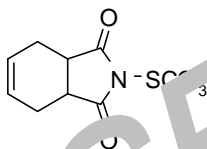


Material Safety Data Sheet

Product Name: Captan 80% WDG

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name: Captan 80% WDG
Formulation: WDG
CAS: 133-06-2
Chemical Name: N-(trichloromethylthio)cyclohex-4-ene-1,2-dicarboxamide
Molecular Weight: 300.6
Chemical Formulation: C₉H₈Cl₃N₂O₂
Chemical Structure:



Uses: Controls a wide range of fungal diseases. Used on a large number of other crops. Used also as a seed treatment or root dip on maize, ornamentals, vegetables, oilseed rape, and other crops.

Manufacturer: Nanjing Essence Fine-Chemical Co., Ltd
Address: 5th Floor, Suoye Road 18#, Nanjing, China
Telephone Number: +86 25 86465997
 +86 25 86466001
Fax Number: +86 25 86455985
Website: www.essencechem.com

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Component Name</u>	<u>CAS-No.</u>	<u>Average by Weight</u>
Captan	133-06-2	80%

SECTION 3. HAZARDS IDENTIFICATION

Eye Contact: Causes severe eye irritation.
Skin Contact: Not expected to present a significant skin hazard.
Inhalation: Avoid breathing dusts or spray mist.

Ingestion:	May be harmful if swallowed or inhaled.
Primary route of exposure	Vapours inhalation. Skin contact.
Risk phrases:	Harmful by inhalation and if swallowed. Harmful: may cause lung damage if swallowed.

SECTION 4. FIRST AID MEASURES

Eye Contact:	Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
Skin Contact:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes.
Inhalation:	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
Swallowing:	Call a poison control center or doctor immediately for treatment advice. Do not give any liquid to the person. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious or convulsing person.
Note Physician:	Cause acetyl cholinesterase inhibition.

SECTION 5. FIRE FIGHTING MEASURES

Flashpoint:	Will not flash.
Safeguards:	Wear full protective clothing and self-contained breathing apparatus.
Extinguishing Media:	Use foam, dry chemical, carbon dioxide, or water spray when fighting fires involving this material.
Fire fighting instructions:	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 run off.
Fire fighting equipment:	Self-contained breathing apparatus with full facepiece. Full fire fighting turn-out gear.

Hazardous combustion products: Hydrogen chloride. Oxides of nitrogen, hydrogen, carbon, sulfur.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Safeguards: Wear full protective clothing and self-contained breathing apparatus.

Clean-up Procedure: Shovel or sweep spilled material up, avoiding the formation of a dust cloud. Place in sealable containers then dispose. If possible, reuse the material for intended use.. Do NOT flush to drains or sewers. Do NOT contaminate streams, rivers or water courses. Following on-farm use, single rinse bags before disposal. Add rinsings to spray tank. Do NOT dispose of undiluted chemical on-site. Puncture, shred and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should NOT be burned.

SECTION 7. HANDLING AND STORAGE

Handling: Do not ingest. Do not breathe dust. Avoid contact with eyes. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as acids.

Storage: Hygroscopic. Air Sensitive. Keep container tightly closed. Keep container in a cool, well-ventilated area.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Ensure adequate ventilation. Avoid raising a dust cloud.

Personal Protection: May irritate the eyes. When opening the container and mixing, wear face shield or goggles. If product in eyes, wash it out immediately with water. Wash hands after use. After each days use, wash face shield or goggles.

Workers should NOT enter treated areas until spray has dried. When prior entry is necessary, wear cotton overalls buttoned to the neck and wrist and a washable hat and chemical resistant gloves. Clothing must be laundered after each day's use.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Solid
Colour:	Off-white
Odour:	Organic
PH :	4-7
Bulk density:	70 g/mL @ 20 degrees C
Vapor pressure:	2.01 x 10 ⁻⁴ Pa at 50 degrees C
Solubility in water:	Insoluble

SECTION 10. STABILITY AND REACTIVITY

Stability:	Stable, however may decompose if heated.
Hazardous decomposition:	According to process conditions, hazardous decomposition products may be generated. Thermal decomposition generates: Carbon dioxide, Carbon monoxide, Halogenes, Hydrochloric acid, Nitrogen oxide.
Hazardous reaction:	May release flammable gas es.
Incompatibility:	Alkaline and acidic conditions and materials.

SECTION 11. TOXICOLOGY AND HAZARD INFORMATION

Rat oral LD50 :	>2000mg/kg
Rabbit LD50:	>5000 mg/kg
Rat Inhalation LC 0:	>1.0 mg/l
Mutagenicity :	Mutagenic studies indicate that captan is either non-mutagenic or has very low mutagenicity in test animals.
Carcinogenicity:	The EPA has classified captan as a probable human carcinogen due to evidence of intestinal tumors in lab studies and captan's chemical similarity to other known carcinogens.

SECTION 12. ECOLOGICAL INFORMATION

Environmental summary:	This pesticide is toxic to fish. Do not apply directly to water. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not clean equipment or dispose of equipment washwaters in a manner that will contaminate water resources.
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Fish toxicity:	96 hour LC50, Rainbow trout - unknown ug/L
	96 hour LC50, Bluegill - 0.07 ug/L
Avian toxicity:	Oral LD50, Bobwhite quail - > 2,000 mg/Kg
	Oral LD50, Mallard duck - > 2,000 mg/Kg
Bee toxicity:	Non-toxic.

SECTION 13. DISPOSAL CONSIDERATIONS

Product disposal: Dispose of this material and its container at hazardous or special waste collection point. Dispose in a safe manner in accordance with local regulations.

SECTION 14. TRANSPORT INFORMATION

Shipping name: Environmentally Hazardous Substance, Solid, N.O.S., UN 3077, PG II.

UN: 3077

Class: 9

Packing group: III

SECTION 15. REGULATORY INFORMATION

R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.

R36: Irritating to eyes.

S2: Keep out of the reach of children.

S13: Keep away from food, drink and animal foodstuffs.

S23: Do not breathe vapour/mist.

S36/37: Wear suitable protective clothing and gloves.

SECTION 16. OTHER INFORMATION

The information presented herein is based on available data from reliable sources and is correct to the best of Micro Flo's knowledge. Micro Flo makes no warranty, express or implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific

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