

**SAFETY DATA SHEET**  
**CARBINE® 50 WG INSECTICIDE**

**SDS # :** 6226-A  
**Revision date:** 2016-05-26  
**Format:** NA  
**Version** 1.03



**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product Identifier**

**Product Name** CARBINE® 50 WG INSECTICIDE

**Other means of identification**

**Product Code(s)** 6226-A

**Synonyms** FLONICAMID: N-cyanomethyl-4-(trifluoromethyl)nicotinamide (IUPAC name);  
N-(cyanomethyl)-4-(trifluoromethyl)-3-pyridinecarboxamide (CAS name)

**Active Ingredient(s)** Flonicamid

**Chemical Family** Pyridinecarboxamide Insecticide

**Alternate Commercial Name** Turbine

**Recommended use of the chemical and restrictions on use**

**Recommended Use:** Insecticide

**Restrictions on Use:** Use as recommended by the label

**Manufacturer Address**

FMC Corporation  
2929 Walnut Street  
Philadelphia, PA 19104  
(215) 299-6000 (General Information)  
msdsinfo@fmc.com (E-Mail General Information)

**Emergency telephone number**

Medical Emergencies:  
1 800 / 331-3148 (PROSAR - U.S.A. & Canada)  
1 651 / 632-6793 (PROSAR - All Other Countries - Collect)  
For leak, fire, spill or accident emergencies, call:  
1 800 / 424 9300 (CHEMTREC - U.S.A.)  
1 703 / 527 3887 (CHEMTREC - Collect - All Other Countries)

**2. HAZARDS IDENTIFICATION**

**Classification**

**OSHA Regulatory Status**

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Specific target organ toxicity (single exposure)	Category 2
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**GHS Label elements, including precautionary statements**

**EMERGENCY OVERVIEW**

**Warning**

**Hazard Statements**  
 H371 - May cause damage to organs



**Precautionary Statements - Prevention**

P260 - Do not breathe dust/fume/gas/mist/vapors/spray  
 P264 - Wash face, hands and any exposed skin thoroughly after handling  
 P270 - Do not eat, drink or smoke when using this product

**Precautionary Statements - Response**

P308 + P311 - If exposed or concerned: Call a POISON CENTER or doctor

**Precautionary Statements - Storage**

P405 - Store locked up

**Precautionary Statements - Disposal**

P501 - Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

No hazards not otherwise classified were identified.

**Other Information**

May cause moderate eye irritation. May form combustible dust concentrations in air.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Chemical Family** Pyridinecarboxamide Insecticide.

Chemical name	CAS-No	Weight %
Flonicamid	158062-67-0	50

Synonyms are provided in Section 1.

**4. FIRST AID MEASURES**

**Eye Contact** Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Call a poison control center or doctor for further treatment advice.

**Skin Contact** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for further treatment advice.

**Inhalation** Move to fresh air. If person is not breathing, call 911 (within the U.S. and Canada) or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

**Ingestion** Call a poison control center or doctor immediately for treatment advice Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor Do not give anything by mouth to an unconscious person.

**Most important symptoms and** None known.

effects, both acute and delayed

**Indication of immediate medical attention and special treatment needed, if necessary**      Treat symptomatically.

**5. FIRE-FIGHTING MEASURES**

**Suitable Extinguishing Media**      Carbon dioxide (CO<sub>2</sub>). Foam. Dry chemical. If necessary: Use water spray or fog; do not use straight streams.

**Specific Hazards Arising from the Chemical**      Combustible material

**Hazardous Combustion Products**      Thermal decomposition can lead to release of irritating and toxic gases and vapors.

**Explosion data**

**Sensitivity to Mechanical Impact**      Not sensitive.

**Sensitivity to Static Discharge**      Not sensitive.

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

**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.

**Other**      For further clean-up instructions, call FMC Emergency Hotline number listed in Section 1 "Product and Company Identification" above.

**Environmental Precautions**      Keep people and animals away from and upwind of spill/leak. Keep material out of lakes, streams, ponds, and sewer drains. See Section 12 for additional Ecological Information.

**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. Waste must be classified and labeled prior to recycling or disposal. Dispose of waste as indicated in Section 13.

**7. HANDLING AND STORAGE**

**Handling**      Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal. Reference to other sections.

**Storage**      Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Keep/store only in original container.

**Incompatible products**      None known.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

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 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.

**Individual protection measures, such as personal protective equipment**

<b>Eye/Face Protection</b>	For dust, splash, mist or spray exposure, wear chemical protective goggles.
<b>Skin and Body Protection</b>	Wear long-sleeved shirt, long pants, socks, and shoes.
<b>Hand Protection</b>	Protective gloves
<b>Respiratory Protection</b>	For dust, splash, mist or spray exposures wear a filtering mask.
<b>Hygiene measures</b>	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.
<b>General information</b>	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 or bathe at the end of working.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

<b>Appearance</b>	Solid Granules
<b>Physical State</b>	Dry powder
<b>Color</b>	Light brown
<b>Odor</b>	Mild
<b>Odor threshold</b>	No information available
<b>pH</b>	6.0 @ 25 °C (1% solution)
<b>Melting point/freezing point</b>	Not applicable
<b>Boiling Point/Range</b>	No information available
<b>Flash point</b>	Not applicable
<b>Evaporation Rate</b>	No information available
<b>Flammability (solid, gas)</b>	No information available
<b>Flammability Limit in Air</b>	
<b>Upper flammability limit:</b>	No information available
<b>Lower flammability limit:</b>	No information available
<b>Vapor pressure</b>	No information available
<b>Vapor density</b>	No information available
<b>Density</b>	33.5 lb/cu ft (loose); 37.2 lb/cu ft (tapped)
<b>Specific gravity</b>	No information available
<b>Water solubility</b>	Soluble in water
<b>Solubility in other solvents</b>	No information available
<b>Partition coefficient</b>	No information available
<b>Autoignition temperature</b>	No information available
<b>Decomposition temperature</b>	No information available
<b>Viscosity, kinematic</b>	No information available
<b>Viscosity, dynamic</b>	No information available
<b>Explosive properties</b>	No information available
<b>Oxidizing properties</b>	No information available
<b>Molecular weight</b>	No information available
<b>Bulk density</b>	No information available

**10. STABILITY AND REACTIVITY**

<b>Reactivity</b>	None under normal use conditions.
<b>Chemical Stability</b>	Stable under recommended storage conditions.
<b>Possibility of Hazardous Reactions</b>	None under normal processing.
<b>Hazardous polymerization</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Heat, flames and sparks

**Incompatible materials** None known.  
**Hazardous Decomposition Products** Thermal decomposition can lead to release of irritating gases and vapors.

**11. TOXICOLOGICAL INFORMATION**

**Product Information**

**LD50 Oral** > 2002 2,000 mg/kg (rat)  
**LD50 Dermal** Similar material: > 2002 2,000 mg/kg (rat)  
**LC50 Inhalation** > 5.36 mg/L 4 hr (rat)

**Serious eye damage/eye irritation** Moderately irritating.  
**Skin corrosion/irritation** Non-irritating during normal use (rabbit).  
**Sensitization** Based on a similar formulation, this product is not expected to produce skin sensitization.

**Information on toxicological effects**

**Symptoms** No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Chronic toxicity** Flonicamid: Repeated contact may cause allergic reactions in very susceptible persons.  
**Mutagenicity** Flonicamid: Not genotoxic in laboratory studies.  
**Carcinogenicity** Flonicamid: Suggestive evidence of carcinogenicity (mouse bronchioloalveolar tumors), but not sufficient to assess human carcinogenic potential.  
**Neurological effects** Flonicamid: Not neurotoxic.  
**Reproductive toxicity** Flonicamid: No toxicity to reproduction in animal studies.  
**Developmental toxicity** Flonicamid: Not teratogenic in animal studies.  
**STOT - single exposure** May cause damage to organs: See listed target organs below.  
**STOT - repeated exposure** Not classified.  
**Target organ effects** Flonicamid: Liver Kidney Hematopoietic system  
**Neurological effects** Flonicamid: Not neurotoxic.  
**Aspiration hazard** No information available.

Chemical name	ACGIH	IARC	NTP	OSHA
Flonicamid 158062-67-0		Group 2A		

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

<b>Flonicamid (158062-67-0)</b>				
Active Ingredient(s)	Duration	Species	Value	Units
Flonicamid Technical	96 h LC50	Fish	>100	mg/L
	48 h EC50	Crustacea	>100	mg/L
	96 h EC50	Algae	>100	mg/L
	21 d NOEC	Fish	10	mg/L
	21 d NOEC	Crustacea	3.1	mg/L

**Persistence and degradability** Flonicamid: Non-persistent. Does not readily hydrolyze. Readily biodegradable (meets the >70% reduction in ≤ 28 days).

**Bioaccumulation** Flonicamid: The substance does not have a potential for bioconcentration.

**Mobility** Flonicamid: Very mobile; has potential to reach groundwater.

**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. Improper disposal of excess pesticide, spray mixture, or rinsate is prohibited. If these wastes cannot be disposed of by use according to label instructions, contact appropriate disposal authorities for guidance.

**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. Do not reuse or refill this container.

**14. TRANSPORT INFORMATION**

**DOT** This material is not a hazardous material as defined by U.S. Department of Transportation at 49 CFR Parts 100 through 185.

**TDG** Not regulated in transportation

**ICAO/IATA** Not regulated in transportation.  
**IMDG/IMO** 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**

<b>Acute health hazard</b>	Yes
<b>Chronic health hazard</b>	Yes
<b>Fire hazard</b>	No
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	No

**Clean Water Act**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Formaldehyde 50-00-0	100 lb			X
Naphthalene 91-20-3	100 lb	X	X	X

**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

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Formaldehyde 50-00-0	100 lb 45.4 kg	100 lb
Naphthalene 91-20-3	100 lb 45.4 kg	

**FIFRA Information**

*This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling*

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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:

### WARNING

Causes substantial, but temporary, eye injury. Harmful if swallowed or absorbed through the skin.

## US State Regulations

### California Proposition 65

This product contains the following Proposition 65 chemicals.

### U.S. State Right-to-Know Regulations

This product does not contain any substances regulated by state right-to-know regulations

## International Inventories

Chemical name	Mexico - Pollutant Release and Transfer Register - Reporting Emissions for Fabrication, Process or Use -Threshold Quantities	Pollutant Release and Transfer Register - Reporting Emissions - Threshold Quantities
Formaldehyde	100 2500 kg/yr	100 kg/yr

### WHMIS Statement

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

NFPA	Health Hazards 1	Flammability 1	Instability 0	Special Hazards -
HMIS	Health Hazards 1	Flammability 1	Physical hazard 0	Personal Protection X

Revision date: 2016-05-26  
Reason for revision: (M)SDS sections updated

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**End of Safety Data Sheet**