A eye corrosive, 9.1A aquatic toxicant, TOXICITY Harmful - may be harmful if swallowed, inhaled or absorbed through the skin. May cause sensitisation from prolonged skin contact. Limited evidence of a carcinogenic effect in animal studies. CORROSIVE Danger - this product is corrosive and may cause eye damage. ECOTOXIC Very toxic to aquatic organisms.

3. Composition/information on ingredients

Ingredients	Name	CAS	Proportion
	Captan	133-06-2	600 g/L
	Ingredients determined to be non-hazardous	-	10-30 %
	Water		To volume

4. First-aid measures

First Aid Measures	For advice contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor immediately. Begin artificial respiration if the victim is not breathing. Use mouth-to-nose rather than mouth-to-mouth. Obtain medical attention.
Inhalation	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.
Ingestion	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.
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.

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Eye contact Flush eyes with plenty of water for 15 minutes holding eyelids open if necessary. Seek medical assistance. Remove contact lenses, if present and easy to do.

First Aid Facilities Facilities storing or utilizing this material should be equipped with an eyewash facility and safety shower.

Advice to Doctor There is no specific antidote if ingested. Inhalation may cause lung oedema. Check for possible mucosal damage before performing gastric lavage. Treat central nervous system effects symptomatically. Contamination of eyes may require specialised ophthalmologic attention.

5. Fire-fighting measures

Suitable extinguishing media Water fog, foam, carbon dioxide or dry chemical.

Unsuitable Extinguishing Media Do not use water in a jet.

Hazards from Combustion Products Hazardous thermal decomposition products may include but not limited to: Oxides of sulphur, nitrogen and carbon; thiocarbonyl chloride, and hydrochloric acid.

Special Protective Equipment for fire fighters Full protective clothing and self-contained breathing apparatus.

Specific Methods Keep up wind. Do not allow washings to reach sewage or effluent systems.

Hazchem Code 2Z

Other Information Location Certificate: Not applicable
Hazardous Atmosphere Zone: Not applicable
Number of Fire Extinguishers: Not applicable

6. Accidental release measures

Spills & Disposal Wear protective clothing. Clear area of unprotected personnel. Contain spill and absorb with sand, soil or absorbent granules. If spill does enter waterways contact the local authority. Collect in an appropriate sealable container for disposal in an approved landfill.

Personal Protection For appropriate personal protective equipment (PPE), refer Section 8.

Environmental Precautions Prevent from entering drains, waterways or sewers.

7. Handling and storage

Precautions for Safe Handling Avoid skin and eye contact and inhalation of spray mist.
APPROVED HANDLER: This product must be under the control of an approved handler when applied in a wide dispersive manner; or used by a commercial contractor.
TRACKING: Is not required
RECORD KEEPING: Records of use as described in NZS 8409 Management of Agrichemicals must be kept if 3L or more is applied within 24 hours.
Do NOT apply onto or into water.

Conditions for safe storage, including any incompatibilities Keep out of reach of children.
Store in original container tightly closed and in a locked, dry, cool area away from foodstuffs. Storage must be in accordance with NZS 8409 Management of Agrichemicals.
Stores containing 100L of CAPTAN 600 FLO require secondary containment and are subject to signage, and more than 100L require emergency response plans.

Other Information Always read the label and any attached leaflet before use.
Aggregate Storage Volume Thresholds:
When stored with substances of the same hazard classification the aggregate quantity must be considered. For full details refer to the current NZS8409 Management of Agrichemicals and the HSNO Regulations.

8. Exposure controls/personal protection

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Occupational exposure limit values	No exposure limits (WES, TEL or EEL's) have been specifically assigned for this product. WES TWA for captan = 5mg/m ³
Appropriate engineering controls	Handle in well ventilated areas, generally natural ventilation is adequate.
Personal Protective Equipment	When opening the container, preparing spray and using the prepared spray wear safety goggles, waterproof gloves, a NIOSH approved half face mask with organic vapour cartridge + dust/mist prefilter. cotton overalls buttoned to the neck and wrist, and boots.
Hygiene Measures	Do not eat, drink or smoke while using. Remove protective clothing and wash hands and face thoroughly before meals and after work. Wash protective clothing daily after work.

9. Physical and chemical properties

Form	Liquid
Appearance	Off white viscous liquid
Solubility in Water	captan = 3.3mg/L @ 25°C
Specific Gravity	1.27g/mL
pH	2.5 - 7.0 (1% aqueous solution)
Vapour Pressure	Not determined (captan = <1.3mPa @ 25°C)
Flammability	Not flammable
Other Information	(SC) Suspension Concentrate

10. Stability and reactivity

Chemical Stability	Stable under normal conditions of handling and storage.
Conditions to Avoid	Captan is slowly hydrolysed at neutral pH and rapidly in alkali. Avoid open flame or other high temperature sources that might induce thermal decomposition.
Incompatible Materials	Avoid alkaline materials such as lime, Bordeaux mixture or lime sulphur and oils.
Possibility of hazardous reactions	Keep away from strong oxidising agents.
Hazardous Polymerization	Hazardous polymerisation will not occur.
Other Information	Non-corrosive (but captan's decomposition products are corrosive). Thermal half life = >4 years @ 80°C, 14.2 days @ 120°C).

11. Toxicological Information

Acute Toxicity - Oral	LD50 (rat) 9,000 mg/kg for captan technical
Acute Toxicity - Dermal	LD50 (rabbit) >4,500 mg/kg for captan technical
Acute Toxicity - Inhalation	LC50 (rat) (4hr) 0.688 mg/L for captan technical
Ingestion	May cause irritation to mouth and throat. Symptoms may include nausea and vomiting.
Inhalation	May irritate the respiratory tract.
Skin	Irritant. May cause sensitisation by skin contact.
Eye	Corrosive to ocular tissue (Captan)
Skin Sensitisation	May cause skin sensitization.
Carcinogenicity	Safe Work Australia has classified captan in the occupational environment as a Carcinogen Category 3 substance. This means that the substance is not classifiable as to carcinogenicity to humans. IARC (International Agency for Research on Cancer) has determined that the mechanism in rats and mice is

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unlikely to occur in humans; hence captan has been classified by IARC as Cat 3, not classifiable as to carcinogenicity to humans. The US EPA considers captan not likely to be a human carcinogen at levels that do not cause cytotoxicity and regenerative cell hyperplasia, therefore not likely to be a human carcinogen or pose cancer risks of concern when used in accordance with approved product labels.

Symptoms of over exposure may include, nausea, diarrhoea, difficulty in breathing, tearing of eyes, irritability, reduced urine production and possibly death on ingestion.

Possible risks of irreversible effects.

Chronic Effects

Captan is non-mutagenic (in-vivo), non-teratogenic and has no observed reproductive hazards. Repeat skin exposure may lead to contact dermatitis. Experimental animal trials using captan suggest carcinogenic potential (in mice only) at very high doses of captan (>1,000ppm)

Serious eye damage/irritation

Corrosive (rabbit) for captan technical

Skin

Irritant (rabbit) for captan technical

corrosion/irritation

Other Information

The Australian Acceptable Daily Intake (ADI) for captan for a human is 0.1 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 10 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species. (Ref: Comm. Dept. of Health and Ageing, Office of Chemical Safety, 'ADI List', March 2013).

12. Ecological information

Persistence and degradability

Rapidly biodegraded within a few days especially in wet conditions. TD50 c. 1 day (25°C, pH7.2, organic matter 1.2%)

Mobility

Captan does not leach to ground water

Environmental Fate

In mammals, the three chlorine atoms are cleaved under the influence of cellular sulphhydryl compounds. Trithiocarbamate, thiophosgene, and tetrahydrophthalimide are formed.

Bioaccumulative Potential

Captan does not bioaccumulate in aquatic organisms.

Basis for Assessment

Ecotoxicological data have not been determined specifically for this product. Data below is for the active ingredient unless otherwise stated.

Acute Toxicity - Fish

LC50 (96h): Brown trout = 0.0262mg/L for captan technical

Acute Toxicity - Daphnia

LC50 (48hr) for daphnia is 7-10 mg/L for captan technical.

Acute Toxicity - Other Organisms

LD50 (contact) 788µg/bee; (oral) 91µg/bee.
LD50: Bobwhite quail = 2,000-4,000mg/kg

13. Disposal considerations

Product Disposal

Dispose of product only by using according to the label, or at an approved landfill.

Container Disposal

Triple rinse empty container and add rinsate to spray tank. Recycle empty container. Otherwise crush and bury in a suitable landfill.

14. Transport information

Transport Information

It is good practice not to transport agricultural chemical products with food, food related materials and animal feedstuffs.

U.N. Number

3082

UN proper shipping name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. - (captan, 60%)

Transport hazard class(es)

9

Hazchem Code

2Z

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Packaging Method -
Packing Group III
EPG Number -
IERG Number 47
IMO Marine Pollutant Yes. Environmentally Hazardous Substance mark required.
Other Information Do not carry this product on a passenger service vehicle.
Segregation: Check the latest Land Transport Rule Dangerous Goods Rule 45001 for additional information. Sea transport may require additional segregation. Refer NZS5433 sea segregation for details.

15. Regulatory information

National and or International Regulatory Information Registered pursuant to the ACVM Act 1997, No. P7654
See www.foodsafety.govt.nz for registration conditions
Approved pursuant to the HSNO Act 1996, Approval Code HSR007770
See www.epa.govt.nz for approval controls.
Packaging & Labelling HARMFUL * CORROSIVE * ECOTOXIC - keep out of reach of children
Hazard Rating Systems NFPA/HMIS: 3-1-1

16. Other Information

Date of preparation or last revision of SDS January 2017
Contact Person/Point IN AN EMERGENCY, DIAL 111 - FIRE OR POLICE
24Hr Tollfree Emergency No: 0800 651 911
24Hr Emergency No: National Poisons Centre Phone: 0800 764 766
Revisions Highlighted 5 Yearly review carried out.
...End Of MSDS...

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