

# MATERIAL SAFETY DATA SHEET

## Captan GOLD 80WDG

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### 1. IDENTIFICATION

Product name: **Captan GOLD 80WDG**  
Chemical name of active ingredient(s): N-Trichloromethylthio-4-cyclohexene-1,2-dicarboximide  
Manufacturer/ Registrant: Makhteshim Agan of North America, Inc.  
3120 Highwoods Boulevard, Suite 100  
Raleigh, NC 27604  
Phone: 1-919-256-9300  
Phone: 1-800-535-5053

For fire, spill, and/or leak emergencies, contact Infotrac:  
For medical emergencies and health and safety inquiries, contact Prosar: Phone: 1-877-250-9291

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

| COMMON NAME | CAS NO.  | %    | OSHA PEL | ACGIH TLV           | OTHER                        | NTP/IARC/OSHA CARCINOGEN |
|-------------|----------|------|----------|---------------------|------------------------------|--------------------------|
| Captan      | 133-06-2 | 78.2 | NE       | 5 mg/m <sup>3</sup> | 5 mg/m <sup>3</sup><br>NIOSH | IARC 3*                  |

\*IARC Group 3: The agent (mixture or exposure circumstance) is unclassifiable as to carcinogenicity to humans.  
NE: Not established

### 3. HAZARDS IDENTIFICATION

#### PHYSICAL PROPERTIES:

Appearance: Light tan, granule

Odor: Organic

**EMERGENCY OVERVIEW:** DANGER. Causes irreversible eye damage. Harmful if swallowed or inhaled. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Do not get in eyes. Avoid contact with skin and clothing. Avoid inhalation of dust or spray mist.

**PRIMARY ROUTES OF ENTRY:** Eye and skin contact, inhalation, and ingestion.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** Acute asthma and/or other chronic pulmonary diseases due to inhalation of vapors or spray mists.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Hydrogen chloride. Oxides of hydrogen, nitrogen, sulfur, carbon.

### 4. FIRST AID

|                                |   |
|--------------------------------|---|
| <b>IF IN EYES:</b>             | <ul style="list-style-type: none"><li>Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li><li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>Call a poison control center or doctor for treatment advice.</li></ul>  |
| <b>IF ON SKIN OR CLOTHING:</b> | <ul style="list-style-type: none"><li>Take off contaminated clothing.</li><li>Rinse skin immediately with plenty of water for 15 to 20 minutes.</li><li>Call a poison control center or doctor for treatment advice.</li></ul>  |
| <b>IF SWALLOWED:</b>           | <ul style="list-style-type: none"><li>Call a poison control center or doctor immediately for treatment advice.</li><li>Have a person sip a glass of water if able to swallow.</li><li>Do not induce vomiting unless told to by the poison control center or doctor.</li><li>Do not give anything by mouth to an unconscious person.</li></ul> |
| <b>IF INHALED:</b>             | <ul style="list-style-type: none"><li>Move person to fresh air.</li><li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li><li>Call a poison control center or doctor for further treatment advice.</li></ul>   |

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact PROSAR at 1-877-250-9291 for emergency medical treatment information.

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

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## 5. FIRE FIGHTING MEASURES

**FLASH POINT:** Will not flash.

**FLAMMABLE LIMITS:** N/A

**FIRE AND EXPLOSION HAZARD:** Can burn in fire, releasing irritating and toxic gases due to thermal decomposition or combustion.

**EXTINGUISHING MEDIA:** Use foam, dry chemical, carbon dioxide, or water spray when fighting fires involving this material.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Hydrogen chloride. Oxides of hydrogen, nitrogen, sulfur, carbon.

**FIRE-FIGHTING INSTRUCTIONS:** Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Dike and collect water used to fight fire to prevent environmental damage due to run off. Foam or dry chemical fire-extinguishing systems are preferred to prevent environmental damage from excessive water runoff.

**FIRE FIGHTING EQUIPMENT:** Self-contained breathing apparatus with full face-piece. Full fire fighting turn-out gear (Bunker gear).

## 6. ACCIDENTAL RELEASE MEASURES

**ACTION TO TAKE FOR SPILLS/LEAKS:** Clean up spills immediately, observing precautions described in Section 8 of this document. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Vacuum or sweep up material and place in appropriate container for reuse or disposal. After removal, flush contaminated area thoroughly with water. Pick up wash liquid with inert absorbent and place in a chemical waste container for disposal. This material is a water pollutant and should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water.

## 7. HANDLING AND STORAGE

**PRECAUTIONS TO BE TAKEN IN HANDLING:** Do not contaminate water, food, or feed by storage, disposal, or cleaning of equipment. Open dumping is prohibited. Do not reuse empty container.

**PRECAUTIONS TO BE TAKEN IN STORAGE:** Keep pesticide in original container. Keep container tightly closed when not in use. Protect from excessive heat. Store in a cool, dry place.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION, PACKAGING AND USE OF THIS PRODUCT. FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.**

**EYE PROTECTION:** Protective eyewear (e.g., goggles or full-face shield).

**SKIN PROTECTION:** Long-sleeved shirt and long pants, shoes plus socks.

**HAND PROTECTION:** Chemical-resistant gloves made of any waterproof material(except applicators driving motorized equipment) such as barrier laminate, butyl rubber, natural rubber, neoprene rubber, or nitrile rubber≥14 mils.

**RESPIRATOR REQUIREMENTS:** When handling in enclosed area where exposure limits may be exceeded, use a dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C).

**ADDITIONAL PROTECTIVE MEASURES:** Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

### **USER SAFETY RECOMMENDATIONS:**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

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- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**EXPOSURE GUIDELINES:** Refer to Section 2.

**ENGINEERING CONTROLS:** Refer to product label.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**PHYSICAL STATE:** Light tan, granule

**ODOR:** Organic

**BULK DENSITY:** 0.70 g/mL @ 20°C

**WATER SOLUBILITY:** insoluble (3.77 ppm at 25°C)

**VAPOUR PRESSURE:**  $2.01 \times 10^{-4}$  Pa at 50°C

**AUTO-IGNITION TEMPERATURE:** 174°C

**pH:** 9.4 in a 1% aqueous solution

**FLASH POINT:** Will not flash.

**EXPLOSION PROPERTIES:** The product structure is not potentially explosive and the water-based formulation contains no explosive materials.

**VISCOSITY:** N/A

**OXIDATION/REDUCTION:** No known oxidizing or reducing properties

### 10. STABILITY AND REACTIVITY

**CHEMICAL STABILITY:** Stable, however may decompose if heated.

**CONDITIONS TO AVOID:** Avoid exposure to excessive heat and high moisture conditions for prolonged periods.

**INCOMPATIBILITY WITH OTHER MATERIALS:** Alkaline and acidic conditions and materials

**HAZARDOUS DECOMPOSITION PRODUCTS:** Hydrogen chloride. Oxides of hydrogen, nitrogen, sulfur, carbon.

**HAZARDOUS POLYMERIZATION:** Product will not undergo polymerization.

### 11. TOXICOLOGICAL INFORMATION

#### ACUTE TOXICITY/IRRITATION STUDIES :

|                                    |                        |
|------------------------------------|------------------------|
| Acute Oral LD50 (Rat):             | >2,000 mg/kg           |
| Acute Dermal LD50 (Rat):           | >5,000 mg/kg           |
| Acute Inhalation LC50 (Rat):       | >Not available         |
| Eye Irritation (Rabbit):           | Corrosive              |
| Dermal Irritation (Rabbit):        | Mildly irritating      |
| Dermal Sensitization (Guinea Pig): | Slight skin sensitizer |

**MUTAGENIC DATA:** Mutagenic studies indicate that captan is either non-mutagenic or has very low mutagenicity in test animals.

**ADDITIONAL DATA:** Teratogenicity studies have been inconclusive and the EPA has concluded that captan does not produce birth defects.

### 12. ECOLOGICAL INFORMATION

**ENVIRONMENTAL SUMMARY:** This pesticide is toxic to fish. Do not apply directly to water or to areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.

#### ECOTOXICITY (Captan Technical):

|                        |   |
|------------------------|---|
| <b>Fish Toxicity:</b>  | 96 hour LC <sub>50</sub> , Rainbow trout-unknown ug/L<br>96 hour LC <sub>50</sub> , Bluegill-0.07 ug/L    |
| <b>Avian Toxicity:</b> | Oral LD <sub>50</sub> , Bobwhite quail->2,000 mg/Kg<br>Oral LD <sub>50</sub> , Mallard duck- >2,000 mg/Kg |
| <b>Bee Toxicity:</b>   | Non-toxic   |

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### 13. DISPOSAL CONSIDERATIONS:

**PESTICIDE DISPOSAL:** Do not contaminate water, food, or feed by disposal. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** Dispose of product containers, waste containers, and residues according to label instructions and local, state, and federal health and environmental regulations.

### 14. TRANSPORT INFORMATION:

#### DOT CLASSIFICATION:

**Package size <12.75 lbs.:** Not regulated

**Package size ≥12.75 lbs.:** UN 3077, Environmentally hazardous substances, solid, N.O.S. (Captan), 9, PGIII, RQ

#### INTERNATIONAL TRANSPORTATION:

##### IMO (vessel):

**Package size <12.75 lbs.:** UN 3077, Environmentally hazardous substances, solid, N.O.S. (Captan), 9, PGIII, Marine pollutant

**Package size ≥12.75 lbs.:** UN 3077, Environmentally hazardous substances, solid, N.O.S. (Captan), 9, PGIII, Marine pollutant, RQ

##### IATA (air):

**Package size <12.75 lbs.:** UN 3077, Environmentally hazardous substances, solid, N.O.S. (Captan), 9, PGIII, Marine pollutant

**Package size ≥12.75 lbs.:** UN 3077, Environmentally hazardous substances, solid, N.O.S. (Captan), 9, PGIII, RQ

### 15. REGULATORY INFORMATION:

#### SARA TITLE III CLASSIFICATION:

Section 302: Not applicable.

Section 311/312: Acute health hazard (immediate)

Section 313: Captan (78.2%) CAS#: 133-06-2

**CA PROPOSITION 65:** This product contains a material (captan) known to the State of California to cause cancer.

**CERCLA RQ:** Captan 10 lbs. (12.75 lbs. of product)

**RCRA CLASSIFICATION:** Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

**TSCA STATUS:** The ingredients of this product are listed on the TSCA inventory or are exempt.

### 16. OTHER INFORMATION:

| HAZARD RATINGS | NFPA | HMIS |            |
|----------------|------|------|------------|
| HEALTH:        | 3    | 3    | 0 LEAST    |
| FLAMMABILITY:  | 1    | 1    | 1 SLIGHT   |
| REACTIVITY:    | 1    | 1    | 2 MODERATE |
|                |      |      | 3 HIGH     |
|                |      |      | 4 SEVERE   |

**MSDS DATE:** 10-10-12. Supercedes versions dated 11-4-08, 8-14-08, 7-2-03 and 7-31-03. Changes made to Section 1, 5 and 14.

The information contained herein is given in good faith and is believed to be correct, but no warrant, express or implied, is made. Consult Makhteshim Agan of North America, Inc. for further information.