



# MATERIAL SAFETY DATA SHEET

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Please read the entire document. This Material Safety Data Sheet contains important environmental, health and toxicology information for your employees, and anyone who will use, transport, store, dispose of or handle this product. Please make sure this information is given to them. It also contains information to help you meet community right-to-know/emergency response reporting requirements under SARA Title III and many other laws. If you resell this product, this MSDS must be given to the buyer or the information contained herein must be incorporated in your MSDS. Changes have been made throughout this Material Safety Data Sheet.

## SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: CAPTAN 50 WP  
PRODUCT NUMBERS: NA  
EPA REGISTRATION NUMBER: NA  
SYNONYM(S): NA

### MANUFACTURER

TOMEN AGRO, Inc.  
100 First Street  
San Francisco, CA 94105

### EMERGENCY TELEPHONE NUMBERS

HEALTH EMERGENCY (24 hr.):  
1-800-228-5635 ext. 174 or  
1-612-221-3999 ext. 174  
SPILL (24 hr): CHEMTREC: 1-800-424-9300

## SECTION 2: CONFIRMATION/INFORMATION ON INGREDIENTS

PRODUCT NAME	CAS #	EXPOSURE LIMITS	WEIGHT PERCENT
<b>Active Ingredient:</b>			
Captan: N-[trichloromethyl]thio]-4-cyclohexene-1, 2-dicarboximide	000133-06-2	NDA	50
<b>Inert Ingredients*</b>			

\* Inert ingredients are any substance other than an active ingredient contained in this product. Only those inert ingredients considered hazardous are listed. The identity of any other substances are withheld because they are considered trade secrets. Specific information on the inert ingredients for the management of exposures, spills, or safety assessments can be obtained by the treating physician or nurse by calling 1-800-228-5635 Ext. 174 or 1-612-221-3999 Ext. 174.

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**SECTION 3: HAZARDS IDENTIFICATION**

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**EMERGENCY OVERVIEW**

<b>WARNING:</b>	-	<b>MAY CAUSE SENSITISATION BY SKIN CONTACT</b>
	-	<b>IRRITATING TO EYES</b>
	-	<b>VERY TOXIC TO FISH</b>
	-	<b>KEEP OUT OF REACH OF CHILDREN</b>

**POTENTIAL HEALTH EFFECTS****Acute Toxicity**

**Eye:** This product is expected to cause severe eye irritation. The degree of injury will depend on the amount and duration of the contact and the speed and thoroughness of the first aid treatment.

**Skin:** Based on an evaluation of the ingredients and/or similar products, this product is not expected to cause skin irritation. The degree of injury will depend on the amount and duration of the contact and the speed and thoroughness of the first aid treatment. This product may cause dermal sensitization. This product is expected to be minimally toxic when absorbed through the skin. The degree of injury will depend on the amount of material absorbed and the speed and thoroughness of first aid treatment.

**Ingestion:** This product is expected to be minimally toxic when ingested. The degree of injury will depend on the amount of material absorbed and the speed and thoroughness of first aid treatment.

**Inhalation:** This product is expected to be toxic when inhaled. The degree of injury will depend on the amount of material absorbed and the speed and thoroughness of first aid treatment.

**Chronic Toxicity (Including Cancer):** Captan Technical was not oncogenic in the rat in a lifetime dietary study. In the lifetime mouse dietary study Captan Technical did produce a significant increase in tumors of the small intestine (especially the duodenum) after repeated exposure at high doses. This threshold oncogenic response has been shown to be due to a chemical irritation of the intestinal mucosa at the high doses used in the studies and not a genotoxic effect.

**Teratology (Birth Defects) Information:** Captan Technical was fetotoxic (not teratogenic) in animal studies.

**Reproduction Information:**

For complete discussion of the toxicology data from which this evaluation was made, refer to Section 11.

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**SECTION 4: FIRST AID MEASURES**

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**EMERGENCY NUMBER:** 1-800-228-5635 Ext. 174 or 1-612-221-3999 Ext. 174

**EYES:** Flush eyes immediately with fresh water or eyewash solution for at least 10 minutes while holding the eyelids open. Remove contact lenses if worn. Get medical attention immediately.

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**SKIN:** DO NOT ADMINISTER FIRST AID WITHOUT WEARING ADEQUATE SKIN PROTECTION. Remove contaminated clothing immediately. Wash skin with plenty of soap and water. Wash contaminated clothing.

**INGESTION:** If swallowed drink 1 to 2 glasses of water and induce vomiting by touching the back of the throat with finger. If possible contact a physician, poison control center, or emergency center before inducing vomiting. Do not induce vomiting or give anything by mouth to an unconscious person. Take person and product container to the nearest emergency treatment center.

**INHALATION:** If inhaled remove patient from exposure, keep warm and at rest. Obtain immediate medical attention.

**FURTHER MEDICAL TREATMENT:** Symptomatic treatment and supportive therapy as indicated.

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**SECTION 5: FIRE FIGHTING MEASURES**

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**FLASH POINT:** NA                      **Method:** NA  
**AUTOIGNITION:** NDA  
**EXTINGUISHING MEDIA:** Foam, carbon dioxide, dry powder or halon extinguishant, and water-fog;  
**FLAMMABLE LIMITS** (% by volume in air): Lower: NDA    Upper: NDA

**NFPA RATINGS:** Health: 4; Flammability: 2; Reactivity: 2; Special: NDA  
(Least-0, Slight-1, Moderate-2, High-3, Extreme-4). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association, NFPA.

**FIRE FIGHTING INSTRUCTIONS:** Keep fire exposed containers cool by spraying with water. Contain run-off water with, for example, temporary earth barriers. Very toxic to fish. A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions.

**HAZARDOUS COMBUSTION PRODUCTS:** This material can form flammable dust clouds at elevated temperatures.

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**SECTION 6: ACCIDENTAL RELEASE MEASURES**

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**EMERGENCY PHONE NUMBER:** 1-800-228-228-5635 Ext. 174 or 1-612-221-3999 Ext. 174

**FOR SPILLS ON LAND:** Ensure suitable personal protection during removal of spillage. This means wearing a face mask that gives protection against toxic dusts, eye protections, chemically resistant gloves, boots and coveralls.

**CONTAINMENT:** Avoid runoff into storm sewers or other bodies of water. Very toxic to fish.

**CLEANUP:** Clean up spill immediately. Cover spillage with moist sand, soil or sawdust. Transfer to a container for disposal. Wash the spillage area with water. Washings must be prevented from entering surface water drains.

**FOR SPILLS IN WATER:**

**CONTAINMENT:** This material is very toxic to fish. Spillage or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body.

**CLEANUP:** Remove contaminated water for removal or treatment.

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**SECTION 7: HANDLING AND STORAGE**

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It is a violation of federal law to use this product in a manner inconsistent with its labeling. Read entire label. Use strictly in accordance with label precautionary statements and directions.

AVOID contact with skin and eyes. DO NOT breath dust. When using do not eat, drink or smoke. Wash face and hands before eating, drinking or smoking.

Keep in original containers, tightly closed, out of reach of children. Keep away from food, drink, and animal feeding stuffs. Keep away from frost.

Storage life: Physically and chemically stable for a least 2 years when stored in the original unopened sales container at ambient temperatures.

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**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

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**EYE PROTECTION:** Do not get this material in your eyes. Eye contact can be avoided by wearing chemical eye wear.

**RESPIRATORY/VENTILATION REQUIREMENTS:** Wear suitable respiratory protective equipment if exposure to levels above the occupational exposure limit is likely.

Use this material only in well-ventilated areas.

**SKIN PROTECTION:** Wear suitable protective clothing, gloves and eye/face protection.

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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

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<b>APPEARANCE:</b>	Free flowing powder, tan colour	<b>DISSOCIATION CONSTANT:</b>	NDA
<b>ODOR:</b>	NA	<b>OCTANOL/WATER PARTITION COEFFICIENT:</b>	NA
<b>MELTING POINT:</b>	NA	<b>pH:</b>	NA
<b>BOILING POINT:</b>	NA	<b>CORROSION CHARACTERISTICS:</b>	NDA
<b>DENSITY/BULK:</b>	190-290 kg/m3	<b>MINIMUM IGNITION TEMPERATURE:</b>	425-450°C
<b>SPECIFIC GRAVITY:</b>	NA	<b>OXIDISING PROPERTIES:</b>	NA
<b>SOLUBILITY:</b>	Dispersible		
<b>VAPOR PRESSURE:</b>	NA		

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**SECTION 10: STABILITY AND REACTIVITY**

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**CHEMICAL STABILITY** : NDA**INCOMPATIBILITY** : NDA**HAZARDOUS DECOMPOSITION PRODUCTS** : Combustion or thermal decomposition will evolve toxic and irritant vapors.**HAZARDOUS POLYMERIZATION** : NDA**IMPACT EXPLODABILITY** : NDA**OXIDATION/REDUCTION PROPERTIES** : NDA

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**SECTION 11: TOXICOLOGICAL INFORMATION**

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**ACUTE** (Product Specific Information)**Eye Irritation:** This product is highly irritating to eyes. Severe/very severe irritant to rabbit eyes.**Skin Irritation:** Practically non-irritant.**Dermal Sensitization:** By analogy with a similar substance this material is likely to be a skin sensitizer.**Dermal Toxicity:** Low dermal toxicity. The dermal LD50 of Captan 50WP in rabbits is >2000 mg/kg b.w.**Oral Toxicity:** Low oral toxicity. The oral LD50 of Captan 50WP in rats is >6000 mg/kg b.w.**Inhalation Toxicity:** Low toxicity under normal conditions of handling and use.**SUBCHRONIC:****CHRONIC/CARCINOGENICITY:** Captan is reported as producing high dose threshold intestinal tumors in mice. This is not thought to be a risk to man under normal conditions of handling and use.**TERATOLOGY/DEVELOPMENTAL TOXICITY:****REPRODUCTION:****MUTAGENICITY:****NEUROTOXICITY:**

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**SECTION 12: ECOLOGICAL INFORMATION**

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**ENVIRONMENTAL FATE AND DISTRIBUTION:****AVIAN TOXICITY:**

Bobwhite quail:	Oral LD50
Bobwhite quail:	Oral LD50
Mallard duck:	Dietary LD50

**AQUATIC ORGANISM TOXICITY:**

Rainbow Trout:	96-hour LC50 = 100 ug/l
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Due to short persistence in water, this product is unlikely to be hazardous to aquatic life.

**OTHER NON-TARGET ORGANISM TOXICITY:**

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**SECTION 13: DISPOSAL CONSIDERATIONS**

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**END USERS MUST DISPOSE OF ANY UNUSED PRODUCT AS PER THE LABEL RECOMMENDATIONS.**

Do not contaminate ponds, waterways or ditches with chemical or used containers. Surplus material must be disposed of as detailed in the "Guidelines for the avoidance, limitation and disposal of pesticide waste on the farm" GIFAP, 1987.

**DISPOSAL METHODS:** Empty containers should be washed and discarded. Empty containers should not be used for other purposes. Disposal should be in accordance with local, state or national legislation.

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**SECTION 14: TRANSPORT INFORMATION**

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<b>D.O.T. SHIPPING NAME:</b>	Environmentally Hazardous Substance, solid, N.O.S
<b>TECHNICAL SHIPPING NAME:</b>	Captan 50%
<b>PACKING GROUP:</b>	III
<b>D.O.T. HAZARD CLASS:</b>	9
<b>U.N./N.A. NUMBER:</b>	UN3077
<b>PRODUCT RQ (lbs):</b>	10 lbs. (4.54 kg)
<b>D.O.T. LABEL:</b>	Class 9 "miscellaneous hazardous material"
<b>D.O.T. PLACARD:</b>	Class 9 "miscellaneous hazardous material"
<b>MARINE POLLUTANT:</b>	Yes
<b>IMO:</b>	
<b>IMDG CLASS:</b>	9 miscellaneous Dangerous Substance
<b>PROPER SHIPPING NAME:</b>	Environmentally Hazardous Substance, Solid, N.O.S. (contains Captan 50%) Marine Pollutant, RQ
<b>EUROPEAN ROAD:</b>	
<b>CLASS:</b>	9
<b>ITEM NO.:</b>	12(c)

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**SECTION 15: REGULATORY INFORMATION**

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**REGULATIONS UNDER FIFRA:** All pesticides are governed under FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act). Therefore, the regulations presented below are pertinent only when handled outside of the normal use and applications of pesticides. This includes waste streams resulting from manufacturing /formulation facilities, spills or misuse of products, and storage of large quantities of products containing hazardous or extremely hazardous substances.

**U.S. FEDERAL REGULATIONS:**

<b>OSHA Status:</b>	NONE
<b>RCRA Status:</b>	NONE
<b>TSCA Status:</b>	NONE
<b>CERCLA Reportable Quantity:</b>	NONE
<b>SARA Title III Status:</b>	
<b>SARA 311 CATEGORIES</b>	<ol style="list-style-type: none"><li>1. Immediate (Acute) Health Effects; YES</li><li>2. Delayed (Chronic) Health Effect; YES</li><li>3. Fire Hazard; NO</li><li>4. Sudden Release of Pressure Hazard; NO</li><li>5. Reactivity Hazard; NDA</li></ol>

**STATE REGULATIONS:** Each state may promulgate standards more stringent than the federal government. This section cannot encompass an inclusive list of all state regulations. Therefore, the user should consult state or local authorities.

**EEC REGULATIONS:**

<b>EEC Classification:</b>	IRRITANT
<b>Risk Phrases:</b>	R43: May cause sensitization by skin contact. R36: Irritating to eyes.
<b>Safety Phrases:</b>	S2: Keep out of reach of children S13: Keep away from food, drink and animal feeding stuffs. S20/21: When using do not eat, drink or smoke. S24: Avoid contact with skin.

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**SECTION 16: OTHER INFORMATION**

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<b>REASON FOR ISSUE:</b>	New MSDS
<b>PREPARED BY:</b>	Scott Mobley
<b>APPROVAL DATE:</b>	25 February 1997
<b>SUPERSEDES DATE:</b>	NA
<b>MSDS NUMBER:</b>	CP-008

The information in this MSDS is based on data available to us as of the revision data given herein, and believed to be correct. Contact Tomen's Manager of Environment, Health and Safety at (415) 536-3476, Fax: (415) 284-9884 to determine if additional data and information have become available since the revision date.

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