MATERIAL SAFETY DATA SHEET

Syngenta Crop Protection, LLC
Post Office Box 18300
Greensboro, NC 27419

In Case of Emergency, Call
1-800-888-8372

1. PRODUCT IDENTIFICATION

Product Name: **PIRIMOR 50-DF** Product No.: A10788A

EPA Signal Word: Warning

Active Ingredient(%): Pirimicarb Technical (50%) CAS No.: 23103-98-2

Chemical Name: 2-(dimethylamino)-5,6-dimethyl-4-pyrimidinyl

Chemical Class: A carbamate insecticide

EPA Registration Number(s): 100-1073 **Section(s) Revised: 2, 3, 5, 7**

2. HAZARDS IDENTIFICATION

Health and Environmental

Toxic if swallowed. Harmful if inhaled. May be harmful in contact with skin. Causes eye and skin irritation. This product is a cholinesterase inhibitor. Principal routes of exposure are skin contact and inhalation. Symptoms of cholinesterase inhibition may include salivation, sweating, headache, nausea, muscle twitching, tremors, poor coordination, blurred vision, tears, abdominal cramps, diarrhea and chest discomfort.

May form flammable dust-air mixture.

Hazardous Decomposition Products

None known.

Physical Properties

Appearance: Blue green to green granules

Odor: Odorless

Unusual Fire, Explosion and Reactivity Hazards

Fire will spread by burning with flame.

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

See also Sec. 7.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Material	OSHA PEL	ACGIH TLV	Other	NTP/IARC/OSHA Carcinogen
Crystalline Silica, Quartz and Cristobalite	10 mg/m³/(%SiO2+2) (respirable dust)	0.025 mg/m³ (respirable silica)	0.05 mg/m³ (respirable dust) **	IARC 1; ACGIH 1
Talc	20 mppcf (containing <1% quartz) TWA	2 mg/m³ (respirable; <1% crystalline silica) TWA	2 mg/m³ (respirable; <1% quartz) TWA **	IARC Group 3
Pirimicarb Technical (50%)	Not Established	Not Established	1 mg/m³ TWA ***	No

** recommended by NIOSH

*** Syngenta Occupational Exposure Limit (OEL)

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.
Syngenta Hazard Category: C, S

4. FIRST AID MEASURES

Have the product container, label or Material Safety Data Sheet with you when calling Syngenta (800-888-8372), a poison contol center or doctor, or going for treatment.

Ingestion: If swallowed: Call Syngenta (800-888-8372), a poison control center or doctor immediately for treatment advice. Have the person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so after calling 800-888-8372 or by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Eye Contact: If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

Skin Contact: If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call Syngenta (800-888-8372), a poison control center or doctor for treatment advice.

Inhalation: If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call Syngenta (800-888-8372), a poison control center or doctor for further treatment advice.

Notes to Physician

This product is a cholinesterase inhibitor. If cholinesterase inhibition is suspected, atropine by injection is antidotal. Pralidoxime chloride (2-PAM, Protopam) has shown utility as an adjunctive therapy. Never use morphine. Continued absorption of the poison may occur resulting in fatal relapse after initial improvement. Very close supervision of the patient is indicated for 48-72 hours.

Medical Condition Likely to be Aggravated by Exposure

None known.

5. FIRE FIGHTING MEASURES

Fire and Explosion

Flash Point (Test Method):	Not Applicable	
Flammable Limits (% in Air):	Lower: Not Applicable	Upper: Not Applicable
Autoignition Temperature:	Not Available	
Flammability:	Not Applicable	

Unusual Fire, Explosion and Reactivity Hazards

Fire will spread by burning with flame.

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

See also Sec. 7.

In Case of Fire

Use appropriate extinguishing media for combustibles in the area. Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect runoff.

6. ACCIDENTAL RELEASE MEASURES

In Case of Spill or Leak

Avoid dust formation.

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Sweep up material and place in a compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

7. HANDLING AND STORAGE

This material is capable of forming flammable dust clouds in air, which, if ignited, can produce a dust cloud explosion. Flames, hot surfaces, mechanical sparks and electrostatic discharges can serve as ignition sources for this material. Electrical equipment should be compatible with the flammability characteristics of this material. The flammability characteristics will be made worse if the material contains traces of flammable solvents or is handled in the presence of flammable solvents.

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

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

Ingestion:	Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.
Eye Contact:	Where eye contact is likely, use dust-proof chemical goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
Skin Contact:	Where contact is likely, wear chemical-resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride [PVC] or Viton), coveralls, socks and chemical-resistant footwear.
Inhalation:	A respirator is not normally required when handling this substance. Use effective engineering controls to comply with occupational exposure limits. In case of emergency spills, use a NIOSH approved respirator with any N, R, P or HE filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Blue green to green granules
Odor:	Odorless
Melting Point:	189 °F
Boiling Point:	Not Applicable
Specific Gravity/Density:	0.4 - 0.6 g/cm³
pH:	6 - 10 (1% in deionized water)

Solubility in H2O

Pirimicarb Technical:	3 g/l @ 68°F (20°C)

Vapor Pressure

Pirimicarb Technical:	7.3 x 10(-6) mmHg @ 77°F (25°C)

10. STABILITY AND REACTIVITY

Stability:	Stable under normal use and storage conditions.
Hazardous Polymerization:	Will not occur.
Conditions to Avoid:	None known.
Materials to Avoid:	Oxidizing agents.
Hazardous Decomposition Products:	None known.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies (Finished Product)

Ingestion:		
	Oral (LD50 Rat) :	87 mg/kg body weight
Dermal:		
	Dermal (LD50 Rat) :	> 2000 mg/kg body weight
Inhalation:		
	Inhalation (LC50 Rat) :	1.41 mg/l air - 4 hours
Eye Contact:	Moderately Irritating (Rabbit)	
Skin Contact:	Slightly Irritating (Rabbit)	
Skin Sensitization:	Not a Sensitizer (Guinea Pig)	

Reproductive/Developmental Effects

Pirimicarb Technical: A 2-generation reproduction study showed no evidence for fertility or reproduction effects at doses below those causing maternal toxicity. The reproductive NOEL was at least 750 ppm (approx. 88 mg/kg/day).

Chronic/Subchronic Toxicity Studies

Pirimicarb Technical: Overall NOEL for subchronic toxicity studies in the rat is 175 ppm (approx. 17.5 mg/kg/day) based on a decrease in body weight gain. NOEL for chronic studies in the dog is 3.5 mg/kg/day based on hematological changes.

Carcinogenicity

Pirimicarb Technical: An acute neurotoxocity study in the rat produced reversible signs of neurotoxicity at a single dose of 110 mg/kg. The NOEL was 40 mg/kg. In a 90-day study, reduced growth and food consumption were observed at 250 and 1000 ppm, but no neurological effects were noted. No evidence of carcinogenicity in rat studies at doses up to 2500 ppm (approx. 125 mg/kg/day). A small increase in the incidence of benign lung adenomas was seen in female mice at a maximally tolerated dose level. From these studies it was concluded that pirimicarb does not pose a carcinogenic risk to humans.

Other Toxicity Information

This product is a cholinesterase inhibitor. Principal routes of exposure are skin absorption and inhalation. Severe cases of cholinesterase inhibition may lead to convulsions, pulmonary edema, respiratory failure and death.

Toxicity of Other Components

Crystalline Silica, Quartz and Cristobalite

Chronic inhalation exposure to crystalline silica is known to cause silicosis and pulmonary fibrosis in humans. Experimental animals exposed to crystalline silica developed respiratory tract cancers.

Talc

Limited potential for respiratory disease.

Target Organs

Active Ingredients

Pirimicarb Technical: CNS, blood system

Inert Ingredients

Crystalline Silica, Quartz and Cristobalite: Respiratory tract

Talc: Respiratory tract

12. ECOLOGICAL INFORMATION

Ecotoxicity Effects

Pirimicarb Technical:

Fish (Rainbow Trout) 96-hour LC50 29 ppm

Invertebrate (Water Flea) Daphnia Magna 48-hour EC50 0.0065 ppm

Bird (Mallard Duck) 14-day LD50 17.2 mg/kg

Environmental Fate

Pirimicarb Technical:

The information presented here is for the active ingredient, pirimicarb.
Does not bioaccumulate. Not persistent in soil. Low mobility in soil. Sinks in water (after 24 h).

13. DISPOSAL CONSIDERATIONS

Disposal

Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

Characteristic Waste: Not Applicable

Listed Waste: Not Applicable

14. TRANSPORT INFORMATION

DOT Classification

Ground Transport - NAFTA
Proper Shipping Name: Carbamate Pesticides, Solid, Toxic, N.O.S. (Pirimicarb)
Hazard Class or Division: Class 6.1
Identification Number: UN 2757
Packing Group: PG III

Comments

Water Transport - International
Proper Shipping Name: Carbamate Pesticides, Solid, Toxic, N.O.S. (Pirimicarb)
Hazard Class or Division: Class 6.1
Identification Number: UN 2757
Packing Group: PG III

15. REGULATORY INFORMATION

EPCRA SARA Title III Classification

Section 311/312 Hazard Classes: Acute Health Hazard
Chronic Health Hazard

Section 313 Toxic Chemicals: Not Applicable

California Proposition 65

Not Applicable

CERCLA/SARA 302 Reportable Quantity (RQ)

None

RCRA Hazardous Waste Classification (40 CFR 261)

Not Applicable

TSCA Status

Exempt from TSCA, subject to FIFRA

16. OTHER INFORMATION

NFPA Hazard Ratings		HMIS Hazard Ratings	
Health:	2	Health:	2
Flammability:	1	Flammability:	1
Instability:	0	Reactivity:	0

0	Minimal
1	Slight
2	Moderate
3	Serious
4	Extreme

For non-emergency questions about this product call:

1-800-334-9481

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The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.

End of MSDS