


Safety Data Sheet

Captan 800 WG L9249 (Act 36 of 1947)

| 1) PRODUCT AND COMPANY IDENTIFICATION | |
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| Product name: | CAPTAN 800 WG |
| Other means of identification: | Not applicable |
| Chemical Name: | Captan: (Z)-2-tert-butylimino-3-isopropyl-5phenyl-1,3,5-thiadiazinan-4-one |
| Recommended use: | Fungicide |
| Restrictions on use: | Agriculture |
| UN No: | 3077 |
| Distributed by: | MERIDIAN AGRITECH P O BOX 436 MODDERFONTEIN TEL 011 8228509 FAX 011 8223494 MOBILE: 0834006056 www.agritech.co.za |
| Emergency Number: | POISON CENTRE (UNITAS HOSPITAL) 012 664 1100 TYGERBERG:021 931 6129 RED CROSS 021 689 5227 RAPID SPILL RESPONSE 0800 775 3305 |
| 2) HAZARDS IDENTIFICATION: | |
| Classification of the substance/mixture: | GHS Category: 5 Acute Toxicity Category 3 Eye Damage Category 1 Skin Sensitization Category 1 Respiratory Sensitization Category 1 Carcinogenicity Category 2 STOT RE Category 1 STOT RE Category 2 STOT SE Category 1 STOT SE Category 3 Aquatic Acute Category 1 |
| Label Elements: Globally Harmonized System, EU (GHS): | <p>Pictogram:</p>  <p>Signal Word: Danger</p> <p>Hazard Statements: H315: Causes skin irritation. H317: May cause an allergic skin reaction. H318: Causes serious eye damage. H319: Causes serious eye irritation. H331: Toxic if inhaled. H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335: May cause respiratory irritation. H350: May cause cancer.</p> |

According to Directive 67/548/EEC No. 1272/2008 [CLP]

H351: Suspected of causing cancer.
H370: Causes damage to organs (Lungs).
H372: Causes damage to organs through prolonged or repeated exposure (Lungs).
H373: May cause damage to organs through prolonged or repeated exposure (Lungs).
H400: Very toxic to aquatic life.

Precautionary Statements:

P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P261: Avoid breathing dust.
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, eye protection.
P302+P352: If on skin: Wash with plenty of water.
P304+P340: If inhaled: Remove person 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 so - continue rinsing.
P310: Immediately call a doctor or poison centre.
P321: Specific treatment (See First aid measures on this label)
P333+P313: If skin irritation or a rash occurs: Get medical advice/attention.
P362+P364: Take off contaminated clothing and wash it before reuse.
P405: Store locked up.
P501: Dispose of contents/container to an authorised waste collection point.

Hazard Symbols:

N: Dangerous for the environment.
Xn: Harmful
T: Toxic
Xi: Irritant

R-phrases(s):

R22: Harmful if swallowed.
R23: Toxic by inhalation.
R36: Irritating to eyes.
R40: Limited evidence of a carcinogenic effect.
R41: Risk of serious damage to eyes.
R42/43: May cause sensitization by inhalation and skin contact.
R45: May cause cancer.
R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R50: Very toxic to aquatic organisms.


S-phrases(s):


S1/2: Keep locked up and out of reach of children.
S3: Keep in a cool place.
S7: Keep container tightly closed.
S13: Keep away from food, drink and animal feeding stuffs.
S20/21: When using, do not eat, drink or smoke.
S23: Do not breathe dust.
S24/25: Avoid contact with the skin and eyes.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28: After contact with skin, wash immediately with plenty of water.
S35: This material and its container must be disposed of in a safe way.
S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.
S57: Use appropriate containment to avoid environmental contamination.
S61: Avoid release to the environment. Refer to special instructions/Safety data sheets.

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| 3) COMPOSITION / INFORMATION ON INGREDIENTS: | | | | |
| 3.1 Substances: Not applicable | | | | |
| 3.2 Mixtures: | | | | |
| Chemical name | Concentration | CAS No. | EC No. | Classification according to Regulation EC 1272/2008 (CLP) |
| Captan | 850 g/kg | 133-06-2 | 205-087-0 | Eye Dam Cat 1 (H318) Skin Sens Cat 1 (H317) Acute Tox Cat 3 (H331) Carc Cat 2 (H351) Aquatic Acute Cat 1 (H400) |
| Morwet EFW | 10 g/kg | 105864-15-1 | 600-693-5 | Skin Irrit Cat 2 (H315) Eye Irrit Cat 2 (H319) |
| Kaolin | 50 g/kg | 1332-58-7 | 310-194-1 | Skin Irrit Cat 2 (H315) Eye Irrit Cat 2 (H319) STOT RE Cat 1 (H372) (Lungs) STOT RE Cat 2 (H373) (Lungs) Resp. Sens Cat 1 (H334) Carc. Cat 1A (H350) (Inhalation) STOT SE Cat 1 (H370) (Lungs) STOT SE Cat 3 (H335) (Respiratory tract) |
| 4) FIRST AID MEASURES: | | | | |
| Description of First-Aid Measures: | | | | |
| Inhalation: | | Remove patient to fresh air. Loosen clothing around neck. Lie down and keep warm and rested. If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. Seek medical assistance if symptoms develop or persist. | | |
| Skin contact: | | Immediately remove contaminated clothing, wash body gently but thoroughly with water. Wash contaminated clothing thoroughly before re-use. Seek medical assistance if irritation persists. | | |
| Eye contact: | | Flush eyes with plenty of water for at least 15-20 minutes holding eyelids open. Remove contact lenses. Seek medical assistance if immediately. | | |
| Ingestion: | | Never give anything by mouth to an unconscious person. If safe to do so, rinse mouth out with water. Induce vomiting. If For advice, contact the National Poisons Information Centre (012 664 1100) (Unitas hospital). Make every effort to prevent vomit from entering the lungs by careful placement of the patient. Seek medical assistance immediately. | | |
| Most important symptoms and effects, both acute and delayed: | | Suspected of causing cancer. Inhalation: Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. Skin contact: May cause an allergic skin reaction. Eye contact: Causes serious eye damage. | | |
| Indication of any immediate medical attention and special treatment needed: | | Treat symptomatically and supportively. If ingested, perform gastric lavage and administer activated charcoal. | | |

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| 5) FIRE-FIGHTING MEASURES: | |
| Extinguishing Media: Unsuitable Extinguishing Media: Specific Hazards arising from the substance/mixture: Fire Fighting: Protective clothing: | <p>In case of a small fire: foam or dry chemical, carbon dioxide. In case of a large fire: Water spray, fog or regular foam.</p> <p>High volume water jet due to contamination risk.</p> <p>If involved in a fire, the dehydrated components may emit oxides of carbon, oxides of nitrogen, hydrogen chloride and hydrogen flouride.</p> <p>Remove spectators from surrounding area. Isolate the fire area and evacuate downwind. Use a recommended extinguishing agent for the type of surrounding fire. Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Contain fire control agents for later disposal. Avoid inhaling hazardous vapours and fumes from burning materials. Keep upwind. Remove container from fire area if possible and without risk. Water can be used to cool containers but must be contained for later disposal. Do not scatter the material. Dike fire control water. Dispose of extinguishing agent and spillage in a safe way at a later stage.</p> <p>Full protective clothing and self-contained breathing apparatus</p> |
| 6) ACCIDENTAL RELEASE MEASURES: | |
| Personal precautions, protective equipment and emergency procedures: Environmental precautions: Methods and material for containment and cleaning up: | <p>Avoid contact with skin and eyes and inhalation. For personal protection see Section 8. Prevent from entering drains, waterways or sewers.</p> <p>Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system. Do not allow to enter drains or watercourses. If contamination of water courses is unavoidable, report to the Police and the Department of Water/Environmental Affairs immediately.</p> <p>Do not eat, drink or smoke during the clean-up process. Clear area of unprotected personnel. Keep people and animals away. Reposition leaking containers to minimize further leakage. Use earthen bunds or absorbent bunding to prevent spreading of spillage. Collect spilled material with shovel, place into a clean container and cover container loosely.</p> <p>Deal with spillages immediately. Do not allow the product to enter drains or water sources. If contamination of drains, streams, watercourses etc. is unavoidable, then warn the local authorities immediately.</p> |
| 7) HANDLING & STORAGE: | |
| Precautions for Safe Handling: Conditions for Safe Storage, including any incompatibilities: | <p>Harmful by eye or skin contact and by inhalation or ingestion. Do not contaminate dams, rivers or streams, or any other bodies of water with this chemical or used containers.</p> <p>Wash hands thoroughly with soap and water before eating, drinking, chewing gum, smoking, using the toilet or breaks and immediately after handling the product. Do not eat, drink, smoke or apply cosmetics when there is a possibility of exposure to the product. Wash goggles or face shield and contaminated clothing thoroughly after each day's use. Suitable protective clothing should be worn when handling this product (see section 8)</p> <p>Store in the closed, original container in a dry, cool well-ventilated area out of direct sunlight and away from unauthorised persons, children, animals, foodstuffs and water supplies. Ensure that local regulations are complied with.</p> |
| 8) EXPOSURE CONTROL / PERSONAL PROTECTION: | |

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| Appropriate Engineering Controls: | It is essential to provide adequate ventilation. The measures appropriate for a particular work site depend on how this material is to be used as well as on the extent of exposure. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations at all times. | | | |
| Control Parameters: Occupational exposure limits: | | | | |
| <u>PERSONAL PROTECTIVE EQUIPMENT:</u> Clothing: | Ingredient | CAS# | Limit | Basis |
| | Captan | 133-06-2 | 5 mg/m ³ | ACGIH TWA |
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| Respiratory protection: | Cotton overalls buttoned to the neck and wrist and a washable hat, | | | |
| Gloves: | Full-facepiece respirator (Or goggles and half face piece respirator) Handle in well ventilated areas, generally natural ventilation is adequate. Elbow-length PVC gloves | | | |
| Eye protection: | Full-facepiece respirator (Or goggles and half face piece respirator) | | | |
| Emergency eye wash: | Where there is any possibility that an employee's eyes may be exposed to this substance, the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use. | | | |
| 9) PHYSICAL & CHEMICAL PROPERTIES: | | | | |
| Appearance: | Tan Granule | | | |
| Odour: | Characteristic | | | |
| Solubility: | Disperses in water | | | |
| pH: | 6.9 | | | |
| Odour threshold: | Not available | | | |
| Melting point / Freezing point | Not available | | | |
| Initial boiling point and boiling range | Not available | | | |
| Flash point: | Not applicable | | | |
| Evaporation rate: | Not applicable | | | |
| Flammability (solid, gas) | Not available | | | |
| Upper/ lower flammability or explosive limits: | Not available | | | |
| Vapour pressure: | Not available | | | |
| Vapour density: | Not available | | | |
| Relative density: | Not applicable | | | |
| Partition coefficient: n-octanol/water | Not available | | | |
| Auto-ignition temperature: | Not available | | | |
| Decomposition Temperature: | Not available | | | |
| Viscosity: | Not applicable | | | |
| 10) STABILITY & REACTIVITY: | | | | |
| Reactivity: | No hazardous reactions if stored and handled as indicated. | | | |
| Chemical Stability: | When stored appropriately this product should show no significant degradation for 2 years from the date of manufacture. | | | |
| Possibility of hazardous reactions: | Hazardous polymerization will not occur. | | | |
| Conditions to avoid: | Temperature extremes. | | | |
| Incompatible materials: | Alkalis and caustic products. | | | |
| Hazardous decomposition product(s): | Thermal decomposition generates hydrogen chloride, carbonyl sulphide, carbon disulphide and thiophosgene. | | | |
| 11) TOXICOLOGICAL INFORMATION: | | | | |
| Acute Toxicity: Oral: | LD ₅₀ >2 000 mg/kg (rats) (Calculated based on the formulated product) | | | |

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| Dermal: | LD ₅₀ >4000 mg/kg, rat. |
| Inhalation: | LC ₅₀ (4h): 4.968 mg/L (Technical captan). |
| Skin Corrosion/Irritation: | Mild irritant, may cause sensitizations. |
| Serious Eye Damage/Irritation: | May cause serious eye damage, |
| Respiratory or Skin Sensitization: | Product may cause mild skin sensitization. |
| Germ Cell Mutagenicity: | No data available |
| Carcinogenicity: | Suspected of causing cancer. |
| Reproductive Toxicity: | No data available |
| STOT-SE: | No data available |
| STOT-RE: | May cause damage to organs through prolonged or repeated exposure (Lungs). |
| Aspiration Hazard: | No data available |
| 12) ECOLOGICAL INFORMATION: | |
| Ecotoxicity: | |
| Birds: | LD ₅₀ for bobwhite quail is > 2 000 – 4 000 mg/kg |
| Fish: | LC ₅₀ (96hr) for bluegill sunfish is 0,072 mg/L. |
| Daphnia: | LC ₅₀ (48 hr) for daphnia is 7 – 10 mg/L. |
| Algae: | No data available |
| Worms: | No data available |
| Bees: | (Oral) 91 µg/bee; (contact) 788 µg/bee. |
| Other: | No data available |
| Persistence and Degradability: | In mammals, the three chlorine atoms are cleaved under the influence of cellular sulfhydryl compounds. Trithiocarbamate, thiophosgene, and tetrahydrophthalimide are formed. DT ₅₀ c. 1 d (25 °C, pH 7.2, o.m. 1.2%). |
| Bio-accumulative Potential: | No data available. |
| Mobility in Soil: | Soil K _d 3–8 (pH 4.5–7.2, o.m. 2.2–6.7%); |
| 13) DISPOSAL CONSIDERATIONS: | |
| Waste Disposal: | In accordance with local and national regulations. Do not pour untreated waste or surplus product into public sewers or where there is any danger whatsoever of run-off or seepage into water systems. Do not contaminate rivers, dams or any other water sources with this product or the used containers. Do not contaminate water, food or feed by disposal. Wastes resulting from the use of this product may be disposed of at an approved chemicals waste disposal facility. |
| Container Disposal: | Do not use this container for any other purpose. Empty containers and product should not be burnt. |
| 14) TRANSPORTATION INFORMATION: | |
| Road Transport ADR / IRD: | UN NUMBER: 3077 UN Proper Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (CAPTAN) Transport Hazard Class: 9 Miscellaneous Dangerous Goods Packaging group: III Labelling no: 9 Environmental Hazards: Not applicable Special Precautions for User: Read safety instructions, SDS and emergency procedures before handling. |
| Maritime Transport IMDG / IMO: | UN NUMBER: 3077 UN Proper Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (CAPTAN) Transport Hazard Class: 9 Miscellaneous Dangerous Goods Packaging group: III Labelling no: 9 Environmental Hazards: Marine Pollutant Special Precautions for User: Read safety instructions, SDS and emergency procedures before handling.  |
| Air Transport ICAO / IATA: | UN NUMBER: 3077 UN Proper Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (CAPTAN) Transport Hazard Class: 9 Miscellaneous Dangerous Goods |

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| | Packaging group: III Labelling no: 9 Environmental Hazards: Not applicable Special Precautions for User: Read safety instructions, SDS and emergency procedures before handling.  |
| Transport in Bulk (according to Annex II of MARPOL 73/78 and the IBC Code): | Not applicable |
| 15) REGULATORY INFORMATION: | |
| Safety, health and environmental regulations/legislation specific for the substance/mixture: | For the user of this plant-protective product applies: 'To avoid risks to man and the environment, comply with the instructions for use.' (Directive 1999/45/EC, Article 10, No. 1.2) |
| Chemical Safety Assessment: | Advice on product handling can be found in sections 7 and 8 of this safety data sheet. |
| 16) OTHER INFORMATION: | |
| <p>All information and instructions provided in this Safety Data Sheet (SDS) are based on the current state of scientific and technical knowledge at the date indicated on the present SDS and are presented in good faith and believed to be correct. This information applies to the product as such. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear.</p> <p>It is the responsibility of persons in receipt of this SDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with this product. If the recipient subsequently produces formulation(s) containing this product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from this SDS to their own SDS.</p> <p>The information contained herein is provided in good faith but makes no representation as to its comprehensiveness or accuracy. A properly trained person using this product intends this document only as a guide to the appropriate handling of the material. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.</p> <p>MERIDIAN AGRITECH MAKES NO REPRESENTATION OR WARRANTIES, EITHER EXPRESSES OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANT ABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, MERIDIAN AGRITECH (PTY) LTD WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.</p> <p>Date of issue: 14/06/2013 Date of revision: 05/03/2018</p> <p>Abbreviations and acronyms:</p> <ol style="list-style-type: none"> 1. CAS number: Chemical Abstracts Service number. 2. CLP: Classification, Labelling, Packaging. 3. LD₅₀: Lethal Dose for 50% of the test population. 4. LC₅₀: Lethal Concentration for 50% of the test population. 5. DT₅₀: Half-life 6. GHS: Globally Harmonised System (of Classification and Labelling of Chemicals). 7. ACGIH: American Conference of Government Industrial Hygienists. 8. STOT: Specific Target Organ Toxicity. 9. RE: Repeated Exposure. 10. SE: Single Exposure. <p>Literature References:</p> <ul style="list-style-type: none"> • GHS: www.ccohs.ca/oshanswers/chemicals/ghs.html • ECHA: https://echa.europa.eu/search-chemicals | |