



Safety Data Sheet

Issue Date: 10-Oct-2012

Revision Date: 17-Sept-2015

Version 2

1. IDENTIFICATION

Product Identifier

Product Name

Captan Gold 4L

Other means of identification

SDS #

ADAMA-167

Registration Number(s)

EPA Reg. No. 66222-257

UN/ID No

UN3082

Recommended use of the chemical and restrictions on use

Recommended Use

EPA registered pesticide.

Details of the supplier of the safety data sheet

Manufacturer Address

Makhteshim Agan of North America, Inc. (d/b/a ADAMA)
3120 Highwoods Blvd., Suite 100
Raleigh, NC 27604
1-919-256-9300

Emergency Telephone Number

Emergency Telephone (24 hr)

For fire, spill and/or leak contact INFOTRAC:
1-800-535-5053 (North America) 1-352-323-3500 (International)
For medical emergencies and health/safety inquiries, contact PROSAR:
1-877-250-9291

2. HAZARDS IDENTIFICATION

This chemical is a product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-EPA registered chemicals. Please see Section 15 for additional EPA information.

Appearance Tan liquid

Physical State Liquid

Odor Mild

Classification

Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1

Signal Word

Danger

Hazard Statements

Harmful if inhaled
Causes serious eye damage
May cause an allergic skin reaction

**Precautionary Statements - Prevention**

Use personal protective equipment as required
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Use only outdoors or in a well-ventilated area
 Contaminated work clothing must not be allowed out of the workplace
 Wear protective gloves

Precautionary Statements - Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 Immediately call a poison center or doctor/physician
 IF ON SKIN: Wash with plenty of soap and water
 If skin irritation or rash occurs: Get medical advice/attention
 Wash contaminated clothing before reuse
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other Hazards

Very toxic to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Captan	133-06-2	38.75

4. FIRST-AID MEASURES

First Aid Measures

General Advice	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.
Skin Contact	Take off immediately all contaminated clothing. Wash skin with soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Inhalation	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Give oxygen if breathing is difficult. If breathing has stopped, call 911, give artificial respiration. Seek medical advice.
Ingestion	Immediately call a poison center or doctor/physician. DO NOT induce vomiting. If conscious, drink 8-10 oz. of water promptly. Never give anything by mouth to an unconscious person. Obtain medical attention. Do not induce vomiting unless directed by medical personnel.

Most important symptoms and effects

Symptoms Corrosive - causes irreversible eye damage. May cause an allergic skin reaction.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

Foam. Dry chemical. Water spray (fog). Carbon dioxide (CO₂). Foam or dry chemical systems are preferred to prevent environmental damage from excessive water runoff.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Can burn under fire conditions.

Hazardous Combustion Products Fire will produce irritating, corrosive and/or toxic gases. Hydrogen chloride. Carbon and hydrogen oxides. Nitrogen oxides (NO_x). Oxides of sulfur.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Evacuate area of unprotected personnel. Remain upwind of fire to avoid hazardous vapors and decomposition products. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Personal Precautions Wear protective clothing as described in Section 8 of this safety data sheet. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

Environmental Precautions Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. See Section 13: DISPOSAL CONSIDERATIONS.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Clean-Up Vacuum or sweep up material & place into a suitable disposal container. Avoid generating dusty conditions. Provide ventilation. Flush spill area with water. Pick up wash liquid with inert absorbent and place in a chemical waste container for disposal.

7. HANDLING AND STORAGE**Precautions for safe handling**

Advice on Safe Handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Use personal protection recommended in Section 8. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Do not contaminate water, food or feed by storage, disposal or by cleaning equipment. Wash thoroughly after handling before eating, drinking, smoking, or using toilet facilities.

Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep container tightly closed and store in a cool, dry and well-ventilated place. Store locked up. Protect from excessive heat. Protect from moisture. Store away from incompatible materials.
Packaging Materials	Do not reuse container.
Incompatible Materials	Alkaline materials. Acidic materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Captan 133-06-2	TWA: 5 mg/m ³ inhalable fraction	(vacated) TWA: 5 mg/m ³	TWA: 5 mg/m ³

Appropriate engineering controls

Engineering Controls	Please update the engineering controls statement with "Please refer to the product label. Use only with adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
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Individual protection measures, such as personal protective equipment

Eye/Face Protection	Use chemical safety goggles and/or full-face shield where dusting is possible.
Skin and Body Protection	Wear long-sleeved shirt, long pants, and shoes plus socks. 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.
Respiratory Protection	Ensure adequate ventilation, especially in confined areas. Wear an appropriate NIOSH/MSHA approved respirator if ventilation is inadequate.
General Hygiene Considerations	Handle in accordance with good industrial hygiene and safety practice. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Wash hands before eating, drinking, smoking and using the toilet.

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Physical State	Liquid	Odor	Mild
Appearance	Tan liquid	Odor Threshold	Not determined
Color	Off-white		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	4.83	
Melting Point/Freezing Point	Not determined	
Boiling Point/Boiling Range	Not determined	
Flash Point	Not flammable	
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	Not determined	
Upper Flammability Limits	Not determined	
Lower Flammability Limit	Not determined	

Vapor Pressure	Not determined	
Vapor Density	Not determined	
Specific Gravity	Not determined	
Water Solubility	Not determined	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Auto-ignition Temperature	Not determined	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	1340 centipoise	@ 25 deg C
Explosive Properties	Not determined	
Oxidizing Properties	None known	
Density	1.24 g/cm ³	

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

May decompose if heated.

Hazardous Polymerization Hazardous polymerization does not occur.

Conditions to Avoid

Excessive heat. Avoid moisture. Contact with incompatible materials.

Incompatible Materials

Alkaline materials. Acidic materials.

Hazardous Decomposition Products

Fire will produce irritating, corrosive and/or toxic gases. Hydrogen chloride. Carbon and hydrogen oxides. Nitrogen oxides (NO_x). Oxides of sulfur.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact	Causes serious eye damage.
Skin Contact	May cause an allergic skin reaction.
Inhalation	Harmful if inhaled.
Ingestion	Do not taste or swallow.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Captan 133-06-2	= 9 g/kg (Rat) = 3573 mg/kg (Rat)	> 5000 mg/kg (Rat) > 5 g/kg (Rat)	= 0.72 mg/L (Rat) 4 h

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization May cause an allergic skin reaction.

Carcinogenicity Not a human carcinogen when used according to product label.

Chemical Name	ACGIH	IARC	NTP	OSHA
Captan 133-06-2	A3	Group 3		

LEGEND

ACGIH (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)

Group 3 IARC components are "not classifiable as human carcinogens"

Product Information (Numerical measures of toxicity)

Acute Oral LD50 (Rat): >5,000 mg/kg

Acute Dermal LD50 (Rabbit): >5,000 mg/kg

Acute Inhalation LC50 (Rat): >2.03 mg/L (4-hr)

Eye Irritation: Mildly irritating.

Dermal Irritation: Non-irritating.

Dermal Sensitization: Slight skin sensitizer.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic life with long lasting effects.

Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Captan 133-06-2		0.168 - 0.238: 96 h Pimephales promelas mg/L LC50 static 0.059 - 0.070: 96 h Pimephales promelas mg/L LC50 flow-through 0.0666 - 0.0804: 96 h Oncorhynchus mykiss mg/L LC50 static 0.3: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.075: 96 h Oncorhynchus mykiss mg/L LC50 126: 96 h Oncorhynchus mykiss mg/L LC50 semi-static 0.119 - 0.167: 96 h Lepomis macrochirus mg/L LC50 static 0.047 - 0.111: 96 h Lepomis macrochirus mg/L LC50 flow-through 0.16: 96 h Lepomis macrochirus mg/L LC50		7 - 9.9: 48 h Daphnia magna mg/L EC50 Static

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Not determined

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS**Waste Treatment Methods****Disposal of Wastes**

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

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.

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.

Contaminated Packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION**DOT**

Pack size less than 2.5 Gallons: Not Regulated

Pack size over 2.5 Gallons:

UN/ID No UN3082
Proper Shipping Name Environmentally hazardous substance, solid, n.o.s. (captan)
Hazard Class 9
Packing Group III
Reportable Quantity (RQ) 10 Lb.

IATA

UN/ID No UN3082
Proper Shipping Name Environmentally hazardous substance, solid, n.o.s. (captan)
Hazard Class 9
Packing Group III

IMDG

UN/ID No UN3082
Proper Shipping Name Environmentally hazardous substance, solid, n.o.s. (captan)
Hazard Class 9
Packing Group III
Marine Pollutant Yes

15. REGULATORY INFORMATION**International Inventories**

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Captan	Present	X		Present		Present	X	Present	X	X

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

CERCLA

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Captan 133-06-2	10 lb		RQ 10 lb final RQ RQ 4.54 kg final RQ

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Captan - 133-06-2	133-06-2	38.75	1.0

CWA (Clean Water Act)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Captan	10 lb			X

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals.

Chemical Name	California Proposition 65
Captan - 133-06-2	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Captan 133-06-2	X	X	X

EPA Pesticide Registration Number 66222-257

EPA Statement

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

EPA Pesticide Label

CAUTION: Causes moderate eye irritation. Harmful if swallowed. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Prolonged or frequently repeated skin contact may cause allergic skin reactions in some individuals.

Difference between SDS and EPA pesticide label

	EPA	OSHA
Signal Word	Caution	Danger
Acute toxicity - Oral	Harmful if swallowed	NA
Acute toxicity - Inhalation (Dusts/Mists)	NA	Harmful if inhaled
Serious eye damage/eye irritation	Causes moderate eye irritation	Causes serious eye damage
Skin sensitization	NA	May cause an allergic skin reaction

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazards	Flammability	Instability	Special Hazards
	3	1	1	None
<u>HMIS</u>	Health Hazards	Flammability	Physical Hazards	Personal Protection
	3	1	1	See section 8

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Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet