



Safety Data Sheet

Issue Date: 08-Feb-2010

Revision Date: 23-Nov-2015

Version 2

1. IDENTIFICATION

Product Identifier

Product Name

Quali-Pro TM/C WDG Turf & Ornamental Fungicide

Other means of identification

SDS #

ADAMA-163

Registration Number(s)

EPA Reg. No. 48234-7-66222

UN/ID No

UN3077

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 Light bluish-gray solid granules

Physical State Solid

Odor Slightly pungent

Classification

Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Germ cell mutagenicity	Category 2
Carcinogenicity	Category 2
Specific target organ toxicity (single exposure)	Category 3

Signal Word

Danger

Hazard Statements

Causes serious eye damage
 May cause an allergic skin reaction
 Suspected of causing genetic defects
 Suspected of causing cancer
 May cause respiratory irritation

**Precautionary Statements - Prevention**

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Use personal protective equipment as required
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Contaminated work clothing should not be allowed out of the workplace
 Wear protective gloves
 Use only outdoors or in a well-ventilated area

Precautionary Statements - Response

If exposed or concerned: Get medical advice/attention
 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
 Wash contaminated clothing before reuse
 If skin irritation or rash occurs: Get medical advice/attention
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Precautionary Statements - Storage

Store locked up
 Store in a well-ventilated place. Keep container tightly closed

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-%
Chlorothalonil	1897-45-6	45-55
Thiophanate-methyl	23564-05-8	15-20

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

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	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.
Skin Contact	IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.
Inhalation	Give oxygen if breathing is difficult. If breathing has stopped, call 911, give artificial respiration. Call a physician or poison control center immediately.
Ingestion	Immediately call a poison center or doctor/physician. Do not induce vomiting, unless directed by medical personnel. Never give anything by mouth to an unconscious person.

Most important symptoms and effects

Symptoms	May be harmful if inhaled. Causes serious eye damage. May cause an allergic skin reaction. May cause respiratory irritation.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically. Probable mucosal damage may contraindicate the use of gastric lavage.
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5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

Water spray (fog). Foam. Carbon dioxide (CO₂). Dry chemical. Sand/earth.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Not determined.

Hazardous Combustion Products Under fire conditions, toxic and irritating fumes may be emitted. Hydrogen chloride. Carbon oxides. Sulfur oxides. Nitrogen oxides (NO_x).

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. 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. Avoid creating dust.
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	Do not flush to sewer. Collect and place in suitable, properly labeled container for recovery or disposal. Avoid creating dust.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling

Handle in accordance with good industrial hygiene and safety practice. Use personal protection recommended in Section 8. Avoid contact with skin, eyes or clothing. Avoid generation of dust. Wash face, hands, and any exposed skin thoroughly after handling. Wash contaminated clothing before reuse. Use in accordance with product label instructions. Use only outdoors or in a well-ventilated area. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink, smoke, or apply cosmetics while handling this product. Follow all product label instructions. Use only as directed. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Contaminated work clothing should not be allowed out of the workplace.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep container tightly closed and store in a cool, dry and well-ventilated place. Keep out of the reach of children. Keep/store only in original container. Store at ambient conditions. Do not contaminate water, food, or feed by storage or disposal. Keep away from incompatible materials, open flames, and high temperatures. Store locked up.

Incompatible Materials

None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

The following information is given as general guidance

Appropriate engineering controls

Engineering Controls

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.

Individual protection measures, such as personal protective equipment

Eye/Face Protection

Wear safety glasses with side shields (or goggles). Goggles are recommended.

Skin and Body Protection

Wear appropriate clothing to prevent repeated or prolonged skin contact. Wear long-sleeved shirt, long pants, and shoes plus socks. Use chemical resistant gloves, such as P.V.C., butyl-rubber, nitrile-rubber, or neoprene.

Respiratory Protection

NIOSH-approved respirator or mask in the absence of adequate ventilation.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice. Wash face, hands and any exposed skin thoroughly after handling. Take off all contaminated clothing and wash it before reuse. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. 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. Contaminated work clothing must not be allowed out of the workplace.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State
Appearance
Color

Solid
Light bluish-gray solid granules
Light bluish-gray

Odor
Odor Threshold

Slightly pungent
Not determined

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	N/A	
Melting Point/Freezing Point	Not determined	
Boiling Point/Boiling Range	Not determined	
Flash Point	Not applicable	
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	Dispersible	
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	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	
Bulk Density	46 lb/ft.3	

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization

Hazardous polymerization does not occur.

Conditions to Avoid

See Sec. 7 Handling & Storage.

Incompatible Materials

None known based on information supplied.

Hazardous Decomposition Products

May emit toxic fumes under fire conditions. Hydrogen chloride. Carbon oxides. Nitrogen oxides (NOx). Sulfur oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact

Causes serious eye damage.

Skin Contact

Avoid contact with skin.

Inhalation

Do not inhale.

Ingestion

Do not ingest.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Chlorothalonil 1897-45-6	> 10000 mg/kg (Rat) = 10 g/kg (Rat)	> 2500 mg/kg (Rat) > 10 g/kg (Rabbit)	= 0.1 mg/L (Rat) 4 h = 0.31 mg/L (Rat) 1 h
Thiophanate-methyl 23564-05-8	= 6640 mg/kg (Rat)	> 10 g/kg (Rat) > 10 g/kg (Rabbit)	= 1700 mg/m ³ (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.

Germ cell mutagenicity Suspected of causing genetic defects.

Carcinogenicity Suspected of causing cancer.

Chemical Name	ACGIH	IARC	NTP	OSHA
Chlorothalonil 1897-45-6		Group 2B		X

Legend

IARC (International Agency for Research on Cancer)

Group 2B - Possibly Carcinogenic to Humans

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

STOT - single exposure May cause respiratory irritation.

Product Information (Numerical measures of toxicity)

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

Acute Dermal LD50 (Rabbit): >2,000 mg/kg

Acute Inhalation LC50 (Rat): Not available.

Eye Irritation: Not available.

Dermal Irritation: Not available.

Dermal Sensitization: Not available.

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Very toxic to aquatic life with long lasting effects. This pesticide is toxic to aquatic invertebrates and wildlife. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high-watermark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Chlorothalonil 1897-45-6	0.57: 72 h <i>Desmodesmus subspicatus</i> mg/L EC50 0.0068: 72 h <i>Pseudokirchneriella subcapitata</i> mg/L EC50 static	0.012: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 semi-static 0.0076: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 flow-through 0.0221 - 0.032: 96 h <i>Lepomis macrochirus</i> mg/L LC50 flow-through 0.045 - 0.057: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static		0.0342 - 0.143: 48 h <i>Daphnia magna</i> mg/L EC50 Static

Thiophanate-methyl 23564-05-8		7.8: 48 h Oncorhynchus mykiss mg/L LC50		
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Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Chemical Name	Partition Coefficient
Chlorothalonil 1897-45-6	2.9

Other Adverse Effects

Not determined

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

Pesticide wastes are toxic. 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 of the nearest EPA Regional Office for guidance.

Contaminated Packaging

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

US EPA Waste Number

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Thiophanate-methyl 23564-05-8	U409			U409

14. TRANSPORT INFORMATION**DOT**

Package size less than 50 Lbs.: Not regulated

UN/ID No

Package size over 50 Lbs.:

Proper Shipping Name

UN3077

Hazard Class

Environmentally hazardous substance, solid, n.o.s. (Thiophanate-methyl) RQ

Packing Group

9

Reportable Quantity (RQ)

III

RQ = 10 Lbs.

Marine Pollutant

IATA

UN 3077, Environmentally hazardous substance, solid, n.o.s. (Thiophanate-methyl)

IMDG

UN3077, Environmentally hazardous substance, solid, n.o.s. (Thiophanate-methyl), 9, PG III, Marine pollutant

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Chlorothalonil	Present	X		Present		Present	X	Present	X	X
Thiophanate-methyl		X		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)
Thiophanate-methyl 23564-05-8	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	Yes
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 %
Chlorothalonil - 1897-45-6	1897-45-6	45-55	0.1
Thiophanate-methyl - 23564-05-8	23564-05-8	15-20	1.0

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals.

Chemical Name	California Proposition 65
Chlorothalonil - 1897-45-6	Carcinogen
Thiophanate-methyl - 23564-05-8	Female Reproductive Male Reproductive

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Chlorothalonil 1897-45-6	X	X	X
Thiophanate-methyl 23564-05-8	X		

EPA Pesticide Registration Number 48234-7-66222

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

Signal Word: Danger

Corrosive. Causes irreversible eye damage. Do not get in eyes or on skin or clothing. Wear protective eyewear such as goggles, face shield, or safety glasses. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse. Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Difference between SDS and EPA pesticide label

	EPA	OSHA
Signal Word	Danger	Danger
Acute toxicity - Dermal	Harmful if absorbed through skin	N/A
Serious eye damage/eye irritation	Causes irreversible eye damage	Causes serious eye damage
Skin sensitization	Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals	May cause an allergic skin reaction
Germ cell mutagenicity	N/A	Suspected of causing genetic defects
Carcinogenicity	N/A	Suspected of causing cancer
STOT - single exposure	N/A	May cause respiratory irritation

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazards	Flammability	Instability	Special Hazards
	3	1	0	None
<u>HMIS</u>	Health Hazards	Flammability	Physical Hazards	Personal Protection
	3	1	0	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 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