

**SAFETY DATA SHEET**  
Proaxis Insecticide

SDS # : FO002177-A  
Revision date: 2016-05-25  
Format: NA  
Version 1.01



**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product Identifier**

**Product Name** Proaxis Insecticide

**Other means of identification**

**Product Code(s)** FO002177-A

**Legacy Product Code** 15F/1526

**Synonyms** GAMMA-CYHALOTHRIN:  
(S)-cyano(3-phenoxyphenyl)methyl(1R,3R)-3-[(1Z)-2-chloro-3,3,3-trifluoro-1-propenyl]-2,2-dimethylcyclopropanecarboxylate (CAS name);  
(S)- $\alpha$ -cyano-3-phenoxybenzyl(1R,3R)-3-[(Z)-2-chloro-3,3,3-trifluoropropenyl]-2,2-dimethylcyclopropanecarboxylate (IUPAC name)

**Active Ingredient(s)** Gamma-cyhalothrin

**Formula** C<sub>23</sub>H<sub>19</sub>ClF<sub>3</sub>NO<sub>3</sub> (gamma-cyhalothrin)

**Chemical Family** Pyrethroid Pesticide

**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**

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)

Medical Emergencies:  
1 800 / 331-3148 (PROSAR - U.S.A. & Canada)  
1 651 / 632-6793 (PROSAR - All Other Countries - Collect)

**2. HAZARDS IDENTIFICATION**

**Classification**


**OSHA Regulatory Status**

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

Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin sensitization	Category 1B
Carcinogenicity	Category 2

### GHS Label elements, including precautionary statements

#### EMERGENCY OVERVIEW

<p><b>Warning</b></p> <p><b>Hazard Statements</b>          H305 - May be harmful if swallowed and enters airways          H317 - May cause an allergic skin reaction          H320 - Causes eye irritation          H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled          H350 - May cause cancer          H410 - Very toxic to aquatic life with long lasting effects</p> 
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#### **Precautionary Statements - Prevention**

P202 - Do not handle until all safety precautions have been read and understood  
 P260 - Do not breathe dust/fume/gas/mist/vapors/spray  
 P285 - In case of inadequate ventilation wear respiratory protection  
 P272 - Contaminated work clothing should not be allowed out of the workplace  
 P280 - Wear protective gloves and protective clothing

#### **Precautionary Statements - Response**

P308 + P313 - If exposed or concerned: Get medical advice/attention  
 P302 + P352 - IF ON SKIN: Wash with plenty of water and soap  
 P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention  
 P363 - Wash contaminated clothing before reuse  
 P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing  
 P310 - Immediately call a POISON CENTER or doctor

#### **Precautionary Statements - Storage**

P405 - Store locked up  
 P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

#### **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**

Toxic to aquatic life with long lasting effects. May be harmful in contact with skin.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Chemical Family** Pyrethroid Pesticide.

Chemical name	CAS-No	Weight %
Gamma-cyhalothrin	76703-62-3	5.9
Naphtha (petroleum), heavy aromatic	64742-94-5	1-5

Ethylendiamine	107-15-3	<1
Microcrystalline cellulose	9004-34-6	<1

Synonyms are provided in Section 1.

#### 4. FIRST AID MEASURES

<b>Eye Contact</b>	Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.
<b>Skin Contact</b>	Remove contaminated clothing and shoes. Do not start with flushing with water, but wipe off with dry cloth or using talcum powder, followed by washing with water and soap. Thereafter apply vitamin E cream or fatty skin care oil or cream. Call a poison control center or doctor for further treatment advice.
<b>Inhalation</b>	Move to fresh air. Remove from exposure, lie down. Call a poison control center or doctor for further treatment advice. 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.
<b>Ingestion</b>	Call a poison control center or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.
<b>Most important symptoms and effects, both acute and delayed</b>	Gamma-cyhalothrin can cause feelings of burning, tingling or numbness in exposed areas (paraesthesia).
<b>Indication of immediate medical attention and special treatment needed, if necessary</b>	. Induced vomiting as first aid for this substance may result in increased risk of chemical pneumonia or pulmonary edema caused by aspiration of the hydrocarbon solvent. Vomiting should be induced only under professional supervision.

#### 5. FIRE-FIGHTING MEASURES

<b>Suitable Extinguishing Media</b>	Dry chemical, Carbon dioxide (CO <sub>2</sub> ), Water spray, Foam. Avoid heavy hose streams.
<b>Specific Hazards Arising from the Chemical</b>	None known
<b>Hazardous Combustion Products</b>	The essential breakdown products are volatile, toxic, irritant and inflammable compounds such as: Nitrogen oxides (NO <sub>x</sub> ), Hydrogen chloride, Hydrogen fluoride, Hydrogen cyanide, Carbon monoxide, Carbon dioxide (CO <sub>2</sub> ), various chlorinated and fluorinated organic compounds.
<b>Explosion data</b>	
<b>Sensitivity to Mechanical Impact</b>	No information available.
<b>Sensitivity to Static Discharge</b>	No information available.
<b>Protective equipment and precautions for firefighters</b>	As in any fire, wear self-contained breathing apparatus and full protective gear. Approach fire from upwind to avoid hazardous vapours and toxic decomposition products.

#### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Isolate and post spill area. Remove all sources of ignition. Wear suitable protective clothing, gloves and eye/face protection. For personal protection see section 8.
<b>Other</b>	For further clean-up instructions, call FMC Emergency Hotline number listed in Section 1 "Product and Company Identification" above.
<b>Environmental Precautions</b>	Contain the spill to prevent any further contamination of surface, soil or water. Keep material out of lakes, streams, ponds, and sewer drains. Local authorities should be

advised if significant spillages cannot be contained. Keep people and animals away from and upwind of spill/leak.

**Methods for Containment**

Dike to prevent runoff. Absorb with earth, sand or other non-combustible material and transfer to containers for later 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**

Handle in accordance with good industrial hygiene and safety practice. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal. Handle product only in closed system or provide appropriate exhaust ventilation at machinery. Remove and wash contaminated clothing before re-use. Wash thoroughly after handling. Refer to Section 8.

**Storage**

Keep container tightly closed in a dry and well-ventilated place. Keep out of reach of children and animals. Keep away from food, drink and animal feedingstuffs. Keep/store only in original container. Keep in properly labeled containers. Protect against extremes of heat and cold.

**Incompatible products**

Oxidizing agents

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH	Mexico
Ethyldiamine (107-15-3)	TWA: 10 ppm	TWA: 10 ppm TWA: 25 mg/m <sup>3</sup>	IDLH: 1000 ppm TWA: 10 ppm TWA: 25 mg/m <sup>3</sup>	Mexico: TWA 10 ppm Mexico: TWA 25 mg/m <sup>3</sup> Mexico: STEL 3 mg/m <sup>3</sup>
Microcrystalline cellulose (9004-34-6)	TWA: 10 mg/m <sup>3</sup>	TWA: 15 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>	Mexico: TWA 10 mg/m <sup>3</sup> Mexico: STEL 20 mg/m <sup>3</sup>
Chemical name	British Columbia	Quebec	Ontario TWAEV	Alberta
Ethyldiamine (107-15-3)	TWA: 10 ppm Skin	TWA: 10 ppm TWA: 25 mg/m <sup>3</sup> Skin	TWA: 10 ppm  Skin	TWA: 10 ppm TWA: 25 mg/m <sup>3</sup> Skin
Microcrystalline cellulose (9004-34-6)	TWA: 10 mg/m <sup>3</sup> TWA: 3 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>

**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****Eye/Face Protection**

For dust, splash, mist or spray exposure, wear chemical protective goggles.

**Skin and Body Protection**

Wear suitable protective clothing. Protective shoes or boots.

**Hand Protection**

Use protective gloves made of chemical materials such as nitrile or neoprene. Wash the outside of gloves with soap and water before reuse. Check regularly for leaks.

**Respiratory Protection**

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be

required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**Hygiene measures**

Clean water should be available for washing in case of eye or skin contamination. Remove and wash contaminated clothing before re-use. Wash skin prior to eating, drinking, chewing gum or using tobacco. Shower or bathe at the end of working. Launder work clothing separately from regular household laundry.

**General information**

If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

<b>Appearance</b>	Beige liquid
<b>Physical State</b>	Suspension
<b>Color</b>	Beige
<b>Odor</b>	Slight
<b>Odor threshold</b>	No information available
<b>pH</b>	5.71 @ 23°C (1% solution in water)
<b>Melting point/freezing point</b>	< 0 °C
<b>Boiling Point/Range</b>	Not applicable (Decomposes)
<b>Flash point</b>	> 100 °C / > 200 °F Seta Closed Cup
<b>Evaporation Rate</b>	No information available
<b>Flammability (solid, gas)</b>	Not applicable (Product is a liquid)
<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>	1.019 g/mL @ 20 °C
<b>Specific gravity</b>	No information available
<b>Water solubility</b>	Dispersible in water
<b>Solubility in other solvents</b>	No information available
<b>Partition coefficient</b>	No information available
<b>Autoignition temperature</b>	> 400 °C
<b>Decomposition temperature</b>	No information available
<b>Viscosity, kinematic</b>	High viscosity
<b>Viscosity, dynamic</b>	High viscosity
<b>Explosive properties</b>	Not explosive
<b>Oxidizing properties</b>	Non-oxidizing
<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>	Decomposes on heating.
<b>Possibility of Hazardous Reactions</b>	None under normal processing.
<b>Hazardous polymerization</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Heating can release hazardous gases
<b>Incompatible materials</b>	Oxidizing agents.
<b>Hazardous Decomposition Products</b>	Carbon monoxide (CO), Hydrogen chloride, Hydrogen fluoride, Nitrogen oxides (NOx), Hydrogen cyanide, various chlorinated and fluorinated organic compounds.

## 11. TOXICOLOGICAL INFORMATION

**Product Information**

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LD50 Oral : 3257 mg/kg (rat)  
LD50 Dermal : > 5000 (rat) mg/kg  
LC50 Inhalation : > 2.31 mg/L 4 hr (rat)

Serious eye damage/eye irritation Moderately irritating to eyes.  
Skin corrosion/irritation Slightly irritating.  
Sensitization May cause sensitization by skin contact

### Information on toxicological effects

**Symptoms** Gamma-cyhalothrin can cause feelings of burning, tingling or numbness in exposed areas (paraesthesia).

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

**Mutagenicity** Gamma-cyhalothrin: Not mutagenic  
**Carcinogenicity** Gamma-cyhalothrin: Limited evidence of a carcinogenic effect  
**Neurological effects** Gamma-cyhalothrin: No information available  
**Reproductive toxicity** Gamma-cyhalothrin: No toxicity to reproduction in animal studies.  
**STOT - single exposure** None known.  
**STOT - repeated exposure** Central Nervous System.  
**Neurological effects** Gamma-cyhalothrin: No information available  
**Aspiration hazard** Potential for aspiration if swallowed. Risk of serious damage to the lungs (by aspiration).

Chemical name	ACGIH	IARC	NTP	OSHA
Gamma-cyhalothrin 76703-62-3		Group 2A		

IARC (International Agency for Research on Cancer)  
Group 2A - Probably Carcinogenic to Humans

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Very toxic to aquatic life with long lasting effects.

**Persistence and degradability** Gamma-cyhalothrin. Not readily biodegradable.  
**Bioaccumulation** Gamma-cyhalothrin: The substance has a potential for bioconcentration.  
**Mobility** Gamma-cyhalothrin: Is not likely mobile in the environment.

## 13. DISPOSAL CONSIDERATIONS

**Waste disposal methods** 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. Proper personal protective equipment, as described in Sections 7 and 8, must be worn while handling materials for waste disposal.  
**Contaminated Packaging** Containers must be disposed of in accordance with local, state and federal regulations. Refer to the product label for container disposal instructions.

## 14. TRANSPORT INFORMATION

**DOT** NOT REGULATED

**TDG**

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**UN/ID no** UN3082  
**Proper Shipping Name** Environmentally hazardous substance, liquid, n.o.s.  
**Hazard class** 9  
**Packing Group** III  
**Marine Pollutant** Gamma-cyhalothrin.  
**Description** UN3082, Environmentally hazardous substance, liquid, n.o.s. (gamma-cyhalothrin), 9, III, Marine pollutant

**ICAO/IATA**

**UN/ID no** UN3082  
**Proper Shipping Name** Environmentally hazardous substance, liquid, n.o.s.  
**Hazard class** 9  
**Packing Group** III  
**Description** UN3082, Environmentally hazardous substance, liquid, n.o.s. (gamma-cyhalothrin), 9, III, Marine pollutant

**IMDG/IMO**

**UN/ID no** UN3082  
**Proper Shipping Name** Environmentally hazardous substance, liquid, n.o.s.  
**Hazard class** 9  
**Packing Group** III  
**EmS No.** F-A, S-F  
**Marine Pollutant** Gamma-cyhalothrin  
**Description** UN3082, Environmentally hazardous substance, liquid, n.o.s. (gamma-cyhalothrin), 9, III, Marine pollutant

**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>	Yes
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	No

**Clean Water Act**

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Aluminum Sulfate 10043-01-3	5000 lb			X
Ethylendiamine 107-15-3	5000 lb			X
Sodium Hydroxide 1310-73-2	1000 lb			X

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Aluminum Sulfate	5000 lb	

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10043-01-3	2270 kg	
Methylene bisphenyl isocyanate (MDI) 101-68-8	5000 lb 2270 kg	
Ethylendiamine 107-15-3	5000 lb 2270 kg	5000 lb
Sodium Hydroxide 1310-73-2	1000 lb 454 kg	

**FIFRA Information**

*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:*

**CAUTION**

*Causes moderate eye irritation. Harmful if swallowed. Avoid contact with eyes, skin, or clothing. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals.*

*This pesticide is extremely toxic to fish and aquatic organisms and toxic to wildlife.*

**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
Ethylendiamine 107-15-3	X	X	X
Microcrystalline cellulose 9004-34-6	X	X	X

**International Inventories**

Chemical name	TSCA (United States)	DSL (Canada)	EINECS/ELINCS (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
Gamma-cyhalothrin 76703-62-3			X					
Naphtha (petroleum), heavy aromatic 64742-94-5	X	X	X	X	X	X	X	X
Ethylendiamine 107-15-3	X	X	X	X	X	X	X	X
Microcrystalline cellulose 9004-34-6	X	X	X	X	X	X	X	X

**Mexico - Grade**

Moderate risk, Grade 2

Chemical name	Carcinogen Status	Mexico
Ethylendiamine		Mexico: TWA 10 ppm Mexico: TWA 25 mg/m <sup>3</sup> Mexico: STEL 3 mg/m <sup>3</sup>
Microcrystalline cellulose		Mexico: TWA 10 mg/m <sup>3</sup> Mexico: STEL 20 mg/m <sup>3</sup>



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
Methylene bisphenyl isocyanate (MDI)	100 5000 kg/yr	100 kg/yr

WHMIS Hazard Class D1B - Toxic materials



**16. OTHER INFORMATION**

NFPA	Health Hazards 2	Flammability 1	Instability 0	Special Hazards -
HMIS	Health Hazards 2	Flammability 1	Physical hazard - 0	Personal Protection -

Revision date: 2016-05-25  
 Reason for revision: Initial Release

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**End of Safety Data Sheet**