

CYNOFF[®] WSB INSECTICIDE

This document has been prepared to meet the requirements of the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200; the EU Directive, 91/155/EEC and other regulatory requirements. The information contained herein is for the concentrate as packaged, unless otherwise noted.

1. Company and Product Identification

FMC CORPORATION

Agricultural Products Group
1735 Market Street
Philadelphia, PA 19103 U.S.A.

Code Number: 1193

Active Ingredient: Cypermethrin

Chemical Family: Pyrethroid Pesticide

Formula: C₂₂H₁₉Cl₂NO₃ (cypermethrin)

Synonyms: FMC 30980; α(±)-cyano-(3-phenoxyphenyl)methyl(±) *cis*, *trans* 3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropane-carboxylate; IUPAC: (RS)-α-cyano-3-phenoxybenzyl (1RS)-*cis-trans*-3-(2,2-dichlorovinyl)-1,1-dimethylcyclopropanecarboxylate

EMERGENCY TELEPHONE NUMBERS:

CHEMTREC

(800)424-9300 (U.S.A. & Canada)

(202)483-7616 (All Other Countries)

FMC CORPORATION

(800)331-3148 (U.S.A. & Canada)

(716)735-3765 (All Other Countries-*reverse charges*)

General Information: (800)321-1362

2. Composition/Information on Ingredients

Ingredient Name	CAS #	EU Number	PEL/TLV	EU Class
Cypermethrin (35.6%)	52315-07-8	None	None	None
Polyvinyl Alcohol (<11.2%)	9002-89-5	None	None	None
Surfactant Blend (<4%)	None	None	None	None
Silica, Quartz (<0.43%)	14808-60-7	None	0.1 mg/m ³ (resp)	None

3. Hazards Identification

Emergency Overview:

- Light tan powder with a faint odor.
- Slightly combustible. May support combustion at elevated temperatures.
- Thermal decomposition and burning may form toxic by-products.
- For large exposures or fire, wear personal protective equipment.
- Highly toxic to fish and aquatic organisms. Keep out of drains and water courses.

Potential Health Effects: Effects from overexposure result from either swallowing or coming into contact with the skin. Symptoms of overexposure include nasal discharge, convulsions and incoordination. Contact with cypermethrin may produce skin sensations such as numbing, burning, or tingling. These skin sensations are reversible and usually subside within 12 hours.

Medical Conditions Aggravated by Exposure: None presently known.

4. First Aid Measures

Eyes: Flush with water for at least 15 minutes. If irritation occurs and persists, obtain medical attention.

Skin: Wash with plenty of soap and water.

Inhalation: Remove to fresh air. If breathing difficulty or discomfort occurs and persists, contact a medical doctor.

Ingestion: Drink 1 or 2 glasses of water and induce vomiting by touching the back of the throat with a finger or by giving syrup of ipecac. Never induce vomiting or give anything by mouth to an unconscious person. Contact a medical doctor.

Note to Medical Doctor: Cynoff WSB is expected to have low oral, dermal and inhalation toxicity. It is expected to be minimally irritating to the eyes and non-irritating to the skin. Do not administer milk, cream

or other substances which contain vegetable or animal fats, as they enhance absorption. Central nervous system stimulation can be controlled with sedation by e.g. barbiturates. Reversible skin sensations (paresthesia) may occur and ordinary skin salves have been found useful in reducing discomfort. Treatment is otherwise controlled removal of exposure followed by symptomatic and supportive care.

5. Fire Fighting Measures

Extinguishing Media: Foam, CO₂ or dry chemical. Soft stream water fog only if necessary. Contain all runoff.

Degree of Fire/Explosion Hazard: Slightly combustible. This material may support combustion at elevated temperatures.

Special Fire Fighting Procedures: Isolate fire area. Evacuate downwind. Wear full protective clothing and self-contained breathing apparatus. Do not breathe smoke, gases or vapors generated.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, hydrogen cyanide, chlorine and hydrogen chloride.

6. Accidental Release Measures

Isolate and post spill area. Wear protective clothing and personal protective equipment as prescribed in Section 8, "Exposure Controls/Personal Protection". Keep unprotected persons and animals out of the area. Keep material out of streams and sewers. Large spills should be covered to prevent dispersal. For dry material, use a wet sweeping compound or water to prevent the formation of dust. If water is used, prevent runoff or dispersion of excess liquid by diking and absorbing with a non-combustible absorbent such as clay, sand or soil. Vacuum, shovel or pump all waste material, including absorbent, into a drum and label contents for disposal.

To clean and neutralize spill area, tools and equipment, wash with a suitable solution of caustic/soda ash and an appropriate alcohol (i.e., methanol, ethanol or isopropanol). Follow this by washing with a strong soap and water solution. Absorb, as above, any excess liquid and add to the drums of waste already collected. Repeat if necessary. Dispose of drummed waste according to the method outlined in Section 13, "Disposal Considerations".

7. Handling and Storage

Store in a cool, dry, well-ventilated place. Do not use or store near heat, open flame or hot surfaces. Store in original containers only. Keep out of reach of children and animals. Do not remove packages from container except for immediate use. Do not store at temperatures below 0°C (32°F). Rough handling may cause breakage, especially at low temperatures. Allow to warm above 10°C (50°F) before use. Do not allow inner bags to become wet during storage. Do not handle inner bag with wet hands or wet gloves. Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal.

8. Exposure Controls/Personal Protection

Personal protective recommendations for mixing or applying this product are prescribed on the product label. Information stated below provides useful, additional guidance for individuals whose use or handling of this product is not guided by the product label.

Ventilation: Use local exhaust at all process locations where dust may be emitted. Ventilate all transport vehicles prior to unloading.

Work Clothing: Depending upon concentrations encountered, wear coveralls or long-sleeved uniform and head covering. For larger exposures as in the case of spills, wear full body cover barrier suit, such as a PVC rain suit. Leather items - such as shoes, belts and watchbands - that become contaminated should be removed and destroyed. Launder all work clothing before reuse (separately from household laundry).

Eye Protection: For dust exposure, wear chemical protective goggles or a face shield.

Respiratory Prot.: For dust exposure wear, as a minimum, a properly fitted half-face or full-face air-purifying respirator which is approved for pesticides (U.S. NIOSH/MSHA, EU CEN or comparable certification organization). Respirator use and selection must be based on airborne concentrations.

Gloves: Wear chemical protective gloves made of materials such as rubber, nitrile or neoprene. Thoroughly wash the outside of gloves with soap and water prior to removal. Inspect regularly for leaks.

Personal Hygiene: Clean water should be available for washing in case of eye or skin contamination. Wash skin prior to eating, drinking or using tobacco. Shower at the end of the workday.

9. Physical/Chemical Properties

Appearance: Light tan powder

Odor: Faint

pH: 8.7 @ 20°C (5% in water)

Bulk Density: 0.28 - 0.38 g/mL (18 - 24 lb/cu ft)

Solubility (H₂O): Disperses

Molecular Weight: 416.3 (cypermethrin)

10. Stability and Reactivity

Stability: Stable

Hazardous Polymerization: Will not occur

Conditions/Materials to Avoid (Incompatibility): Excessive heat and fire.

11. Toxicological Information

Rat Acute Oral: LD50 = 2342 mg/kg

Rabbit Acute Dermal: LD50 > 2000 mg/kg

Rat Acute Inhalation: LC50 = 2.5 mg/L/4hr (cypermethrin)

Acute Effects From Overexposure: Cynoff WSB is expected to have low oral, dermal and inhalation toxicity, and to be minimally irritating to the eyes and non-irritating to the skin. Signs of toxicity in laboratory animals included convulsions, ataxia, abdominogenital staining, and oral and ocular discharges. Experience to date indicates that contact with cypermethrin may produce skin sensations such as numbing, burning or tingling. These skin sensations are reversible and usually subside within 12 hours.

Chronic Effects From Overexposure: No data available for Cynoff WSB. In studies with laboratory animals, cypermethrin did not cause reproductive toxicity, teratogenicity, neurotoxicity or carcinogenicity in male and female rats and male mice. Cypermethrin caused an increased incidence of benign lung tumors in female mice at 1600 ppm in the diet. The EPA concluded, on a weight of evidence approach, that cypermethrin presents a low oncogenic potential to female mice at this dose level (approximately 228 mg/kg/day). Liver enlargement is often noted in laboratory animals that have ingested large doses of cypermethrin during their lifespan. An overall absence of genotoxicity has been demonstrated in tests of mutagenicity, DNA damage and chromosome aberrations. Repeated overexposure to crystalline silica for extended periods has caused acute silicosis. IARC has classified crystalline silica, inhaled in the form of quartz or cristobalite from occupational sources, as carcinogenic to humans (Group 1). NTP has classified respirable crystalline silica (quartz, cristobalite and tridymite) as "reasonably anticipated to be carcinogenic".

Carcinogenicity: IARC: Yes (crystalline silica)

NTP: Anticipated (crystalline silica)

Other (OSHA/ACGIH): No

12. Environmental Information

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

Physical/Environmental Properties:

When applied at agricultural use rates, cypermethrin has a moderate rate of degradation in the soil. At termiticidal use rates, cypermethrin degrades at a slower rate which is governed by soil characteristics (e.g., pH). The rate of cypermethrin hydrolysis is somewhat faster under alkaline conditions than at neutral or acidic pH. Cypermethrin has a high affinity for organic matter and a Log P_{ow} of 5.0, but has demonstrated a low potential for bioconcentration (BCF = 17). Cypermethrin is not mobile in soil.

Environmental Toxicology:

Cypermethrin is considered highly toxic to fish and aquatic arthropods, and has LC50 values which range from 0.004 µg/L to 3.6 µg/L. The aquatic arthropods tended to be some of the more sensitive species. Care should be taken to avoid contamination of the aquatic environment. Cypermethrin is slightly toxic to birds, and oral LD50 values are greater than 10,248 mg/kg.

13. Disposal Considerations

Open dumping or burning of this pesticide or its packaging is prohibited. If spilled material cannot be disposed of by use according to label instructions, an acceptable method of disposal is to incinerate in accordance with local, state and national laws and regulations. However, because acceptable methods of disposal may vary by location, and regulatory requirements may change, the appropriate regulatory agencies should be contacted prior to disposal.

If the outer container contains formulated product in any way, it must be triple-rinsed with clean water. Add rinse to the spray tank and dispose of the outer package as described above.

14. Transportation Information

Material is regulated via the water mode only. For other modes see 'Note' below.

Environmentally hazardous substance, solid, n.o.s. (cypermethrin 35.6%), 9, UN3077, III. ERG Guide 31.

MARPOL Designation: Severe Marine Pollutant (cypermethrin 35.6%)

Reportable Quantity: Not listed

Note: For shipment via air, road, or rail describe only as follows:

Insecticides, NOI, other than Poison. NMFC Item 102120. Cynoff® WSB.

15. Regulatory Information

Australian Hazard Code: 3XE

U.S. CERCLA Reportable Quantity (RQ) (40 CFR Table 302.4): Not listed

U.S. EPA Signal Word: WARNING

U.S. SARA Title III

Section 302 Extremely Hazardous Substances (40 CFR 355): Not listed

Section 302.4 Reportable Quantity (RQ) (40 CFR 355): Not listed

Section 311 Hazard Categories (40 CFR 370): Immediate, Delayed

Section 312 Threshold Planning Quantity (40 CFR 370): The threshold planning quantity (TPQ) for this product, if treated as a mixture, is 10,000 lb. This product contains the following ingredients with a TPQ of less than 10,000 lb.: None.

Section 313 (40 CFR 372): There are no ingredients in this product which are subject to Section 313 reporting requirements.

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