

Syngenta Crop Protection, Inc.
Post Office Box 18300
Greensboro, NC 27419

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

1. PRODUCT IDENTIFICATION

Product Name:	DEMON WP	Product No.:	A12839A
EPA Signal Word:	Warning		
Active Ingredient(%):	Cypermethrin (40.0%)	CAS No.:	52315-07-8
Chemical Name:	a-cyano-(3-phenoxyphenyl)methyl-cis, trans-3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropanecarboxylate		
Chemical Class:	A pyrethroid insecticide		
EPA Registration Number(s):	100-990; 100-1000	Section(s) Revised: 2, 5, 7, 12, 15, 16	

2. HAZARDS IDENTIFICATION

Health and Environmental

Irritating to eyes. Harmful in contact with skin and if swallowed. May cause sensitization by skin contact. May cause temporary itching, tingling, burning or numbness of exposed skin, called paresthesia. May form flammable dust-air mixture.

Hazardous Decomposition Products

Hydrogen cyanide gas may develop in the headspace of containers at normal storage temperatures. May decompose at high temperatures forming toxic gases, including hydrogen cyanide.

Physical Properties

Appearance: Off-white powder
Odor: Slightly aromatic

Unusual Fire, Explosion and Reactivity Hazards

This product is a combustible powder and like all combustible powders can ignite, burn and form explosive mixtures with air if not handled correctly. Mixtures of powder in air with flammable solvent vapors should be avoided.

This product has a minimum ignition energy between 10 and 30 millijoules. Static electricity, mechanical sparks, open flames, and certain hot surfaces can serve as ignition sources for this material.

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Material	OSHA PEL	ACGIH TLV	Other	NTP/IARC/OSHA Carcinogen
Amorphous Silica	80 mg/m ³ %SiO ₂ TWA (total dust)	10 mg/m ³ TWA (inhalable dust)	Not Established	IARC Group 3
Calcium Silicate	15 mg/m ³ TWA (total); 5 mg/m ³ TWA (respirable)	10 mg/m ³ TWA (irritation)	10 mg/m ³ TWA (total); 5 mg/m ³ TWA (respirable) **	No
Cypermethrin (40.0%)	Not Established	Not Established	0.5 mg/m ³ TWA ***	No

** recommended by NIOSH

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 control 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

There is no specific antidote if this product is ingested.

Treat symptomatically.

Persons suffering a temporary allergic reaction may respond to treatment with antihistamines or steroid creams and/or systemic steroids.

Skin contact paresthesia effects (itching, tingling, burning or numbness) are transient, lasting up to 24 hours. Treat symptomatically.

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

This product is a combustible powder and like all combustible powders can ignite, burn and form explosive mixtures with air if not handled correctly. Mixtures of powder in air with flammable solvent vapors should be avoided.

This product has a minimum ignition energy between 10 and 30 millijoules. Static electricity, mechanical sparks, open flames, and certain hot surfaces can serve as ignition sources for this material.

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

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

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 product is not considered electrically conductive at low relative humidity.

Handle this material only in electrically conductive equipment. Electrically ground and bond this equipment as well as any worker who could contact a dust cloud formed of this material. Eliminate the presence of mechanical sparks and other ignition sources where dust clouds of this material could form. Bulk bags (FIBC) used to contain this material should be either type B or type C. If type C bags are used make sure they are electrically grounded before powder is discharged from the bag.

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, PACKAGING AND USE 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 chemical splash 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 (such as nitrile or butyl) gloves, coveralls, socks and chemical-resistant footwear. For overhead exposure, wear chemical-resistant headgear. Stringent housekeeping measures are necessary to prevent translocation of the material from contaminated work surfaces to uncontaminated surfaces (railings, doors, etc.). Unprotected contact with such translocated material can result in paresthesia effects (see Section 11).
- Inhalation: A particulate filter respirator may be necessary until effective engineering controls are installed to comply with occupational exposure limits. Use a NIOSH approved respirator with any HE filter.

Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.

Avoid breathing air from drum headspace. Hydrogen cyanide gas may be released during opening and dispensing, and in case of spills. Use local exhaust ventilation or air-supplied respiratory protection to keep exposures below the TLV Ceiling Limit.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Off-white powder
Odor:	Slightly aromatic
Melting Point:	Not Available
Boiling Point:	Not Applicable
Specific Gravity/Density:	Not Available
pH:	8.6

Solubility in H₂O

Cypermethrin: 0.004 mg/l (pH 7)

Vapor Pressure

Cypermethrin: ca 7.5 x 10⁽⁻¹⁰⁾ mmHg @ 68°F (20°C) (by extrapolation)

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: Hydrogen cyanide gas may develop in the headspace of containers at normal storage temperatures.
May decompose at high temperatures forming toxic gases, including hydrogen cyanide.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies (Finished Product)

Ingestion:
Oral (LD50 Rat) : = 1,800 mg/kg body weight
Dermal:
Dermal (LD50 Rabbit) : = 2,000 mg/kg body weight
Inhalation:
Inhalation (Not available at this time.) :
Eye Contact: Moderately Irritating (Rabbit)
Skin Contact: Not Available
Skin Sensitization: A skin sensitizer in animal tests.

Reproductive/Developmental Effects

Cypermethrin: There were no cypermethrin-induced effects in fertility in two separate two-litter three (filial) generation studies in the rat.

Chronic/Subchronic Toxicity Studies

Cypermethrin: NOEL (2-yr) for dogs 5 mg/kg, rats 7.5 mg/kg.
Nervous system effects typical of pyrethroids (motor incoordination, gait abnormalities) in a range of repeated dose studies (dog and rat). Possible nerve fiber degeneration in 14-day study in rats.

Carcinogenicity

Cypermethrin: Two separate 2-year feeding studies in the rat revealed no evidence of carcinogenicity that could be attributable to cypermethrin.

Other Toxicity Information

In humans, contact with exposed skin may result in temporary itching, tingling, burning or numbness, called paresthesia. The effect may result from splash, aerosol, or hot vapor contact, or transfer to the face from contaminated gloves and hands. The symptoms normally disappear within 24 hours. Face and genital areas are especially susceptible to this effect. Paresthesia involving the face is also known as "subjective facial sensation" or SFS.

Toxicity of Other Components

Amorphous Silica

Amorphous Silica is listed as an IARC (Group 3) carcinogen not classifiable as a human carcinogen (No Data Available) with limited animal evidence. Prolonged exposure to amorphous silica may cause damage to respiratory system and irritation to skin and eyes.

Calcium Silicate

May cause skin or eye irritation upon prolonged or repeated contact.

Target Organs

Active Ingredients

Cypermethrin: CNS, eye, liver, skin

Inert Ingredients

Amorphous Silica: Respiratory tract, skin, eye

Calcium Silicate: Skin, eye

12. ECOLOGICAL INFORMATION

Summary of Effects

Cypermethrin:

Very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Eco-Acute Toxicity

Cypermethrin:

Invertebrate (Water Flea) 48-hour EC50 0.48 ppb

Fish (Rainbow Trout) 96-hour LC50 0.92 ppb

Fish (Bluegill Sunfish) 96-hour LC50 1.78 ppb

Bird (Bobwhite Quail) 8-day dietary LC50 > 3951 ppm

Bird (Mallard Duck) 8-day dietary LC50 > 2634 ppm

Bee 48-hour LD50 0.023 ug/bee

Eco-Chronic Toxicity

Cypermethrin:

Invertebrate (Water Flea) 21-day LOEC 0.0020 ppb

Bird (Mallard Duck) Reproduction 12-week LOEL > 50 ppm

Fish (Fathead Minnow) 30-day LOEC 0.33 ppb

Environmental Fate

Cypermethrin:

The information presented here is for the active ingredient, cypermethrin.

Not persistent in soil or water. Immobile 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

Not regulated by US DOT.

Note: Packages prepared for export are classified in compliance with the IMDG code (water).

Air Transport - NAFTA

Not regulated by US DOT.

B/L Freight Classification

Insecticides, NOIBN, O/T Poison

Comments

Water Transport - International

Proper Shipping Name: Environmentally Hazardous Substance, Solid, N.O.S. (Cypermethrin), Marine Pollutant

Hazard Class or Division: Class 9

Identification Number: UN 3077

Packing Group: PG III

Air Transport - International

Proper Shipping Name: Environmentally Hazardous Substance, Solid, N.O.S. (Cypermethrin)

Hazard Class or Division: Class 9

Identification Number: UN 3077

Packing Group: PG III

Note: Max. inner packages 10 kg

Max. single packages 400 kg

15. REGULATORY INFORMATION

EPCRA SARA Title III Classification

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

Health: 2
Flammability: 3
Instability: 0

HMIS Hazard Ratings

Health: 2
Flammability: 3
Reactivity: 0

0	Minimal
1	Slight
2	Moderate
3	Serious
4	Extreme

For non-emergency questions about this product call:

1-800-334-9481

Original Issued Date: 8/6/1998

Revision Date: 2/28/2007

Replaces: 4/11/2005

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