Section 1 - Identification

CropSure Pty Ltd
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Laverton North VIC 3026 AUSTRALIA
Phone: 03 9931 2200
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Emergency Contact NZ: +64 800 700 112

Chemical nature: Fungicide containing captan.

Trade Name: **CropSure Captan 800WG Fungicide**

Product Use: Agricultural fungicide for use as described on the product label.

Creation Date: **October, 2022**

This version issued: **March, 2023** and is valid for 5 years from this date.

Poisons Information Centre: Phone 13 1126 from anywhere in Australia

Section 2 - Hazards Identification

Statement of Hazardous Nature

SUSMP Classification: S6

ADG Classification: Class 9: Miscellaneous Dangerous Goods.

UN Number: 3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

GHS Signal word: DANGER

Skin Sensitisation Category 1
Serious eye damage/eye irritation Category 1
Germ cell mutagenicity Category 1
Carcinogenicity Category 2
Hazardous to aquatic environment Short term/Acute Category 1

HAZARD STATEMENT:

H317: May cause an allergic skin reaction.
H318: Causes serious eye damage.
H340: May cause genetic defects.
H351: Suspected of causing cancer.
H400: Very toxic to aquatic life.

PREVENTION

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P220: Keep or store away from combustible materials.
P261: Avoid breathing dusts.
P262: Do not get in eyes, on skin, or on clothing.
P264: Wash contacted areas 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.
P280: Wear protective gloves, protective clothing and eye or face protection.

RESPONSE

P310: Immediately call a POISON CENTRE or doctor/physician.
P363: Wash contaminated clothing before reuse.
P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P352: IF ON SKIN: Wash with plenty of soap and water.
P304+P340: IF INHALED: Remove victim to fresh air and keep comfortable for breathing.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313: If exposed or concerned: Get medical advice.
P333+P313: If skin irritation or rash occurs: Get medical advice.
P370+P378: In case of fire: Use carbon dioxide, dry chemical, foam, water fog, to extinguish.

STORAGE

P405: Store locked up.

P410: Protect from sunlight.
P402+P404: Store in a dry place. Store in a closed container.
P403+P235: Store in a well-ventilated place. Keep cool.

DISPOSAL

P501: Dispose of contents and containers as specified on the registered label.

Emergency Overview

Physical Description & Colour: Light brown granulated solid.
Odour: Mild odour.

Section 3 – Composition and Information on Ingredients

Ingredients	CAS No	Conc, g/kg	TWA (mg/m^3)	STEL (mg/m^3)
Captan	133-06-2	800	0.5	not set
Other non hazardous ingredients	secret	to 1 kg	not set	not set

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

The SWA TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak "is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

Section 4 - First Aid Measures

General Information:

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call.

Inhalation: If inhalation occurs, contact a Poisons Information Centre. Urgent hospital treatment is likely to be needed. Remove source of contamination or move victim to fresh air. Apply artificial respiration if not breathing. If breathing is difficult, oxygen may be beneficial if administered by trained personnel, preferably on a doctor's advice.
Skin Contact: Gently brush away excess particles. If sensitising symptoms are experienced, remove victim from area and allow to breathe fresh air. If irritation persists, call a doctor or poisons information centre.
Eye Contact: Quickly and gently brush particles from eyes. Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for at least 20-30 minutes, by the clock, while holding the eyelid(s) open. Neutral saline solution may be used as soon as it is available. DO NOT INTERRUPT FLUSHING. If necessary, keep emergency vehicle waiting (show paramedics this MSDS and take their advice). Take care not to rinse contaminated water into the unaffected eye or onto face. If irritation persists, repeat flushing. Call a Poisons Information Centre or a doctor urgently. Take special care if exposed person is wearing contact lenses.
Ingestion: If swallowed, do NOT induce vomiting. Rinse mouth thoroughly with water and contact a Poisons Information Centre, or call a doctor at once. Give activated charcoal if instructed.

Section 5 - Fire Fighting Measures

Fire and Explosion Hazards: The major hazard in fires is usually inhalation of heated and toxic or oxygen deficient (or both), fire gases. There is little risk of an explosion from this product if commercial quantities are involved in a fire.
Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.
Extinguishing Media: In case of fire, use carbon dioxide, dry chemical, foam or water fog. Water fog or fine spray is the preferred medium for large fires. Try to contain spills, minimise spillage entering drains or water courses.
Fire Fighting: If a significant quantity of this product is involved in a fire, call the fire brigade. There is little danger of a violent reaction or explosion if significant quantities of this product are involved in a fire. Recommended personal protective equipment is liquid-tight chemical protective clothing and breathing apparatus.

Section 6 - Accidental Release Measures

Accidental release: In the event of a major spill, prevent spillage from entering drains or water courses. Evacuate the spill area and deny entry to unnecessary and unprotected personnel. Immediately call the Fire Brigade. Wear full protective chemically resistant clothing including eye/face protection, gauntlets and self contained breathing apparatus. See below under Personal Protection regarding Australian Standards relating to personal protective equipment. Suitable materials for protective clothing include rubber, PVC and Nitrile. Eye/face protective equipment should comprise as a minimum, protective goggles. If there is a significant chance that dusts are likely to build up in cleanup area, we recommend that you use a suitable dust mask. Use a P1 mask, designed for use against mechanically generated particles e.g. silica & asbestos.

Stop leak if safe to do so, and contain spill. Because of the toxicity of this product, special personal care should be taken in any cleanup operation. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Consider vacuuming if appropriate. Recycle containers wherever possible after careful cleaning. Refer to product label for specific instructions. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Full details regarding disposal of used containers, spillage and unused material may be found on the label. If there is any conflict between this SDS and the label, instructions on the label prevail. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

Section 7 - Handling and Storage

Handling: Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10. Take special care if handling this product over extended periods as it is a cumulative poison.

Storage: This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this schedule of poison. Store in a cool, well ventilated area. Check containers periodically for leaks. Containers should be kept closed in order to minimise contamination. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. Check packaging - there may be further storage instructions on the label.

Section 8 - Exposure Controls and Personal Protection

The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Occupational Protective Clothing: AS/NZS 4501 set 2008, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

SWA Exposure Limits	**TWA (mg/m^3)**	**STEL (mg/m^3)**
Captan	0.5	not set

The ADI for Captan is set at 0.1mg/kg/day. The corresponding NOEL is set at 10mg/kg/day. ADI means Acceptable Daily Intake

NOEL means No-observable-effect-level. Data from Australian ADI List, March 2017.

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

Ventilation: This product should only be used where there is ventilation that is adequate to keep exposure below the TWA levels. If necessary, use a fan.

Eye Protection: Your eyes must be completely protected from this product by splash resistant goggles with face shield. All surrounding skin areas must be covered. Emergency eye wash facilities must also be available in an area close to where this product is being used.

Skin Protection: You should avoid contact even with mild skin irritants. Therefore you should wear suitable impervious elbow-length gloves and facial protection when handling this product for lengthy periods. See below for suitable material types.

Protective Material Types: We suggest that protective clothing be made from the following materials: rubber, PVC, nitrile.

Respirator: If there is a significant chance that dusts are likely to build up in the area where this product is being used, we recommend that you use a suitable dust mask. Use a P1 mask, designed for use against mechanically generated particles e.g. silica & asbestos.

Eyebaths or eyewash stations should, if practical, be provided near to where this product is being handled commercially.

Section 9 - Physical and Chemical Properties:

Physical Description & colour:	Light brown granulated solid.
Odour:	Mild odour.
Freezing/Melting Point:	173-175°C (captan content)
Boiling Point:	No specific data. Expected to decompose before boiling.
Flash point:	Not flammable.
Upper Flammability Limit:	No data.
Lower Flammability Limit:	No data.
Autoignition temperature:	No data.

Flammability Class:	No data.
Volatiles:	No data.
Vapour Pressure:	No data.
Vapour Density:	Not applicable.
Specific Gravity:	0.65-0.75
Water Solubility:	Insoluble.
pH:	No data.
Volatility:	No data.
Odour Threshold:	No data.
Evaporation Rate:	Not applicable.
Coeff Oil/water Distribution:	No data
Particle Characteristics:	Granules.
Viscosity:	Not applicable.
Autoignition temp:	No data.

Section 10 - Stability and Reactivity

Reactivity: This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.
Conditions to Avoid: Keep isolated from combustible materials. Protect this product from light. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.
Incompatibilities: strong acids, strong bases, strong oxidising agents.
Fire Decomposition: Combustion forms carbon dioxide, and if incomplete, carbon monoxide and possibly smoke. Water is also formed. May form nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Occasionally hydrogen cyanide gas in reducing atmospheres. May form oxides of sulfur (sulfur dioxide is a respiratory hazard) and other sulfur compounds. Most will have a foul odour. May form hydrogen chloride gas, other compounds of chlorine. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.
Polymerisation: This product will not undergo polymerisation reactions.

Section 11 - Toxicological Information

Toxicity: **Acute toxicity:** The rat oral LD50 for Captan ranges from 8400 to 15,000 mg/kg, indicating very low acute toxicity. The mouse LD50 is 7000 mg/kg. Sheep showed no effect at doses of 200 mg/kg, but experienced deaths at 250 mg/kg. The inhalation LC50 (2-hour) in mice is 5.0 mg/L. Rabbits showed little or no skin sensitization to Captan, while guinea pigs were moderately sensitive. Workers exposed to high concentrations of Captan in air (6 mg/m3) experienced eye irritation including burning, itching, and tearing. Skin irritation also occurred in some cases.
Chronic toxicity: Rats fed up to 750 mg/kg/day of Orthocide for 4 weeks had decreased food intake and body weights. No deaths occurred in pigs given as much as 420 to 4000 mg/kg/day in the diet for 12 to 25 weeks, however, cattle given six doses of 250 mg/kg experienced varied toxic effects, including death.
Reproductive effects: Pregnant mice exposed by inhalation to high doses of Captan for 4 hours a day during days 6 to 15 of gestation showed significant mortality or weight loss. Foetal mortality accompanied these effects. Mice fed 50 mg/kg/day over three generations reproduced normally. Captan is unlikely to cause reproductive effects in humans at usual levels of exposure.
Teratogenic effects: Teratogenicity studies with rats, rabbits, hamsters, and dogs have given both negative and positive results. However, the weight of evidence suggests that Captan does not produce birth defects.
Mutagenic effects: Although Captan was mutagenic in some laboratory tests on isolated tissue cultures, the majority of evidence indicates that Captan is nonmutagenic.
Carcinogenic effects: There is strong evidence that Captan causes cancer in female mice and in male rats at high doses. In addition, Captan is chemically similar to two other pesticides, Folpet and Captafol, that have been shown to produce cancer in test animals. Tumours were associated with the gastrointestinal tract and, to a lesser degree, with the kidneys. Tumours appeared in the test animals at doses of about 300 mg/kg/day.
Organ toxicity: Most organ-specific effects are found in the kidneys of rats at and above doses of 100 mg/kg/day.
Fate in humans and animals: Studies in several animal species have shown that Captan is rapidly absorbed from the gastrointestinal tract and is rapidly metabolized. Residues are excreted primarily in the urine. Rats given Captan orally excreted a third in the faeces and half in the urine within 24 hours. A cow fed small amounts in its diet for 4 days had no Captan in the milk at a 0.01 mg/L detection limit, nor could any be detected in the urine at a 0.1 mg/L detection limit.
This product may affect lungs, gastrointestinal system, eyes, skin. Ingredients in this product have an established TWA, so exposure by inhalation should be avoided.

Major Health Hazards: The rat oral LD50 for Captan ranges from 8400 to 15,000 mg/kg, indicating very low acute toxicity. The mouse LD50 is 7000 mg/kg. Sheep showed no effect at doses of 200 mg/kg, but experienced deaths at

250 mg/kg. The inhalation LC50 (2-hour) in mice is 5.0 mg/L. Rabbits showed little or no skin sensitization to Captan, while guinea pigs were moderately sensitive. Workers exposed to high concentrations of Captan in air (6 mg/m3) experienced eye irritation including burning, itching, and tearing. Skin irritation also occurred in some cases. may cause an allergic skin reaction, causes serious eye damage, may cause genetic defects, suspected of causing cancer, toxic if inhaled. This product is a cumulative poison. Minor exposures over a period of time may lead to serious health problems.

Classification of Hazardous Ingredients

Ingredient	Health Hazard Statement Codes
Captan	H331, H318, H317, H340, H351, H400

- Acute toxicity – category 3
- Eye damage – category 1
- Skin sensitisation – category 1
- Germ cell mutagenicity – category 1B
- Carcinogenicity – category 2
- Hazardous to the aquatic environment (acute) – category 1

Potential Health Effects

Persons sensitised to Captan should avoid contact with this product.

Inhalation:

Short Term Exposure: Available data shows that the active constituent captan is toxic through inhalation, however due to the nature of this product, inhalation is not expected to be a significant risk during typical conditions. In addition product may be mildly irritating, although unlikely to cause anything more than mild transient discomfort.
Long Term Exposure: No data for health effects associated with long term inhalation.

Skin Contact:

Short Term Exposure: Classified as a potential sensitiser by skin contact. Exposure to a skin sensitiser, once sensitisation has occurred, may manifest itself as skin rash or inflammation, and in some individuals this reaction can be severe. In addition product may be irritating, but is unlikely to cause anything more than mild transient discomfort.
Long Term Exposure: No data for health effects associated with long term skin exposure.

Eye Contact:

Short Term Exposure: This product is corrosive to eyes. It will cause severe pain, and corrosion of the eye and surrounding facial tissues. Unless exposure is quickly treated, permanent blindness and facial scarring is likely.
Long Term Exposure: No data for health effects associated with long term eye exposure.

Ingestion:

Short Term Exposure: Significant oral exposure is considered to be unlikely. This product may be irritating to mucous membranes but is unlikely to cause anything more than transient discomfort.
Long Term Exposure: Long term minor exposures to this product may cause serious health effects.

Carcinogen Status:

SWA: Captan is classified by SWA as a Category 2 Carcinogen, suspected to be carcinogenic to humans.
See the SWA website for further details. A web address has not been provided as addresses frequently change.
NTP: No significant ingredient is classified as carcinogenic by NTP.
IARC: Captan is Class 3 - unclassifiable as to carcinogenicity to humans.
See the IARC website for further details. A web address has not been provided as addresses frequently change.

Section 12 - Ecological Information

This product is very toxic to aquatic life.
Effects on birds: Captan is practically nontoxic to birds. The LD50 is greater than 5000 mg/kg in mallard ducks and pheasants. The LD50 is 2000 to 4000 mg/kg in bobwhite quail. High doses administered for 90 days to chickens caused an 80% reduction in the number of eggs produced, but had no effect on the fertility or hatchability of the eggs produced.
Effects on aquatic organisms: Captan is very highly toxic to fish. The LC50 (96-hour) for technical Captan ranges from 0.056 mg/L in cutthroat trout and chinook salmon to 0.072 mg/L in bluegill. The LC50 for Captan in the aquatic invertebrate Daphnia magna is 7 to 10 mg/L, indicating that the compound is moderately toxic to this and other aquatic invertebrates. Captan has a low to moderate tendency to accumulate in living tissue. Fish exposed for 3 days to concentrations which would be expected in a pond following treatment of an adjacent watershed at a rate of 1kg/hectare, had no detectable residues of Captan. Estimates of the bioconcentration factor range from 10 to 1000.
Effects on other organisms: Captan is not toxic to bees when used as directed.

Environmental Fate:
Breakdown in soil and groundwater: Captan has a low persistence in soil, with a half-life of 1 to 10 days in most soil environments. Captan was not detected in field studies of its mobility at application rates of up to 42 kg active ingredient per hectare.
Breakdown in water: Captan is rapidly degraded in near neutral water. Half-lives of 23 to 54 hours and 1 to 7 hours have been reported at various acidities and temperatures. The effective residual life in water is 2 weeks.
Breakdown in vegetation: Captan is taken up through leaves and roots and translocated throughout the plant. Residual fungitoxicity remains for 23 days after application on potato leaves, but residues were below the detection limit within 40 days after application. Some varieties of apples, pears, lettuce seeds, celery, and tomato seeds may be injured by Captan at high doses.

Section 13 - Disposal Considerations

Disposal: This product may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to separate the contamination in some way. Only if neither of these options is suitable, we suggest that you contact a specialist disposal company to arrange disposal. Disposal by untrained personnel may cause a dangerous incident.

Section 14 - Transport Information

Not subject to the ADG Code when transported by Road or Rail in Australia, in packages 500kg(L) or less; or IBCs, but classed as Dangerous by IATA and IMDG/IMSBC when carried by Air or Sea transport (see details below).

UN Number: 3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Hazchem Code: 2Z
Special Provisions: 274, 331, 335, 375, AU01
Limited quantities: ADG 7 specifies a Limited Quantity value of 5 kg for this class of product.
Dangerous Goods Class: Class 9: Miscellaneous Dangerous Goods.
Packing Group: III
Packing Instruction: P002, IBC08, LP02

Class 9 Miscellaneous Dangerous Goods shall not be loaded in the same vehicle or packed in the same freight container with Dangerous Goods of Class 1 (Explosives).

Section 15 - Regulatory Information

AICS: All of the significant ingredients in this formulation are compliant with AICIS regulations.
The following ingredient: Captan, is mentioned in the SUSMP.

Section 16 - Other Information

This SDS contains only safety-related information. For other data see product literature.

Acronyms:

ADG Code	Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition)
AICS/AIIC	Australian Inventory of Industrial Chemicals
SWA	Safe Work Australia, formerly ASCC and NOHSC
CAS number	Chemical Abstracts Service Registry Number
Hazchem Code	Emergency action code of numbers and letters that provide information to emergency services especially firefighters
IARC	International Agency for Research on Cancer
NOS	Not otherwise specified
NTP	National Toxicology Program (USA)
SUSMP	Standard for the Uniform Scheduling of Medicines & Poisons
UN Number	United Nations Number

Please read all labels carefully before using product.

This SDS is prepared in accord with the SWA document “Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice” (July 2020) and GHS Revision 7

http://www.kilford.com.au/ Phone (02)8321 8866