

Material Safety Data Sheet

Beleaf 50 SG Insecticide

SDS # : 6225-A
Revision Date: 2010-06-28
Version 1



This MSDS has been prepared to meet U.S. OSHA Hazard Communication Standard 29 CFR 1910.1200 and Canada's Workplace Hazardous Materials Information System (WHMIS) requirements.

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	Beleaf 50 SG Insecticide
Formula code	6225
Active Ingredient(s)	Flonicamid
Synonyms	N-(cyanomethyl)-4-(trifluoromethyl)-3-pyridinecarboxamide
Chemical Family	Pyridinecarboxamide Insecticide
Supplier	Emergency telephone number
FMC Corporation Agricultural Products Group 1735 Market Street Philadelphia, PA 19103 General Information: Phone: (215) 299-6000 E-Mail: msdsinfo@fmc.com	Medical Emergencies: (800) 331-3148 (U.S.A. & Canada) (651) 632-6793 (All Other Countries - Collect) For leak, fire, spill or accident emergencies, call: (800) 424-9300 (CHEMTREC - U.S.A.) (703) 527-3887 (CHEMTREC - Collect - All Other Countries)

2. Hazards identification

Appearance	Solid granules
Physical State	Solid
Odor	mild
Physical hazards	Combustible material
Potential health effects	
Acute effects	
Eyes	May cause slight irritation.
Skin	Does not pose a potential of skin irritation and sensitization.
Inhalation	May cause irritation of respiratory tract.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Chronic effects	Prolonged exposure may cause chronic effects. Repeated contact may cause allergic reactions in very susceptible persons. See Section 11 for additional Toxicological Information.
Environmental hazard	See Section 12 for additional Ecological Information.

3. Composition/information on ingredients

Hazardous ingredients

Chemical Name	CAS-No	Weight %
Flonicamid	158062-67-0	50
Formaldehyde condensate	RR-24503-4	1 - 5
Diocetyl sodium sulfosuccinate	577-11-7	1 - 5

4. First aid measures

Eye contact	Flush eyes with water for at least 15 minutes. Get medical attention if eye irritation develops or persists.
Skin contact	Take off contaminated clothing. Wash skin with soap and water. 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.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. If symptoms persist, call a physician.
Ingestion	If swallowed, call a poison control center or doctor immediately. Drink 1 or 2 glasses of water. Do not induce vomiting or give anything by mouth to an unconscious person.

5. Fire-fighting measures

Flammable properties Combustible material

Special hazards arising from the substance or mixture

Sensitivity to Mechanical Impact not applicable
Sensitivity to Static Discharge not applicable

Extinguishing media

Suitable extinguishing media Carbon dioxide (CO₂). Foam. Dry chemical. If necessary: Use water spray or fog; do not use straight streams.

Advice for fire-fighters

Protective equipment and precautions for firefighters Wear self-contained breathing apparatus and protective suit. Isolate fire area. Evaluate downwind.

NFPA

Health Hazard	1
Flammability	1
Stability	0
Special Hazards	-

6. Accidental release measures

Personal precautions Isolate and post spill area. Wear suitable protective clothing, gloves and eye/face protection. For personal protection see section 8.

Environmental precautions Keep people and animals away from and upwind of spill/leak. Keep material out of lakes, streams, ponds, and sewer drains.

Methods for containment	Cover powder spill with plastic sheet or tarp to minimize spreading. Use a wet sweeping compound or water to prevent dust formation. Dike far ahead of spill to collect runoff water. Vacuum, shovel or pump waste into a drum and label contents for disposal.
Methods for cleaning up	Clean and neutralize spill area, tools and equipment by washing with bleach water and soap. Absorb rinsate and add to the collected waste. Dispose of waste as indicated in Section 13.
OTHER INFORMATION	For further clean-up instructions call FMC Emergency Hotline number listed in Section 1 "Product and Company Identification" above.

7. Handling and storage

Handling	Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal. For personal protection see section 8.
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Store in original container only.

8. Exposure controls/personal protection

<u>Exposure guidelines</u>	This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
<u>Occupational exposure controls</u>	
Engineering measures	Apply technical measures to comply with the occupational exposure limits. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.
<u>Personal protective equipment</u>	
General Information	Clean water should be available for washing in case of eye or skin contamination. Wash hands prior to eating, drinking chewing gum or using tobacco. Shower at the end of the workday.
Respiratory protection	For dust, splash, mist or spray exposures wear a filtering mask.
Eye/face protection	For dust, splash, mist or spray exposure, wear chemical protective goggles or a face-shield.
Skin and body protection	Wear long-sleeved shirt, long pants, socks, shoes, and gloves.
Hand protection	Protective gloves
Hygiene measures	Clean water should be available for washing in case of eye or skin contamination. Wash skin prior to eating, drinking, chewing gum or using tobacco. Shower or bathe at the end of working. Remove and wash contaminated clothing before re-use. Launder work clothing separately from regular household laundry.

9. Physical and chemical properties

Appearance	Solid granules
Color	light brown
Physical State	Solid
Odor	mild
pH	6.0 @ 23 °C (1% solution)
Melting Point/Range	No information available
Freezing point	No information available

Boiling Point/Range	not applicable
Flash Point	not applicable
Evaporation rate	not applicable
Autoignition Temperature	not applicable
Flammable properties	Combustible material
Vapor pressure	not applicable
Vapor density	No information available
Density	33.5 lb/cu ft (loose); 37.2 lb/cu ft (tapped)
Specific Gravity	No information available
Bulk density	No information available
Water solubility	Soluble in water
Percent volatile	No information available
Partition coefficient:	not applicable
Autoignition Temperature	not applicable
Viscosity	No information available
Oxidizing properties	not applicable

10. Stability and reactivity

Stability	Stable
Conditions to avoid	Heat, flames and sparks
Hazardous decomposition products	Thermal decomposition can lead to release of irritating gases and vapors.
Hazardous polymerization	Hazardous polymerization does not occur

11. Toxicological information

Eye contact	May cause temporary eye irritation (rabbit).
Skin contact	Non-irritating during normal use (rabbit).
LD50 Dermal	Similar material: > 2,000 mg/kg (rat)
LD50 Oral	> 2,000 mg/kg (rat)
LC50 Inhalation:	> 5.36 mg/L 4 hr (rat)
Sensitization	Based on a similar formulation, this product is not expected to produce skin sensitization.
<u>Chronic Toxicity - Active Ingredient(s)</u>	
Chronic Toxicity	Prolonged exposure may cause chronic effects. Repeated contact may cause allergic reactions in very susceptible persons. See Section 11 for additional Toxicological Information.
Carcinogenicity	Suggestive evidence of carcinogenicity, but not sufficient to assess human carcinogenic potential.
Mutagenicity	Not mutagenic.
Reproductive toxicity	This product does not contain any known or suspected reproductive hazards at concentrations >0.1%.
Developmental Toxicity	Flonicamid: Not teratogenic in animal studies.

12. Ecological information

Ecotoxicity

Flonicamid (158062-67-0)

Active Ingredient	Duration	Species	Value	Units
Flonicamid Technical	96 h LC50	Bluegill sunfish, Rainbow trout	>100	mg/L
	96 h LC50	Sheepshead minnow	>120	mg/L
	48 h LC50	Daphnia magna	>100	mg/L

Other Ingredient(s)

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
Diocetyl sodium sulfosuccinate		LC50 20-40 mg/L Oncorhynchus mykiss 96 h LC50< 24 mg/L Oncorhynchus mykiss 96 h LC50= 37 mg/L Lepomis macrochirus 96 h		EC50 = 36 mg/L 48 h

Environmental Fate

Persistence and degradability Based on a similar formulation, biodegradation in soil is 1 - 10 days.

13. Disposal considerations

Waste disposal methods Can be incinerated, when in compliance with local regulations. The appropriate regulatory agencies should be contacted prior to disposal.

Contaminated packaging Dispose of in accordance with local regulations. Completely empty bag into application equipment. When completely empty, offer for recycling if available, or dispose of bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

14. Transport information

<u>Packaging Type</u>	Non-Bulk
<u>DOT</u>	Not regulated in transportation.
<u>TDG</u>	Not regulated in transportation.
<u>ICAO/IATA</u>	Not regulated in transportation.
<u>IMDG/IMO</u>	Not regulated in transportation.

15. Regulatory information

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

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

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

International Regulations

Mexico - Grade

No information available

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

Non-controlled

16. Other information

Revision Date: 2010-06-28
Reason for revision: No information available

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Prepared By

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End of Material Safety Data Sheet