

SAFETY DATA SHEET

SKYRAIDER

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1. IDENTIFICATION

Product name: **SKYRAIDER**
Chemical name of active ingredient(s): **Bifenthrin:** 2 methyl[1,1'-biphenyl]-3-yl)methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethyl-cyclopropanecarboxylate
Imidacloprid: 1-[(6-Chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine
Manufacturer: Makhteshim Agan of North America, Inc.
3120 Highwoods Boulevard, Suite 100
Raleigh, NC 27604
Phone: 1-919-256-9300
Phone: 1-800-535-5053
For fire, spill, and/or leak emergencies, contact Infotrac: Phone: 1-877-250-9291
For medical emergencies and health and safety inquiries, contact Prosar:

2. HAZARDS IDENTIFICATIONS

PHYSICAL PROPERTIES:

APPARANCE: Off-white liquid

ODOR: Mild

EMERGENCY OVERVIEW: 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.

POTENTIAL HEALTH EFFECTS:

Ingestion: May be fatal if swallowed.

Eye: Causes eye irritation.

Skin: Harmful if absorbed through the skin. Causes moderate skin irritation.

Inhalation: Harmful if inhaled; avoid breathing vapor or spray mist.

SYMPTOMS OF ACUTE EXPOSURE: Large doses may cause incoordination, tremor, salivation, vomiting, diarrhea and irritability to sound and touch.

SYMPTOMS OF OVEREXPOSURE: Overexposure may result from either swallowing, inhaling or coming into contact with the eyes or skin. Symptoms of overexposure include tremors, convulsions, decreased activity and piloerection. Contact with bifenthrin may occasionally produce skin sensations such as rashes, numbing, burning or tingling. These skin sensations are reversible and usually subside within 12 hours.

MEDICAL CONDITIONS AGGRAVATED: Persons with pre-existing eye or skin conditions may be more sensitive to glycerin.

3. COMPOSITION/INFORMATION ON INGREDIENTS

COMMON NAME	CAS NO.	%	OSHA/PEL	ACIGH/TLV	OTHER	NTP/IARC/OSHA (Carcinogenicity)
Bifenthrin	82657-04-3	21.65	NE	NE	NA	NA
Imidacloprid	138261-41-3	10.80	NE	NE	NE	NA

NA=Not applicable; NE: Not established

4. FIRST AID MEASURES

FIRST AID	
IF SWALLOWED:	<ul style="list-style-type: none">• Immediately call a poison control center or doctor.• Do not induce vomiting unless told to do so by a poison control center or doctor.• Have person sip a glass of water if able to swallow.• Do not give anything by mouth to an unconscious person

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IF INHALED:	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible.• Call a poison control center or doctor for further treatment advice
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact PROSAR at 1-877-250-9291 for emergency medical treatment information.	
NOTE 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.	

5. FIRE FIGHTING MEASURES

FLASH POINT: Not applicable.

FLAMMABLE LIMITS: LFL/UFL: Not applicable.

EXTINGUISHING MEDIA: Foam, CO₂, dry chemical

FIRE & EXPLOSION HAZARDS: Will not burn but may decompose upon heating to produce toxic fumes.

FIRE-FIGHTING PROCEDURES: Isolate fire area. Do not breathe smoke, gases or vapors generated.

FIRE-FIGHTING EQUIPMENT: Wear self-contained breathing apparatus and full-protective clothing.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, hydrogen chloride and hydrogen fluoride.

6. ACCIDENTAL RELEASE MEASURES

ACTION TO TAKE FOR SPILLS/LEAKS: Clean up spills immediately, using precautions described in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

Keep material out of lakes, streams, ponds and sewer drains. To confine spill: If liquid, dike surrounding area or absorb with sand, cat litter or commercial clay; if dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

Do not allow material to run off into soil, drainage systems, or bodies of water. Notify and consult with proper regulatory authorities.

7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING: Carefully open containers. After partial use, replace lids and close tightly. Do not put concentrate or dilute material into food or drink containers. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.

PRECAUTIONS TO BE TAKEN IN STORAGE: Store locked up and in a 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 redissolve 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.

STORAGE TEMPERATURE (MIN/MAX): Do not store below 40°F (4°C)

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION, PACKAGING AND USE OF THIS PRODUCT.

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

EYE PROTECTION: Protective eyewear.

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SKIN PROTECTION: Long-sleeved shirt and long pants. Shoes plus socks.

HAND PROTECTION: Chemical-resistant gloves, such as barrier laminate, nitrile rubber, neoprene rubber, or Viton.

RESPIRATOR REQUIREMENTS: Not required – Use normal safety precautions.

ADDITIONAL PROTECTIVE MEASURES: 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.

USER SAFETY RECOMMENDATIONS:

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

EXPOSURE GUIDELINES: Refer to Section 2.

ENGINEERING CONTROLS: Use adequate ventilation to minimize airborne concentrations of this material.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Off-white liquid

ODOR: Mild

pH: 7.84

DENSITY: 1.107 g/cm³ (9.24 pounds/gallon)

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal use and storage conditions.

CONDITIONS TO AVOID: Strong bases, acids and oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, hydrogen chloride and hydrogen fluoride.

POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY/IRRITATION STUDIES:

Acute Oral LD50 (Rat): > 175 mg/kg

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

Acute Inhalation LC50 (Rat): > 0.57 mg/L (4 hrs.)

Eye Irritation (Rabbit): Minimally irritating (irritation cleared by 48 hours)

Skin Irritation (Rabbit): Slightly irritating

Dermal Sensitization (Guinea Pig): Not a contact sensitizer

TOXICOLOGICAL INFORMATION:

BIFENTHRIN:

CHRONIC TOXICITY: Data not available.

CARCINOGENICITY: EPA Group C : Possible Human Carcinogen.

MUTAGENIC POTENTIAL: None observed.

TERATOGENIC EFFECTS: None observed.

IMIDACLOPRID:

CHRONIC TOXICITY: In chronic dietary studies in rats and dogs exposed to imidacloprid, the target organs were the thyroid and/or liver.

CARCINOGENICITY: EPA Group E : Evidence of non-carcinogenicity for humans.

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REPRODUCTIVE: In two-generation reproduction study in rats, imidacloprid was not a primary reproductive toxicant. Offspring exhibited reduced body weights at the high dose and in conjunction with material toxicity.

NEUROTOXICITY: In acute and subchronic neurotoxicity screening studies in rats, imidacloprid produce slight neurobehavioral effects in each study at the highest dose tested. There were no correlating morphological changes observed in the neural tissues.

MUTAGENICITY: The imidacloprid mutagenicity studies, taken collectively, demonstrate that the active ingredient is not genotoxic or mutagenic.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL HAZARDS: 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 washwaters. This product is highly toxic to bees exposed to direct treatment or residues on 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 chemical imidacloprid demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

ECOTOXICOLOGICAL INFORMATION:

BIFENTHRIN: Bifenthrin is very highly toxic to fish, crustaceans and aquatic animals. Care should be taken to avoid contamination of the aquatic environment.

Rain trout LC₅₀: 0.00015 mg/L

Bluegill LC₅₀: 0.00035 mg/L

Daphnia magna EC₅₀: 0.0016 µg/L

Mallard Duck LD₅₀ (21-day): 2150 mg/kg

Bobwhite quail LD₅₀ (21-day): 1,800 mg/kg

IMIDACLOPRID: Imidacloprid is highly toxic to aquatic invertebrates.

96-hour LC₅₀ = 237 mg/L at 21°C (Golden orfe)

96-hour LC₅₀ = 280 mg/L at 24°C (Carp)

96-hour LC₅₀ = 211 mg/L at 15.4°C (Rainbow trout)

In a 21-day test (at 15°C) with rainbow trout the lowest observed effect concentration (LOEC) was determined to be 61.5 mg/L. The no observed effect concentration (NOEC) was 28.5 mg/L.

48-hour EC₅₀ = 85 mg/L at 20°C (Daphnia magna)

In a reproduction test with Daphnia magna, the NOEC was 1.8 mg/L. First effects were observed at 3.5 mg/L.

98-hour EC₅₀ > 10 mg/L at 23°C (Green algae)

LD₅₀ = 31 mg/kg/bw (Japanese quail)

LD₅₀ = 152 mg/kg/bw (Bobwhite quail)

LD₅₀ = 283 mg/kg/bw (Mallard duck)

LC₅₀ > 4797 mg/kg (5-day feeding test) (Mallard duck)

LC₅₀ = 2189 mg/kg (5-day feeding test) (Bobwhite quail)

LC₅₀ = 392 mg/kg (5-day feeding test) (Japanese quail)

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13. DISPOSAL CONSIDERATIONS

PESTICIDE DISPOSAL: 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.

CONTAINER DISPOSAL: Dispose of product containers, waste containers, and residues according to label instructions and local, state, and federal health and environmental regulations.

14. TRANSPORT INFORMATION**DOT CLASSIFICATION:**

Non-bulk and Bulk: UN 3352, Pyrethroid pesticides, liquid, toxic, 6.1, PGIII

INTERNATIONAL TRANSPORTATION:**IMO (vessel):** UN 3352, Pyrethroid pesticides, liquid, toxic (bifenthrin), 6.1, PGIII, Marine Pollutant**IATA (air):** UN 3352, Pyrethroid pesticides, liquid, toxic (bifenthrin), 6.1, PGIII, Marine Pollutant**15. REGULATORY INFORMATION****SARA TITLE III CLASSIFICATION:**

Section 302: Not applicable.

Section 311/312: Acute health hazard (immediate)

Chronic health hazard (delayed)

Section 313: Bifenthrin (CAS # 82657-04-3) 21.65%

CA PROPOSITION 65: Not applicable**CERCLA RQ:** Not applicable

RCRA CLASSIFICATION: 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.

TSCA STATUS: The ingredients of this product are listed on the TSCA inventory or exempt.

16. OTHER INFORMATION

HAZARD RATINGS	NFPA	HMIS		
HEALTH:	2	2	0	MINIMAL
FLAMMABILITY:	0	0	1	SLIGHT
REACTIVITY:	0	0	2	MODERATE
			3	HIGH
			4	SEVERE

MSDS DATE: 3-11-13

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