



Safety Data Sheet

Issue Date: 13-Feb-2012

Revision Date: 26-Oct-2015

Version 2

1. IDENTIFICATION

Product Identifier

Product Name

Tailgunner

Other means of identification

SDS #

ADAMA-025C

Registration Number(s)

EPA Reg. No. 66222-236

UN/ID No

UN3352

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 Beige liquid

Physical State Liquid

Odor Faint organic

Classification

Acute toxicity - Oral	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Carcinogenicity	Category 1B

Signal Word

Danger

Hazard Statements

Toxic if swallowed
Harmful if inhaled
May cause cancer

**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
 Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Use only outdoors or in a well-ventilated area

Precautionary Statements - Response

If exposed or concerned: Get medical advice/attention
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
 Rinse mouth

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-%
Bifenthrin	82657-04-3	21.9-23.3

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**

IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician. 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 thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin Contact

Remove contaminated clothing and shoes. Wash off immediately with plenty of water for at least 15 minutes. Consult a physician if necessary.

Inhalation

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion

Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. Immediately call a poison center or doctor/physician.

Most important symptoms and effects

Symptoms Irritating to eyes, respiratory system & skin. Toxic if swallowed. Harmful if inhaled.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Dry chemical. Carbon dioxide (CO₂). Foam.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Not determined.

Hazardous Combustion Products Toxic gases may be formed by fire.

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 Cover liquid spill with sand, earth or other non-combustible absorbent material. Sweep up and shovel into suitable containers for disposal. Dispose of in accordance with federal, state and local regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Handle in accordance with good industrial hygiene and safety practice. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wash face, hands, and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin, eyes or clothing. Use only outdoors or in a well-ventilated area.

Conditions for safe storage, including any incompatibilities

Storage Conditions	Do not contaminate water, food, or feed by storage or disposal. Keep/store only in original container. Store locked up. Store at ambient conditions. Protect from excessive heat. Keep container tightly closed and store in a cool, dry and well-ventilated place. Do not allow product to freeze. Do not store below 40°F (4°C). If crystals are observed, warm material to above 60°F (16°C) by placing container in warm location. Shake or roll periodically to re-dissolve solids. Keep out of reach of children and animals. Store in original container only. Store in cool, dry place and avoid excessive heat. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.
Packaging Materials	Do not reuse container.
Incompatible Materials	4% Potassium Permanganate.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

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).

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.

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

Physical State	Liquid	Odor	Faint organic
Appearance	Beige liquid	Odor Threshold	Not determined
Color	Beige		
Property	Values	Remarks • Method	
pH	6.0-8.0	(1% solution)	
Melting Point/Freezing Point	Not determined		
Boiling Point/Boiling Range	Not determined		
Flash Point	Not determined		
Evaporation Rate	Not determined		
Flammability (Solid, Gas)	Liquid-not applicable		

Upper Flammability Limits	Not applicable
Lower Flammability Limit	Not applicable
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
Bulk Density	8.85-9.05 lb/gal

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

Keep out of reach of children. Excessive heat and fire.

Incompatible Materials

4% Potassium Permanganate.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact Avoid contact with eyes.

Skin Contact Avoid contact with skin.

Inhalation Harmful if inhaled.

Ingestion Toxic if swallowed.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Bifenthrin 82657-04-3	= 54.5 mg/kg (Rat)	> 2 g/kg (Rabbit)	-

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

Carcinogenicity May cause cancer.

Chemical Name	ACGIH	IARC	NTP	OSHA
Bifenthrin 82657-04-3		Group 2A		X

Legend

IARC (International Agency for Research on Cancer)

Group 2A - Probably Carcinogenic to Humans

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

X - Present

Product Information (Numerical measures of toxicity)

Acute Oral LD50 (Rat): >50 mg/kg

Acute Dermal LD50 (Rabbit): >2,020 mg/kg

Acute Inhalation LC50 (Rat): >2.18 mg/L (4-hr)

Eye Irritation: Mildly irritating.

Dermal Irritation: Slightly irritating.

Dermal Sensitization: Not a skin sensitizer.

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Very toxic to aquatic life with long lasting effects. This pesticide is extremely toxic to fish and aquatic invertebrates. Use with care when applying in areas adjacent to any body of water. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not make applications when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment wash waters. This product is highly toxic to bees exposed to direct treatment or residues blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.

Component Information

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Bifenthrin 82657-04-3		0.0001 - 0.00019: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 0.0003 - 0.00038: 96 h Lepomis macrochirus mg/L LC50 flow-through		0.00135 - 0.00195: 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.

California Hazardous Waste Status

Chemical Name	California Hazardous Waste Status
Bifenthrin 82657-04-3	Toxic

14. TRANSPORT INFORMATION

DOT

UN/ID No UN3352
Proper Shipping Name Pyrethroid pesticides, liquid, toxic (bifenthrin)
Hazard Class 6.1
Packing Group III
Marine Pollutant Yes
Note Packages with inner packaging not over 5 liters (1.3 gallons) each may be reclassified as Limited Quantity

IATA

UN/ID No UN3352
Proper Shipping Name Pyrethroid pesticides, liquid, toxic (bifenthrin)
Hazard Class 6.1
Packing Group III
Marine Pollutant Yes

IMDG

UN/ID No UN3352
Proper Shipping Name Pyrethroid pesticides, liquid, toxic (bifenthrin)
Hazard Class 6.1
Packing Group III
Marine Pollutant Yes

15. REGULATORY INFORMATION

International Inventories

TSCA

All ingredients are listed or exempt from listing on Chemical Substance Inventory

Legend:

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

US Federal Regulations**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

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Bifenthrin - 82657-04-3	82657-04-3	21.9-23.3	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
Bifenthrin 82657-04-3	X		

EPA Pesticide Registration Number EPA Reg. No. 66222-236

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: Warning

May be fatal if swallowed. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Wear long-sleeved shirt and long pants, socks, shoes, and gloves. Remove and wash contaminated clothing before reuse.

Difference between SDS and EPA pesticide label

	EPA	OSHA
Signal Word	Warning	Danger
Acute toxicity - Oral	May be fatal if swallowed	Toxic if swallowed
Acute toxicity - Dermal	Harmful if absorbed through skin	N/A
Acute toxicity - Inhalation (Dusts/Mists)	N/A	Harmful if inhaled
Carcinogenicity	N/A	May cause cancer

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

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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