



Safety Data Sheet

Issue Date: 11-Mar-2013

Revision Date: 06-Nov-2015

Version 2

1. IDENTIFICATION

Product Identifier

Product Name Skyraider

Other means of identification

SDS # ADAMA-013

Registration Number(s) Reg. No. 66222-247

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 Off-white liquid

Physical State Liquid

Odor Mild

Classification

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

Signal Word

Danger

Hazard Statements

Toxic if swallowed
Toxic 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
 Call a poison center/doctor
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
 Rinse mouth

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed. 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	22.1
Imidacloprid	138261-41-3	11

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

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Seek medical advice.

Skin Contact

Take off contaminated clothing. Wash off immediately with plenty of water for at least 15 minutes. Call a poison control center or doctor for treatment advice.

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.
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Most important symptoms and effects

Symptoms	Causes eye irritation. Large doses may cause incoordination, tremor, salivation, vomiting, diarrhea and irritability to sound and touch. Overexposure may result in tremors, convulsions, decreased activity and piloerection. Contact with skin may occasionally produce skin sensations such as rashes, numbing, burning or tingling. These skin sensations are reversible and usually subside within 12 hours. Persons with pre-existing eye or skin conditions may be more sensitive to glycerin.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	This product is a pyrethroid. If large amounts have been ingested, the stomach and intestines should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and should be avoided.
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5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**Foam. Carbon dioxide (CO₂). Dry chemical.**Unsuitable Extinguishing Media** Not determined.**Specific Hazards Arising from the Chemical**

Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.

Hazardous Combustion Products Toxic gases may be formed by fire. Carbon monoxide. Carbon dioxide (CO₂). Hydrogen chloride. Hydrogen fluoride.**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.
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Environmental Precautions	Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. See Section 13: DISPOSAL CONSIDERATIONS.
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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. Transfer spill products into a properly labelled container for disposal.
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Methods for Clean-Up	Keep in suitable, closed containers for disposal.
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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. Wash face, hands, and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid breathing vapors or mists. Use only outdoors or in a well-ventilated area. Open and handle container with care. Do not contaminate water, food or feed by storage, disposal or by cleaning equipment.

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. 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.

Incompatible Materials

Strong acids, strong bases, strong oxidizing agents.

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

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State Appearance Color	Liquid Off-white liquid Off-white	Odor Odor Threshold	Mild Not determined
Property pH Melting Point/Freezing Point Boiling Point/Boiling Range Flash Point	Values 7.0-8.5 Not determined Not determined Not flammable	Remarks • Method	

Evaporation Rate	Not determined
Flammability (Solid, Gas)	Liquid-not applicable
Upper Flammability Limits	Not determined
Lower Flammability Limit	Not determined
Vapor Pressure	Not determined
Vapor Density	Not determined
Specific Gravity	1.107 g/cm ³ (9.24 lb/gal)
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	9.18-9.38 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.

Incompatible Materials

Strong acids, strong bases, strong oxidizing agents.

Hazardous Decomposition Products

Carbon monoxide. Carbon dioxide (CO₂). Hydrogen chloride. Hydrogen fluoride.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact Avoid contact with eyes.

Skin Contact Avoid contact with skin.

Inhalation Toxic 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
Imidacloprid 138261-41-3		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): >175 mg/kg

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

Acute Inhalation LC50 (Rat): >0.57 mg/L (4-hr)

Eye Irritation: Minimally 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. The use of bifenthrin is prohibited in areas that may result in exposure of endangered species to bifenthrin. Prior to use in a particular county, contact the local extension service for procedures and precautions to use to protect endangered species. The use of this product in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

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 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.

California Hazardous Waste Status

Chemical Name	California Hazardous Waste Status
Bifenthrin 82657-04-3	Toxic
Imidacloprid 138261-41-3	Toxic

14. TRANSPORT INFORMATION

DOT

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

IATA

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

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 Listed

Legend:

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

US Federal Regulations

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	22.1	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 Reg. No. 66222-247**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. Harmful if inhaled. Avoid breathing spray mist. 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. 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 the skin	N/A
Acute toxicity - Inhalation (Dusts/Mists)	Harmful if inhaled	Toxic if inhaled
Carcinogenicity	N/A	May cause cancer

16. OTHER INFORMATION

NFPA**Health Hazards****Flammability****Instability****Special Hazards**

Not determined

Not determined

Not determined

Not determined

HMIS**Health Hazards****Flammability****Physical Hazards****Personal Protection**

Not determined

Not determined

Not determined

Not determined

Issue Date:	11-Mar-2013
Revision Date:	06-Nov-2015
Revision Note:	Updated format from 30-Apr-2014

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