

**SAFETY DATA SHEET**  
Residual Fogger

SDS #: 6596-A  
Revision date: 2016-05-26  
Format: NA  
Version 1.03



**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product Identifier**

**Product Name** Residual Fogger

**Other means of identification**

**Product Code(s)** 6596-A

**Synonyms** PIPERONYL BUTOXIDE: Butylcarbityl(6-propylpiperonyl) ether, 1,3-Benzodioxole, 5-[[2-(2-butoxyethoxy)ethoxy]methyl]-6-propyl-; N-OCTYL BICYCLOHEPTENE DICARBOXIMIDE: N-(2-ethylhexyl)-5-norbornene-2,3-dicarboximide; N-(2-ethylhexyl)-8,9,10-trinorborn-5-ene-2,3-dicarboximide; Pyrethrins and Pyrethroids, Pyrethrum

**Active Ingredient(s)** Pyrethrins, Piperonyl Butoxide, n-Octyl bicycloheptene dicarboximide, Esfenvalerate

**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)

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2B
Flammable Aerosols	Category 1

**GHS Label elements, including precautionary statements**

## EMERGENCY OVERVIEW

**Danger****Hazard Statements**

H315 - Causes skin irritation

H320 - Causes eye irritation

**Physical Hazards**

H222 - Extremely flammable aerosol

H229 - Pressurized container: May burst if heated

**Precautionary Statements - Prevention**

P264 - Wash face, hands and any exposed skin thoroughly after handling

P210 - Keep away from heat/sparks/open flames/hot surfaces. No smoking

P211 - Do not spray on an open flame or other ignition source

P251 - Do not pierce or burn, even after use

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P337 + P313 - If eye irritation persists: Get medical advice/ attention

P302 + P352 - IF ON SKIN: Wash with plenty of water and soap

P332 + P313 - If skin irritation occurs: Get medical advice/attention

P362 + P364 - Take off all contaminated clothing and wash it before reuse

**Precautionary Statements - Storage**

P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F

**Hazards not otherwise classified (HNOC)**

No hazards not otherwise classified were identified.

**Other Information**

Very toxic to aquatic life with long lasting effects.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS-No	Weight %
Pyrethrins	8003-34-7	0.05
Piperonyl butoxide	51-03-6	0.1
n-Octyl bicycloheptene dicarboximide	113-48-4	0.2
Benzeneacetic acid, 4-chloro-.alpha.-(1-methylethyl)-, cyano (3-phenoxyphenyl)methyl ester, (S-(R*,R*))-	66230-04-4	0.1-1
Propane	74-98-6	10-20
Butane	106-97-5	5-10
Petroleum distillates, hydrotreated light	64742-47-8	5-10
Isobutane	75-28-5	5-10

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>	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.
<b>Inhalation</b>	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.
<b>Ingestion</b>	Immediately call a poison control center or doctor. 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 induce vomiting or give anything by mouth to an unconscious person.
<b>Most important symptoms and effects, both acute and delayed</b>	None known.
<b>Indication of immediate medical attention and special treatment needed, if necessary</b>	Treat symptomatically.

**5. FIRE-FIGHTING MEASURES**

<b>Suitable Extinguishing Media</b>	Foam. Carbon dioxide (CO <sub>2</sub> ). Dry chemical. Water spray.
<b>Specific Hazards Arising from the Chemical</b>	Contents under pressure.
<b>Explosion data</b>	
<b>Sensitivity to Mechanical Impact</b>	Not sensitive.
<b>Sensitivity to Static Discharge</b>	Not sensitive.
<b>Protective equipment and precautions for firefighters</b>	Isolate fire area. Evaluate downwind. In the event of fire, wear self contained breathing apparatus.

**6. ACCIDENTAL RELEASE MEASURES**

<b>Personal Precautions</b>	Isolate and post spill area. Remove all sources of ignition. Ventilate the area. Wear suitable protective clothing, gloves and eye/face protection. For personal protection see section 8. If ventilation is not possible wear full protection suit and chemical protective equipment.
<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>	See Section 12 for additional Ecological Information.
<b>Methods for Containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	Transfer damaged cartridges or cans to containers for later disposal. Clean and neutralize spill area, tools and equipment by washing with bleach water and soap. Waste must be classified and labeled prior to recycling or disposal. Dispose of waste as indicated in Section 13. Rinsate may be disposed at a waste water treatment plant.

**7. HANDLING AND STORAGE**

<b>Handling</b>	Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal. BEWARE: Aerosol is pressurized. Keep away from direct sun exposure and temperatures over 130°F. Do not open by force or throw into fire even after use. Do not spray on flames or red-hot objects.
<b>Storage</b>	Keep in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces

and sources of ignition. Keep out of reach of children and animals. Keep/store only in original container.

**Incompatible products**

Strong oxidizing agents. Bases. Powdered earth metals.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH	Mexico
Pyrethrins (8003-34-7)	TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>	IDLH: 5000 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>	Mexico: TWA 5 mg/m <sup>3</sup> Mexico: STEL 10 mg/m <sup>3</sup>
Propane (74-98-6)	:	TWA: 1000 ppm TWA: 1800 mg/m <sup>3</sup>	IDLH: 2100 ppm TWA: 1000 ppm TWA: 1800 mg/m <sup>3</sup>	-
Isobutane (75-28-5)	STEL 1000 ppm	-	TWA: 800 ppm TWA: 1900 mg/m <sup>3</sup>	-
Chemical name	British Columbia	Quebec	Ontario TWAEV	Alberta
Pyrethrins (8003-34-7)	TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>
Propane (74-98-6)	TWA: 1000 ppm	TWA: 1000 ppm TWA: 1800 mg/m <sup>3</sup>	TWA: TWA: 1000 ppm	TWA: 1000 ppm
Petroleum distillates, hydrotreated light (64742-47-8)	TWA: 200 mg/m <sup>3</sup> Skin	-	-	-
Isobutane (75-28-5)	TWA: 1000 ppm	-	TWA: 800 ppm TWA: 1000 ppm STEL: 1000 ppm	-

**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**

If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles.

**Skin and Body Protection**

Wear long-sleeved shirt, long pants, socks, and shoes.

**Hand Protection**

Protective gloves

**Respiratory Protection**

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. 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. 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.

**General information**

If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers. These recommendations apply to the product as supplied

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

Appearance	Mist
Physical State	Aerosol
Color	No information available
Odor	Mild
Odor threshold	No information available
pH	6.59
Melting point/freezing point	Not applicable
Boiling Point/Range	No information available
Flash point	66.7 °C / 152 °F Tag Closed Cup
Evaporation Rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	No information available
Vapor density	No information available
Density	8.28 lb/gal
Specific gravity	No information available
Water solubility	Soluble in water
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity, kinematic	No information available
Viscosity, dynamic	No information available
Explosive properties	No information available
Oxidizing properties	No information available
Molecular weight	No information available
Bulk density	No information available

## 10. STABILITY AND REACTIVITY

Reactivity	Not applicable
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	To avoid thermal decomposition, do not overheat Keep away from open flames, hot surfaces and sources of ignition
Incompatible materials	Strong oxidizing agents. Bases. Powdered earth metals.
Hazardous Decomposition Products	Carbon monoxide (CO). Carbon dioxide (CO <sub>2</sub> ).

## 11. TOXICOLOGICAL INFORMATION

### Product Information

LD50 Oral	> 5000 mg/kg
LD50 Dermal	> 5000 2000 mg/kg
LC50 Inhalation	> 3.03 mg/L 4 hr
Serious eye damage/eye irritation	Moderately irritating to eyes.
Skin corrosion/irritation	Moderately irritating.
Sensitization	Non-sensitizing

### Information on toxicological effects

**Symptoms** Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal.

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

**Mutagenicity** Piperonyl butoxide ether may affect mammalian liver microsomal detoxification enzymes. n-Octyl bicycloheptene dicarboximide was negative in a chromosome aberration assay,.  
**Carcinogenicity** Not recognized as carcinogenic by Research Agencies (IARC, NTP, OSHA, ACGIH)  
**Reproductive toxicity** No information available.  
**STOT - single exposure** Not classified.  
**STOT - repeated exposure** Not classified.  
**Target organ effects** Mice fed 0.3 or 0.9% piperonyl butoxide in the diet for 20 days had increased liver weight and other signs of liver toxicity. Male rats given up to 2.4% of piperonyl butoxide in the diet for up to 12 weeks had clinical and histologic signs of liver damage; the highest dose group showed preneoplastic changes, including enlargement of hepatocyte nuclei and multinucleated cells. Kidney damage was also seen.  
**Aspiration hazard** No information available.

Chemical name	ACGIH	IARC	NTP	OSHA
Pyrethrins 8003-34-7		Group 2A		
Piperonyl butoxide 51-03-6		Group 3		
Benzeneacetic acid, 4-chloro-.alpha.-(1-methylethyl)-, cyano (3-phenoxyphenyl)methyl ester, (S-(R*,R*))- 66230-04-4		Group 3		

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Piperonyl butoxide (51-03-6)				
Active Ingredient(s)	Duration	Species	Value	Units
Piperonyl Butoxide	LC50	Fish	3.94	ppm
	LD50	Bee	25	µg/bee
	LD50	Bobwhite quail	>2250	mg/kg
	LD50	Mallard duck	>5620	ppm

**Persistence and degradability** No information available.

**Bioaccumulation** No information available.

## 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.

**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** USDOT is requiring that products formerly classified as "Consumer Commodity, ORM-D" transition to "Limited Quantity" by 12/31/2020. During the transition period the 49CFR carton shipping marks may be Consumer Commodity (old) or Limited Quantity Diamond

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(new). Please prepare shipping documents to match the carton mark.

**Proper Shipping Name** Consumer commodity  
**Hazard class** ORM-D  
**TDG**  
**UN/ID no** UN1950  
**Proper Shipping Name** Aerosols  
**Hazard class** 2.1  
**Marine Pollutant** Benzeneacetic acid, 4-chloro-.alpha.-(1-methylethyl)-, cyano (3-phenoxyphenyl)methyl ester, (S-(R\*,R\*))-.  
**Description** UN1950, Aerosols, 2.1, Marine Pollutant (Benzeneacetic acid, 4-chloro-.alpha.-(1-methylethyl)-, cyano (3-phenoxyphenyl)methyl ester, (S-(R\*,R\*))-)

**ICAO/IATA**  
**UN/ID no** ID8000  
**Proper Shipping Name** Consumer commodity  
**Hazard class** 9  
**IMDG/IMO**  
**UN/ID no** UN1950  
**Proper Shipping Name** Aerosols  
**Hazard class** 2  
**EmS No.** F-D, S-U  
**Marine Pollutant** Benzeneacetic acid, 4-chloro-.alpha.-(1-methylethyl)-, cyano (3-phenoxyphenyl)methyl ester, (S-(R\*,R\*))-.  
**Description** UN1950, Aerosols, 2.1, Marine Pollutant (Benzeneacetic acid, 4-chloro-.alpha.-(1-methylethyl)-, cyano (3-phenoxyphenyl)methyl ester, (S-(R\*,R\*))-)

**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 contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical name	CAS-No	Weight %	SARA 313 - Threshold Values %
Piperonyl butoxide - 51-03-6	51-03-6	0.1	1.0

**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

**Clean Water Act**

This product contains the following substances which are regulated 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
Pyrethrins 8003-34-7	1 lb			

**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
Pyrethrins	1 lb	

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8003-34-7	0.454 kg	
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### 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

Harmful if absorbed through skin. Causes moderate eye irritation.

## 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
Pyrethrins 8003-34-7	X	X	X
Piperonyl butoxide 51-03-6	X		
Propane 74-98-6	X	X	X
Isobutane 75-28-5	X	X	X

### International Inventories

Chemical name	TSCA (United States)	DSL (Canada)	EINECS/ELINC S (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
Pyrethrins 8003-34-7		X	X		X	X	X	X
Piperonyl butoxide 51-03-6	X	X	X	X	X	X	X	X
n-Octyl bicycloheptene dicarboximide 113-48-4		X	X	X	X		X	X
Benzeneacetic acid, 4-chloro-.alpha.-(1-meth ylethyl)-, cyano (3-phenoxyphenyl)meth yl ester, (S-(R*,R*))- 66230-04-4					X	X		X
Propane 74-98-6	X	X	X	X	X	X	X	X
Petroleum distillates, hydrotreated light 64742-47-8	X	X	X		X	X	X	X
Isobutane 75-28-5	X	X	X	X	X	X	X	X

Chemical name	Carcinogen Status	Mexico
Pyrethrins		Mexico: TWA 5 mg/m <sup>3</sup> Mexico: STEL 10 mg/m <sup>3</sup>



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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
Pyrethrins	500 2500 kg/yr	500 kg/yr

**WHMIS Hazard Class**            A - Compressed gases  
     B5 - Flammable aerosol  
     D2B - Toxic materials



**16. OTHER INFORMATION**

<b>NFPA</b>	<b>Health Hazards</b> 2	<b>Flammability</b> 4	<b>Instability</b> 0	<b>Special Hazards</b> -
<b>HMIS</b>	<b>Health Hazards</b> 2*	<b>Flammability</b> 4	<b>Physical hazard</b> 0	<b>Personal Protection</b> X

**NFPA/HMIS Ratings Legend**                    \* - Chronic hazard

**Revision date:**                                    2016-05-26  
**Reason for revision:**                         Format Change

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**End of Safety Data Sheet**