



Safety Data Sheet

Issue Date: 16-Aug-2011

Revision Date: 23-Nov-2015

Version 2

1. IDENTIFICATION

Product Identifier

Product Name Quali-Pro T/I 2.5 G

Other means of identification

SDS # ADAMA-162

Registration Number(s) Reg. No. 66222-224
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 Yellow-gray granules

Physical State Solid

Odor Mild organic

Classification

Acute toxicity – Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 2
Eye damage/eye irritation	Category 2
Germ cell mutagenicity	Category 1B
Reproductive toxicity	Category 1B

Signal Word

Danger

Hazard Statements

Harmful if inhaled
 Causes skin irritation
 Causes serious eye irritation
 May cause genetic defects
 May damage fertility or the unborn child

**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
 Use only outdoors or in a well-ventilated area
 Wash hands, face, and any exposed skin thoroughly after handling

Precautionary Statements - Response

If exposed or concerned: Get medical advice/attention
 IF ON SKIN: Wash with plenty of soap and water
 If skin irritation occurs: Get medical advice/attention
 Take off contaminated clothing and wash before reuse
 IF INHALED: Remove person to fresh air and keep comfortable for breathing
 Call a poison center/doctor if you feel unwell
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 If eye irritation persists: Get medical advice/attention

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other Hazards

Toxic to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Trifluralin	1582-09-8	2

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

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Call a poison control center or doctor for treatment advice.

Skin Contact

IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.

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	Do not induce vomiting, unless directed by medical personnel. Get immediate medical attention. If conscious, give 1 glass of water to dilute. Never give anything by mouth to an unconscious person.

Most important symptoms and effects

Symptoms	May cause moderate eye irritation. May cause an allergic skin reaction.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

Carbon dioxide (CO₂). Dry chemical. Water spray (fog).

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Not determined.

Hazardous Combustion Products Nitrogen oxides (NO_x). Other toxic gases.

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. 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. Dike far ahead of spill; use dry sand to contain the flow of material.
Methods for Clean-Up	Sweep up with a minimum of dusting. Pick up and transfer to properly labeled containers. 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. Avoid contact with skin, eyes or clothing. Use personal protection recommended in Section 8. Wash face, hands, and any exposed skin thoroughly after handling. Do not contaminate water, food or feed by storage, disposal or by cleaning equipment. Do not eat, drink, smoke, or apply cosmetics while handling this product. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust. 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. Store locked up. Keep out of the reach of children. Keep/store only in original container. Store at ambient conditions. Avoid heat or open flames.

Incompatible Materials

None known.

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

Use splash goggles or face shield when contact may occur.

Skin and Body Protection

Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Viton or other impervious gloves are required. Long sleeve shirt, trousers, and safety shoes.

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. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State
Appearance
Color

Solid
Yellow-gray granules
Not determined

Odor
Odor Threshold

Mild organic
Not determined

Property

pH
Melting Point/Freezing Point
Boiling Point/Boiling Range
Flash Point
Evaporation Rate
Flammability (Solid, Gas)

Values

Not determined
Not determined
Not determined
Not applicable
Not determined
Not determined

Remarks • Method

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	Not determined
Explosive Properties	Not determined
Oxidizing Properties	Not determined
Density	0.90 g/cc (56 lb/ft3)

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 Not known to occur.

Conditions to Avoid

See Sec. 7 Handling & Storage.

Incompatible Materials

None known.

Hazardous Decomposition Products

Nitrogen oxides (NO_x). Other toxic gases.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact Avoid contact with eyes.

Skin Contact Avoid contact with skin.

Inhalation Avoid inhalation of dust.

Ingestion Do not ingest.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Trifluralin 1582-09-8	= 1930 mg/kg (Rat) = 2517 mg/kg (Rat)	> 5000 mg/kg (Rat) > 5 g/kg (Rat)	= 2800 mg/m ³ (Rat) 1 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 May cause genetic defects.

Carcinogenicity Not classifiable as a human carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Trifluralin 1582-09-8		Group 3		

Legend

IARC (International Agency for Research on Cancer)

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

Reproductive toxicity May damage fertility or the unborn child.

Product Information (Numerical measures of toxicity)

Acute Oral LD50 (Rat): >2,500 mg/kg

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

Acute Inhalation LC50 (Rat): >4.6 mg/L (4-hr)

Eye Irritation: Moderately irritating.

Dermal Irritation: Irritating.

Dermal Sensitization: Not a skin sensitizer.

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Toxic to aquatic life with long lasting effects. This pesticide is extremely toxic to freshwater marine, and estuarine fish and aquatic invertebrates including shrimp and oyster. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply in a manner which will directly expose canals, lakes, streams, ponds, marshes or estuaries to aerial drift. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Trifluralin 1582-09-8		0.083 - 0.134: 96 h Pimephales promelas mg/L LC50 static 0.099: 96 h Pimephales promelas mg/L LC50 0.0072 - 0.014: 96 h Oncorhynchus mykiss mg/L LC50 static 0.0168 - 0.0199: 96 h Lepomis macrochirus mg/L LC50 static 0.036 - 0.051: 96 h Cyprinus carpio mg/L LC50 static		0.32 - 1: 48 h Daphnia magna mg/L EC50 Static 0.16 - 0.36: 48 h Daphnia pulex 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	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.

14. TRANSPORT INFORMATION

<u>DOT</u>	Package size less than 500 Lbs. : Not regulated UN 3077, Environmentally hazardous substance, solid, n.o.s. (Trifluralin), 9, PG III, RQ, Marine Pollutant
Reportable quantity:	10 Lbs. of Trifluralin
<u>IATA</u>	UN 3077, Environmentally hazardous substance, solid, n.o.s. (Trifluralin), 9, PG III,
<u>IMDG</u>	UN 3077, Environmentally hazardous substance, solid, n.o.s. (Trifluralin), 9, PG III, Marine pollutant.

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Trifluralin		X		Present		Present	X	Present		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)
Trifluralin 1582-09-8	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 %
Trifluralin - 1582-09-8	1582-09-8	1.90-2.10	1.0

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Trifluralin 1582-09-8	X	X	X

EPA Pesticide Registration Number Reg. No. 66222-224

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: Caution

Causes moderate eye irritation. Harmful if swallowed or inhaled. Prolonged for frequently repeated skin contact may cause an allergic reaction in some individuals. Avoid breathing dust or spray mist and contact with eyes or clothing. Wash thoroughly with soap and water after handling.

Difference between SDS and EPA pesticide label

	EPA	OSHA
Signal Word	Caution	Danger
Acute toxicity - Oral	Harmful if swallowed	N/A
Acute toxicity - Inhalation (Dusts/Mists)	Harmful if inhaled	Harmful if inhaled
Skin corrosion/irritation	N/A	Causes skin irritation
Serious eye damage/eye irritation	Causes moderate eye irritation	Causes serious eye irritation
Skin sensitization	Prolonged for frequently repeated skin contact may cause an allergic reaction in some individuals	N/A
Germ cell mutagenicity	N/A	May cause genetic defects
Reproductive toxicity	N/A	May damage fertility or the unborn child

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazards	Flammability	Instability	Special Hazards
	2	1	0	None
<u>HMIS</u>	Health Hazards	Flammability	Physical Hazards	Personal Protection
	2	1	0	See section 8

Issue Date: 16-Aug-2011
Revision Date: 23-Nov-2015
Revision Note: Updated format from 07-Apr-2015

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