

# SAFETY DATA SHEET

## MARSHAL POWER EW

SDS # : 6789-A  
Revision date: 2015-04-01  
Format: NA  
Version 1



### 1. PRODUCT AND COMPANY IDENTIFICATION

#### Product Identifier

**Product Name** MARSHAL POWER EW

#### Other means of identification

**Product Code(s)** 6789-A

**Synonyms** ZETA-CYPERMETHRIN: (+/-)- $\alpha$ -cyano(3-phenoxyphenyl)methyl (+/-) cis, trans-3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropanecarboxylate (CAS name); (RS)-  $\alpha$ -cyano-3-phenoxybenzyl (1RS)-cis-trans-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate (IUPAC name)

**Active Ingredient(s)** Zeta-cypermethrin

#### 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  
1735 Market Street  
Philadelphia, PA 19103  
(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 sensitization	Category 1B
Specific target organ toxicity (single exposure)	Category 1
Specific target organ toxicity (repeated exposure)	Category 2

#### GHS Label elements, including precautionary statements

## EMERGENCY OVERVIEW

**Danger****Hazard Statements**

H317 - May cause an allergic skin reaction

H370 - Causes damage to organs

H373 - May cause damage to organs through prolonged or repeated exposure

**Precautionary Statements - Prevention**

P272 - Contaminated work clothing should not be allowed out of the workplace

P280 - Wear protective gloves

P260 - Do not breathe dust/fume/gas/mist/vapors/spray

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

P270 - Do not eat, drink or smoke when using this product

**Precautionary Statements - Response**

P321 - Specific treatment (see supplemental first aid instructions on this label)

P308 + P311 - IF exposed or concerned: Call a POISON CENTER or doctor

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

P333 + P313 - If skin irritation or rash occurs: Get medical advice/ attention

P363 - Wash contaminated clothing before reuse

**Precautionary Statements - Storage**

P405 - Store locked up

**Precautionary Statements - Disposal**

P501 - Dispose of contents/ container to an approved waste disposal plant

**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 %
Zeta-cypermethrin	52315-07-8	1.5
Propylene glycol	57-55-6	5-10

Synonyms are provided in Section 1.

**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 further treatment advice.

<b>Inhalation</b>	Move to fresh air. If person is not breathing, contact emergency medical services, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
<b>Ingestion</b>	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.
<b>Most important symptoms and effects, both acute and delayed</b>	Central nervous system effects.
<b>Indication of immediate medical attention and special treatment needed, if necessary</b>	Treat symptomatically. 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

<b>Suitable Extinguishing Media</b>	Foam, Carbon dioxide (CO <sub>2</sub> ), Dry chemical, Soft stream or water fog only if necessary.
<b>Specific Hazards Arising from the Chemical</b>	Thermal decomposition can lead to release of irritating and toxic gases and vapors.
<b><u>Explosion data</u></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>	Wear self-contained breathing apparatus and protective suit.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	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.
<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>	Keep people and animals away from and upwind of spill/leak. Keep material out of lakes, streams, ponds, and sewer drains.
<b>Methods for Containment</b>	Dike to prevent runoff. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.
<b>Methods for cleaning up</b>	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.

## 7. HANDLING AND STORAGE

<b>Handling</b>	Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.
<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.
<b>Incompatible products</b>	Strong acids, Strong bases, Strong oxidizing agents, Powdered aluminum

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

Chemical name	British Columbia	Quebec	Ontario TWA EV	Alberta
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Propylene glycol 57-55-6	-	-	TWA: 10 mg/m <sup>3</sup> (aerosol only)  TWA: 50 ppm (aerosol and vapor)  TWA: 155 mg/m <sup>3</sup> (aerosol and vapor)	-
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**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** For dust, splash, mist or spray exposure, wear chemical protective goggles.

**Skin and Body Protection** Wear long-sleeved shirt, long pants, socks, shoes, chemical-resistant gloves and headgear.

**Hand Protection** Protective gloves

**Respiratory Protection** For dust, splash, mist or spray exposures wear a filtering mask.

**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**

<b>Appearance</b>	White, Liquid
<b>Physical State</b>	Liquid
<b>Color</b>	White
<b>Odor</b>	Slight
<b>Odor threshold</b>	No information available
<b>pH</b>	4.67
<b>Melting point/freezing point</b>	Not applicable
<b>Boiling Point/Range</b>	No information available
<b>Flash point</b>	Not applicable
<b>Evaporation Rate</b>	No information available
<b>Flammability (solid, gas)</b>	No information available
<b>Flammability Limit in Air</b>	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
<b>Vapor pressure</b>	No information available
<b>Vapor density</b>	No information available
<b>Density</b>	No information available
<b>Specific gravity</b>	No information available
<b>Water solubility</b>	Soluble in water
<b>Solubility in other solvents</b>	No information available
<b>Partition coefficient</b>	No information available
<b>Autoignition temperature</b>	No information available
<b>Decomposition temperature</b>	No information available
<b>Viscosity, kinematic</b>	290 cPs
<b>Viscosity, dynamic</b>	No information available
<b>Explosive properties</b>	No information available
<b>Oxidizing properties</b>	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** None known

**Incompatible materials** Strong acids, Strong bases, Strong oxidizing agents, Powdered aluminum.

**Hazardous Decomposition Products** Carbon oxides (COx), Hydrochloric acid, Hydrogen cyanide, Chlorine.

## 11. TOXICOLOGICAL INFORMATION

### Product Information

**Sensitization** May cause sensitization by skin contact.

### Information on toxicological effects

**Symptoms** Large doses of zeta-cypermethrin, ingested by laboratory animals, may produce signs of toxicity including tremors, incoordination, convulsions, staggered gait, and oral discharge.

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

**Chronic toxicity** Zeta-cypermethrin: Long-term exposure caused neurotoxicity (body tremors, decreased motor activity), decreased body weight and increased liver weight.

**Mutagenicity** Zeta-cypermethrin: Not genotoxic in laboratory studies.

**Carcinogenicity** Cypermethrin caused an increase in benign lung tumors in mice, but not in rats. EPA has classified zeta-cypermethrin as a possible human carcinogen based on this information, but does not regulate based on its low cancer risk.

**Neurological effects** Zeta-cypermethrin: Causes neurotoxicity (tremors and decreased motor activity) following acute, subchronic or chronic exposure.

**Reproductive toxicity** Zeta-cypermethrin: No toxicity to reproduction in animal studies.

**Developmental toxicity** Zeta-cypermethrin: Not teratogenic in animal studies.

**STOT - single exposure** Causes damage to organs. See listed target organs below.

**STOT - repeated exposure** May cause damage to organs through prolonged or repeated exposure. See listed target organs below.

**Target organ effects** Zeta-cypermethrin: Central Nervous System, blood.

**Neurological effects** Zeta-cypermethrin: Causes neurotoxicity (tremors and decreased motor activity) following acute, subchronic or chronic exposure.

**Aspiration hazard** No information available.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

Zeta-cypermethrin (52315-07-8)				
Active Ingredient(s)	Duration	Species	Value	Units
Zeta-cypermethrin	48 h EC50	Crustacea	0.14	µg/L
	96 h LC50	Fish	0.69	µg/L
	72 h EC50	Algae	>1	mg/L

	21 d NOEC	Crustacea	0.01	µg/L
	21 d NOEC	Fish	0.015	µg/L

**Persistence and degradability** Zeta-cypermethrin: Non-persistent. Readily hydrolyzed. Not readily biodegradable.

**Bioaccumulation** Zeta-cypermethrin: The substance does not have a potential for bioconcentration.

**Mobility** Zeta-cypermethrin: Immobile; Not expected to reach groundwater.

### 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.

**UN/ID no** UN3082  
**Proper Shipping Name** Environmentally hazardous substance, liquid, n.o.s.  
**Hazard class** 9  
**Packing Group** III  
**Marine Pollutant** Zeta-cypermethrin.  
**Description** UN3082, Environmentally hazardous substance liquid, n.o.s. (Zeta-cypermethrin), 9, PGIII, 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** UN3082  
**Proper Shipping Name** Environmentally hazardous substance, liquid, n.o.s.  
**Hazard class** 9  
**Packing Group** III  
**Marine Pollutant** Zeta-cypermethrin.  
**Description** UN3082 Environmentally hazardous substance, liquid, n.o.s. (zeta-cypermethrin), 9, PG III, Marine pollutant

#### ICAO/IATA

**UN/ID no** UN3082  
**Proper Shipping Name** Environmentally hazardous substance, liquid, n.o.s.  
**Hazard class** 9  
**Packing Group** III  
**Description** UN3082 Environmentally hazardous substance, liquid, n.o.s. (zeta-cypermethrin), 9 PG III

#### IMDG/IMO

**UN/ID no** UN3082  
**Proper Shipping Name** Environmentally hazardous substance, liquid, n.o.s.  
**Hazard class** 9  
**Packing Group** III  
**EmS No.** F-A, S-F  
**Marine Pollutant** Zeta-cypermethrin  
**Description** UN3082 Environmentally hazardous substance, liquid, n.o.s. (zeta-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	No
Chronic health hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

### Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

### 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

### 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:*

#### **WARNING**

*May be fatal if swallowed. Harmful if inhaled or absorbed through the skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.*

*This product is extremely toxic to fish and aquatic invertebrates.*

## 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
Zeta-cypermethrin 52315-07-8		X	
Propylene glycol 57-55-6	X		X

### International Inventories

Component	TSCA (United States)	DSL (Canada)	EINECS/ELI NCS (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
Zeta-cypermethrin 52315-07-8 ( 1.5 )			X		X	X	X	X
Propylene glycol 57-55-6 ( 5-10 )	X	X	X	X	X	X	X	X

WHMIS Hazard Class

D2B - Toxic materials

**16. OTHER INFORMATION**

NFPA	Health Hazards 2	Flammability 1	Instability 0	Special Hazards -
HMIS	Health Hazards 2*	Flammability 1	Physical hazard 0	Personal Protection X

*\*Indicates a chronic health hazard.*

Revision date: 2015-04-01  
Revision note Initial Release

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Prepared By:

**End of Safety Data Sheet**