

Material Safety Data Sheet

Cynoff® WP Insecticide

MSDS #: 1070-A
Revision Date: 2013-08-02
Version 0.03



This MSDS has been prepared to meet U.S. OSHA Hazard Communication Standard 29 CFR 1910.1200
And Canadian Workplace Hazardous Materials Information System (WHMIS) requirements.

1. PRODUCT AND COMPANY IDENTIFICATION

Product name	Cynoff® WP Insecticide
Formula code	1070-A
Active Ingredient(s)	Cypermethrin
Synonyms	FMC 30980; (RS)- α -cyano-3-phenoxybenzyl (1RS,3RS;1RS,3SR)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate; cyano(3-phenoxyphenyl)methyl 3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropanecarboxylate
Chemical Family	Pyrethroid Pesticide
Recommended use:	Insecticide
<u>Manufacturer</u>	<u>Emergency telephone number</u>
FMC Corporation Agricultural Products Group 1735 Market Street Philadelphia, PA 19103 General Information: Phone: (215) 299-6000 E-Mail: msdsinfo@fmc.com	(800) 331-3148 (FMC - U.S.A. & Canada) (716) 735-3765 (FMC - Reverse charges) 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

<u>Appearance</u>	Light-tan powder
<u>Physical state</u>	solid
<u>Odor</u>	Low
<u>Physical or Chemical Hazards</u>	
<u>Potential health effects</u>	
Acute effects	
Eyes	May cause slight irritation.
Skin	May cause sensitization by skin contact. Substance may cause slight skin irritation.
Inhalation	May cause irritation of respiratory tract. May cause additional effects as listed under "Ingestion".

Ingestion

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause central nervous system depression.

Chronic effects

Effects are expected to be similar to those that are seen with acute toxicity.

Environmental hazard

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous ingredients

Chemical Name	CAS-No	Weight %
Cypermethrin	52315-07-8	40
Proprietary Material	Proprietary	20-30
Silica gel	63231-67-4	20-30
Sodium Lauryl Sulfate	151-21-3	<5

4. FIRST AID MEASURES

Eye contact

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.

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 treatment advice.

Inhalation

Move person to fresh air. If person is not breathing, call 911 (within the U.S. and Canada) or an ambulance, then give artificial respiration, preferably by 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.

Notes to physician

This product is a pyrethroid. If large amounts have been ingested, the stomach and intestines should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided.

5. FIRE-FIGHTING MEASURES

Sensitivity to Mechanical Impact

Not applicable

Sensitivity to Static Discharge

Not applicable

Suitable extinguishing media

Carbon dioxide (CO₂), Dry chemical, Alcohol-resistant foam, Water spray.

Protective equipment and precautions for firefighters

Wear self-contained breathing apparatus and protective suit.

NFPA

Health Hazard	2
Flammability	1
Stability	0
Special Hazards	-

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	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.
Environmental precautions	Keep people and animals away from and upwind of spill/leak. Keep material out of lakes, streams, ponds, and sewer drains.
Methods for containment	Use a wet sweeping compound or water to prevent dust formation.
Methods for cleaning up	Sweep up and shovel into suitable containers for disposal. 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.
Other	For further clean-up instructions call FMC Emergency Hotline number listed in Section 1 "Product and Company Identification" above.

7. HANDLING AND STORAGE

Handling	Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal.
Storage	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. Store in original container only.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Exposure guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH	Mexico
Proprietary Material	TWA: 10 mg/m ³	TWA: 15 mg/m ³ TWA: 5 mg/m ³	TWA: 10 mg/m ³ TWA: 5 mg/m ³	
Chemical Name	British Columbia	Quebec	Ontario TWAEV	Alberta
Proprietary Material	TWA: 10 mg/m ³ TWA: 3 mg/m ³	TWA: 10 mg/m ³	TWA: 10 mg/m ³	TWA: 10 mg/m ³
Silica gel 63231-67-4		TWA: 6 mg/m ³		

Occupational exposure 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.
Personal Protective Equipment	
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.
Respiratory protection	For dust, splash, mist or spray exposures wear a filtering mask.
Eye/face protection	For dust, splash, mist or spray exposure, wear chemical protective goggles or a face-shield
Skin and body protection	Wear long-sleeved shirt, long pants, socks, shoes, and gloves.
Hand protection	Protective gloves

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Light-tan powder
Color	Light tan
Physical state	solid
Odor	Low
pH	8.7 @ 20 °C (5 % solution) (as aqueous solution)
Melting Point/Range	No information available.
Freezing point	No information available.
Boiling Point/Range	No information available.
Flash Point	Not applicable
Evaporation rate	No information available.
Vapor pressure	No information available.
Vapor density	No information available.
Density	0.28 - 0.38 g/mL
Bulk density	18-24 lb/cu ft
Water solubility	Dispersible in water
Percent volatile	No information available.
Partition coefficient:	No information available.
Viscosity	No information available.
Autoignition Temperature	No information available.

10. STABILITY AND REACTIVITY

Stability	Stable.
Conditions to avoid	Heat, flames and sparks
Hazardous decomposition products	Thermal decomposition can lead to release of irritating and toxic gases and vapors: Carbon oxides, Hydrogen cyanide, Chlorine, Hydrogen chloride,
Hazardous polymerization	Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute effects

Acute Toxicity

Large doses of cypermethrin ingested by laboratory animals produced signs of toxicity including loss of motor control, tremors, decreased activity, urinary incontinence, incoordination, increased sensitivity to sound and convulsions.

Eye contact	Slightly or non-irritating (rabbit).
Skin contact	Slightly or non-irritating (rabbit).
LD50 Dermal	> 2000 mg/kg (rabbit)
LD50 Oral	2342 mg/kg (Rat)
LC50 Inhalation:	Cypermethrin: 2.5 mg/L 4 hr (Rat)
Sensitization	Sensitizer

Chronic effects

Chronic Toxicity	Effects are expected to be similar to those that are seen with acute toxicity.
Carcinogenicity	Cypermethrin caused an increase in benign lung tumors in mice, but not in rats, and was negative for genotoxicity. EPA has classified zeta-cypermethrin as a possible human carcinogen based on this information, but does not regulate based on its low cancer risk. Not recognized as carcinogenic by Research Agencies (IARC, NTP, OSHA, ACGIH).
Mutagenicity	Cypermethrin: Not genotoxic.
Reproductive toxicity	Cypermethrin: No toxicity to reproduction.
Neurological Effects	Cypermethrin did not cause neurotoxicity in animal experiments.
Developmental Toxicity	Cypermethrin: Not teratogenic in animal studies.
Target Organ Effects	Cypermethrin: Liver enlargement and elevated cholesterol levels are often noted in laboratory animals that have ingested large doses of during their life span.

Chemical Name	ACGIH	IARC	NTP	OSHA	NIOSH - Target Organs
Proprietary Material					eyes, respiratory system, skin

12. ECOLOGICAL INFORMATION

Marine pollutant Ecotoxicity Cypermethrin

Ecotoxicity effects Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Cypermethrin (52315-07-8)				
Active Ingredient(s)	Duration	Species	Value	Units:
Cypermethrin	LC50	Aquatic organisms	0.005 - 0.13	µg/L
	LC50	Fish	0.09 - 3.42	µg/L
	LD50 Oral	Bobwhite quail	> 2000	mg/kg
	LD50	Bee	0.023-0.56	µg/bee

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates

Sodium Lauryl Sulfate	53 mg/L EC50 72 h (Desmodesmus subspicatus) 30 - 100 mg/L EC50 96 h (Desmodesmus subspicatus) 117 mg/L EC50 96 h (Pseudokirchneriella subcapitata) 3.59 - 15.6 mg/L EC50 96 h (Pseudokirchneriella subcapitata)	LC50 8 - 12.5 mg/L Pimephales promelas 96 h LC50 15 - 18.9 mg/L Pimephales promelas 96 h LC50 22.1 - 22.8 mg/L Pimephales promelas 96 h LC50 4.3 - 8.5 mg/L Oncorhynchus mykiss 96 h LC50= 4.62 mg/L Oncorhynchus mykiss 96 h LC50= 4.2 mg/L Oncorhynchus mykiss 96 h LC50= 7.97 mg/L Brachydanio rerio 96 h LC50 9.9 - 20.1 mg/L Brachydanio rerio 96 h LC50 4.06 - 5.75 mg/L Lepomis macrochirus 96 h LC50 4.2 - 4.8 mg/L Lepomis macrochirus 96 h LC50= 4.5 mg/L Lepomis macrochirus 96 h LC50 5.8 - 7.5 mg/L Pimephales promelas 96 h LC50 10.2 - 22.5 mg/L Pimephales promelas 96 h LC50 6.2 - 9.6 mg/L Pimephales promelas 96 h LC50 13.5 - 18.3 mg/L Poecilia reticulata 96 h LC50 10.8 - 16.6 mg/L Poecilia reticulata 96 h LC50= 1.31 mg/L Cyprinus carpio 96 h	EC50 = 1.8 mg/L 48 h
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Environmental Fate

Cypermethrin (52315-07-8)		
Active Ingredient(s)	Type of Test	Result
Cypermethrin	Bioconcentration factor (BCF)	443
	Half-life in soil	2 - 4 weeks
	log Pow	5
	Mobility in soil	Not expected to reach groundwater
	Stability in water	Hydrolysis unstable at pH 9, half life 20-29 days at pH 5 and 7.

Chemical Name	log Pow
Sodium Lauryl Sulfate	1.6

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**

Not regulated for transportation if shipped in Non Bulk packaging. The classification below pertains to the shipment in Bulk packaging.

Packaging Type	Bulk,
UN/ID No	UN3077
Hazard Class	9
Packing group	III

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Marine pollutant Description Cypermethrin
UN3077, Environmentally hazardous substance, solid, n.o.s. (Cypermethrin), 9, PG III, Marine Pollutant

Additional information When shipped in BULK this product is classified as a Marine Pollutant.

TDG

Classification below is only applicable when shipped by vessel and is not applicable when shipped by road or rail only.

UN/ID No UN3077
Hazard Class 9
Packing group III
Marine pollutant Description Cypermethrin.
UN3077, Environmentally hazardous substance, solid, n.o.s. (Cypermethrin), 9, PG III, Marine Pollutant

ICAO/IATA

UN/ID No UN3077
Hazard Class 9
Packing group III
Marine pollutant Description Cypermethrin
UN3077, Environmentally hazardous substance, solid, n.o.s. (Cypermethrin), 9, PG III, Marine Pollutant

IMDG/IMO

UN/ID No UN3077
Hazard Class 9
Packing group III
EmS No. F-A, S-F
Marine pollutant Description Cypermethrin
UN3077, Environmentally hazardous substance, solid, n.o.s. (Cypermethrin), 9, PG 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

Acute Health Hazard	yes
Chronic Health Hazard	yes
Fire Hazard	no
Sudden Release of Pressure Hazard	no
Reactive Hazard	no

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.

International Regulations**Mexico - Grade**

Slight risk, Grade 1

Canada

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

D2B Toxic materials

**16. OTHER INFORMATION**

Revision Date: 2013-08-02
Reason for revision: (M)SDS sections updated.

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End of Material Safety Data Sheet