

Infosafe No™ 3NUG0 Issue Date : October 2024 ISSUED by NUFARMNZ

Product Name **CAPTAN 600 FLO**

Section 1 - Identification

Product Identifier	CAPTAN 600 FLO
Product Code	02843
Product Type	Fungicide
Company Name	Nufarm NZ
Address	Central Park, Building 3, Level 4, 666 Great South Road Ellerslie Auckland 1051 New Zealand
Telephone/Fax Number	Tel: 0-9-270 4150
Emergency Phone Number	0800 651 911
Email	nzinfo@nufarm.com
Recommended uses and any restrictions on use or supply	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.

Section 2 - Hazard(s) Identification

GHS classification of the substance/mixture	Acute inhalation toxicity: Category 4 Skin sensitization: Category 1 Carcinogenicity: Category 2 Serious eye damage Category 1 Hazardous to the aquatic environment acute Category 1 Hazardous to the aquatic environment chronic Category 1
Signal Word (s)	DANGER
Hazard Statement (s)	H302 Harmful if swallowed H312 Harmful in contact with skin H317 May cause an allergic skin reaction H318 Causes serious eye damage H332 Harmful if inhaled H351 Suspected of causing cancer H410 Very toxic to aquatic life with long lasting effects
Precautionary Statement – General	P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P103 Read carefully and follow all instructions.
Pictogram (s)	Corrosion, Exclamation mark, Health hazard, Environment



Precautionary Statement – Prevention	P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P264 Wash hands and face thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area. P272 Contaminated work clothing should not be allowed out of the workplace. P273 Avoid release to the environment. P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
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Infosafe No™ 3NUG0	Issue Date : October 2024	ISSUED by NUFARMNZ
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Product Name **CAPTAN 600 FLO**

Precautionary Statement – Response	<p>P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P308+P313 IF exposed or concerned: Get medical advice/attention.</p> <p>P310 Immediately call a POISON CENTER/doctor.</p> <p>P312 Call a POISON CENTER/doctor if you feel unwell.</p> <p>P321 Specific treatment (see on this label).</p> <p>P330 Rinse mouth.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/attention.</p> <p>P363 Wash contaminated clothing before reuse.</p> <p>P391 Collect spillage.</p> <p>P405 Store locked up.</p>
Precautionary Statement – Storage	
Precautionary Statement – Disposal	P501 Dispose of contents/container to an approved landfill.

Section 3 - Composition and Information on Ingredients

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

Section 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.
Eye	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.

Section 5 - Firefighting 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.

Infosafe No™ 3NUG0	Issue Date : October 2024	ISSUED by NUFARMNZ
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Product Name **CAPTAN 600 FLO**

Special protective equipment for fire-fighters	Full protective clothing and self-contained breathing apparatus.
Specific Methods	Do not allow washings to reach sewage or effluent systems. Keep up wind.
Hazchem Code	2Z
Decomposition Temperature	Information is not available.
Other Information	Location Certificate: Not applicable Hazardous Atmosphere Zone: Not applicable Number of Fire Extinguishers: Not applicable

Section 6 - Accidental Release Measures

Spills and 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.

Section 7 - Handling and Storage

Precautions for Safe Handling	Do not handle until all safety precautions have been read and understood. The person mixing or applying CAPTAN 600 FLO must be a 'Qualified Contractor' or a 'Qualified Person'. The spray mixture may also be prepared by a 'Qualified Loader'. It is the duty of the PCBU that a person who uses, handles, manufactures or stores a hazardous substance (including hazardous waste) is provided information, instruction and training in accordance with Regulation 4.5 of the Health and Safety at work (Hazardous Substances) Regulations 2017. Avoid skin and eye contact and inhalation of spray mist. This product must not be applied onto or into water. CERTIFIED HANDLER: Is not required. TRACKING: Is not required. RECORD KEEPING: Records of use as described in NZS 8409 Management of Agrichemicals must be kept if 3 litres or more of CAPTAN 600 FLO is applied within 24 hours.
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.

Section 8 - Exposure Controls and Personal Protection

Occupational Exposure Limits (OEL)	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 mixing or applying wear appropriate eye and respiratory protection, waterproof gloves, overalls 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.

Infosafe No™ 3NUG0	Issue Date : October 2024	ISSUED by NUFARMNZ
Product Name CAPTAN 600 FLO		

Section 9 - Physical and Chemical Properties

Form	Liquid
Appearance	Off white viscous liquid.
Odour	Information is not available.
Decomposition Temperature	Information is not available.
Melting Point	178°C for active ingredient captan.
Solubility in Water	3.3mg/L (25°C) for active ingredient captan.
Specific Gravity	1.27g/mL
pH	2.5 - 7.0 (1% aqueous solution)
Vapour Pressure	<1.3mPa (25°C) for active ingredient captan.
Vapour Density (Air=1)	Information is not available.
Odour Threshold	Information is not available.
Partition Coefficient: n-octanol/water	Kow logP = 2.8 (25°C) for active ingredient captan.
Flash Point	Information is not available.
Flammability	Not flammable.
Auto-ignition Temperature	Information is not available.
Flammable Limits - Lower	Information is not available.
Flammable Limits - Upper	Information is not available.
Initial Boiling Point and Boiling Range	Information is not available.
Kinematic Viscosity	Information is not available.
Particle Characteristics	Information is not available.
Other Information	(SC) Suspension Concentrate

Section 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).

Section 11 - Toxicological Information

Acute Toxicity - Oral	LD50 (rat) 9,000 mg/kg for for active ingredient captan.
Acute Toxicity - Inhalation	LC50 (rat) 0.688 mg/L for active ingredient captan.

Infosafe No™ 3NUG0	Issue Date : October 2024	ISSUED by NUFARMNZ
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Acute Toxicity - Dermal	LD50 (rabbit) >4,500 mg/kg for for active ingredient captan.
Ingestion	May cause irritation to mouth and throat. Symptoms may include nausea and vomiting.
Skin Corrosion/Irritation	Mild skin irritant (rabbit) for active ingredient captan. Repeat skin exposure may lead to contact dermatitis for active ingredient captan.
Serious Eye Damage/Irritation	Causes serious eye damage.
Respiratory Irritation	May irritate the respiratory tract.
Skin Sensitisation	May cause an allergic skin reaction.
Germ Cell Mutagenicity	Active ingredient captan is non-mutagenic (in-vivo) and non-teratogenic.
Carcinogenicity	Suspected of causing cancer.
Reproductive Toxicity	Active ingredient captan has no observed reproductive hazards.
STOT - Repeated Exposure	Information is not available.
Aspiration Hazard	Information is not available.
Health Hazard	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.
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: Aust Govt Dept. of APVMA, 'ADI List', Edition 1/2024).

Section 12 - Ecological Information

Persistence and Degradability	Active ingredient captan is rapidly biodegradable especially in wet conditions. DT50 c. 1 day (25°C, pH7.2, organic matter 1.2%) for active ingredient captan.
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) bluegill sunfish = 0.072mg/L for active ingredient captan.
Acute Toxicity - Daphnia	LC50 (48hr) 7-10 mg/L for active ingredient captan.
Acute Toxicity - Other Organisms	LD50 Bobwhite quail = 2,000-4,000mg/kg for active ingredient captan. LD50 (contact) 788µg/bee; (oral) 91µg/bee for active ingredient captan.

Section 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.

Section 14 - Transport Information

Transport Information	It is good practice not to transport agricultural chemical products with food, food related materials and animal feedstuffs.
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Infosafe No™ 3NUG0	Issue Date : October 2024	ISSUED by NUFARMNZ
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UN Number	3082
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. - (captan)
Hazard Class	9
Hazchem Code	2Z
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.

Section 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 and Labelling	KEEP LOCKED UP KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING

Section 16 - Any Other Relevant Information

Date of preparation or last revision of SDS	February 2022.
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	Various changes and updates made to the document to comply with GHS7. ...End Of MSDS...

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