

**SAFETY DATA SHEET**  
**ZETA 18 EW**

**SDS # :** 1495-2-A  
**Revision date:** 2018-04-03  
**Format:** NA  
**Version** 1



**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product Identifier**

**Product Name** ZETA 18 EW

**Other means of identification**

**Product Code(s)** 1495-2-A

**Synonyms** FMC 56701; A mixture of the stereoisomers (S)- $\alpha$ -cyano-3-phenoxybenzyl (1RS,3RS;1RS,3SR)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate where the ratio of the (S);(1RS,3RS) isomeric pair to the (S); (1RS,3SR) isomeric pair lies in the ratio range 45–55 to 55–45; (S)-cyano(3-phenoxyphenyl)methyl ( $\pm$ )-cis-trans-3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropanecarboxylate

**Active Ingredient(s)** Zeta-cypermethrin (4s)

**Chemical Family** Pyrethroid Pesticide

**Alternate Commercial Name** Mustang 1.5 EW

**Recommended use of the chemical and restrictions on use**

**Recommended Use:** Insecticide

**Restrictions on Use:** Use as recommended by the label.

**Supplier Address**

FMC Corporation  
2929 Walnut Street  
Philadelphia, PA 19104  
(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 / 741-5970 (CHEMTREC - International)  
1 703 / 527 3887 (CHEMTREC - Alternate)

Medical Emergencies:  
1 800 / 331-3148 (ProPharma Group - U.S.A. & Canada)  
1 651 / 632-6793 (ProPharma Group - 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)

Acute toxicity - Oral	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 3
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 2

### GHS Label elements, including precautionary statements

#### EMERGENCY OVERVIEW

#### Danger

#### Hazard Statements

H301 - Toxic if swallowed

H331 - Toxic if inhaled

H335 - May cause respiratory irritation

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



#### Precautionary Statements - Prevention

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

P271 - Use only outdoors or in a well-ventilated area

#### Precautionary Statements - Response

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

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

P311 - Call a POISON CENTER or doctor

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor

P330 - Rinse mouth

#### Precautionary Statements - Storage

P405 - Store locked up

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

#### 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 Family** Pyrethroid Pesticide.

Chemical name	CAS-No	Weight %
Zeta-cypermethrin	52315-07-8	17.1
Propylene glycol	57-55-6	5-10

Synonyms are provided in Section 1.

#### 4. FIRST AID MEASURES

<b>Eye Contact</b>	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.
<b>Skin Contact</b>	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, call 911 or an ambulance, 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 or give anything by mouth to an unconscious person. 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>	This product contains 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. 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>	None known
<b>Hazardous Combustion Products</b>	Carbon oxides (CO <sub>x</sub> ), hydrogen cyanide, Hydrogen chloride, Chlorine.
<b>Explosion data</b>	
<b>Sensitivity to Mechanical Impact</b>	No information available.
<b>Sensitivity to Static Discharge</b>	No information available.
<b>Protective equipment and precautions for firefighters</b>	As in any fire, wear self-contained breathing apparatus and full protective gear. Isolate fire area. Evaluate upwind.

#### 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 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>	None known

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

Chemical name	British Columbia	Quebec	Ontario TWAEV	Alberta
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	-

### Appropriate engineering controls

<b>Engineering measures</b>	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.
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### Individual protection measures, such as personal protective equipment

<b>Eye/Face Protection</b>	For dust, splash, mist or spray exposure, wear chemical protective goggles.
<b>Skin and Body Protection</b>	Wear long-sleeved shirt, long pants, socks, and shoes.
<b>Hand Protection</b>	Use protective gloves made of chemical materials such as nitrile or neoprene. Wash the outside of gloves with soap and water before reuse. Check regularly for leaks.
<b>Respiratory Protection</b>	For dust, splash, mist or spray exposures wear a filtering facepiece respirator (N95, R95, or P95) which is approved for pesticides (U.S. NIOSH/MSHA, EU CEN or comparable certification organization).
<b>Hygiene measures</b>	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.
<b>General information</b>	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

Color	White
Odor	Sharp acrid
Odor threshold	No information available
pH	4.4 - 4.5
Melting point/freezing point	Not applicable
Boiling Point/Range	No information available
Flash point	Not applicable
Evaporation Rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	No information available
Vapor density	No information available
Density	8.66 lb/gal
Specific gravity	1.04
Water solubility	Emulsifies
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity, kinematic	No information available
Viscosity, dynamic	No information available
Explosive properties	No information available
Oxidizing properties	No information available
Molecular weight	No information available
Bulk density	No information available

## 10. STABILITY AND REACTIVITY

Reactivity	None under normal use conditions
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	Heat, flames and sparks.
Incompatible materials	None known.
Hazardous Decomposition Products	Carbon oxides (COx), hydrogen cyanide, Hydrogen chloride, Chlorine.

## 11. TOXICOLOGICAL INFORMATION

### Product Information

LD50 Oral	234 mg/kg (rat)
LD50 Dermal	> 2000 mg/kg (rabbit)
LC50 Inhalation	> 0.89 mg/L (4-hr) (rat)
Serious eye damage/eye irritation	Mildly irritating (rabbit).
Skin corrosion/irritation	Slightly or non-irritating (rabbit).
Sensitization	Sensitizer

### Information on toxicological effects

Symptoms	Signs of toxicity in laboratory animals included tremors, tonic - clonic convulsions, loss of muscle control, rales, bloody oral discharge, hypersensitivity to touch and ataxia.
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### 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

<b>Carcinogenicity</b>	Cypermethrin caused an increase in benign lung tumors in mice, but not in rats. EPA has classified cypermethrin as a possible human carcinogen based on this information, but does not regulate based on its low cancer risk.
<b>Neurological effects</b>	Zeta-cypermethrin: Causes neurotoxicity (tremors and decreased motor activity) following acute, subchronic or chronic exposure.
<b>Reproductive toxicity</b>	Zeta-cypermethrin: No toxicity to reproduction in animal studies.
<b>Developmental toxicity</b>	Zeta-cypermethrin: Not teratogenic in animal studies.
<b>STOT - single exposure</b>	May cause respiratory irritation. See listed target organs below.
<b>STOT - repeated exposure</b>	May cause damage to organs through prolonged or repeated exposure. See listed target organs below.
<b>Target organ effects</b>	Zeta-cypermethrin: Central Nervous System (CNS), blood.
<b>Neurological effects</b>	Zeta-cypermethrin: Causes neurotoxicity (tremors and decreased motor activity) following acute, subchronic or chronic exposure.
<b>Aspiration hazard</b>	No information available.

Chemical name	ACGIH	IARC	NTP	OSHA
Zeta-cypermethrin 52315-07-8		Group 2A		

**Legend:**

IARC (International Agency for Research on Cancer)  
Group 2A - Probably Carcinogenic to Humans

## 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

<b>Persistence and degradability</b>	Zeta-cypermethrin: Non-persistent. Readily hydrolyzed. Not readily biodegradable.
<b>Bioaccumulation</b>	Zeta-cypermethrin: The substance does not have a potential for bioconcentration.
<b>Mobility</b>	Zeta-cypermethrin: Immobile, Not expected to reach groundwater.

## 13. DISPOSAL CONSIDERATIONS

<b>Waste disposal methods</b>	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. Proper personal protective equipment, as described in Sections 7 and 8, must be worn while handling materials for waste disposal.
<b>Contaminated Packaging</b>	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**

<b>UN/ID no</b>	UN3352
<b>Proper Shipping Name</b>	Pyrethroid pesticide, liquid, toxic
<b>Hazard class</b>	6.1
<b>Packing Group</b>	III

**Marine Pollutant  
Description**

Zeta-cypermethrin.  
UN3352, Pyrethroid pesticide, liquid, toxic, 6.1, PG III, Marine Pollutant

**TDG**

The "Marine Pollutant" marking is only applicable when shipped by vessel, and is not applicable when shipped only by road or rail in Canada.

**UN/ID no  
Proper Shipping Name  
Hazard class  
Packing Group  
Marine Pollutant  
Description**

UN3352  
Pyrethroid pesticide, liquid, toxic  
6.1  
III  
Zeta-cypermethrin.  
UN3352, Pyrethroid pesticide, liquid, toxic (Zeta-cypermethrin (4s)), 6.1, PG III, Marine Pollutant

**ICAO/IATA**

**UN/ID no  
Proper Shipping Name  
Hazard class  
Packing Group  
Description**

UN3352  
Pyrethroid pesticide, liquid, toxic  
6.1  
III  
UN3352, Pyrethroid pesticide, liquid, toxic (Zeta-cypermethrin (4s)), 6.1, PG III, Marine Pollutant

**IMDG/IMO**

**UN/ID no  
Proper Shipping Name  
Hazard class  
Packing Group  
EmS No.  
Marine Pollutant  
Description**

UN3352  
Pyrethroid pesticide, liquid, toxic  
6.1  
III  
F-A, S-A  
Zeta-cypermethrin  
UN3352, Pyrethroid pesticide, liquid, toxic (Zeta-cypermethrin (4s)), 6.1, 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

**Clean Water Act**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Acetic Acid 64-19-7	5000 lb			X

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
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Acetic Acid 64-19-7	5000 lb 2270 kg	
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**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**

*This pesticide is extremely toxic to fish, aquatic invertebrates, oysters and shrimp.*

**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**

Chemical name	TSCA (United States)	DSL (Canada)	EINECS/ELINC S (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
Zeta-cypermethrin 52315-07-8			X		X	X	X	X
Propylene glycol 57-55-6	X	X	X	X	X	X	X	X

**Mexico - Grade**

Moderate risk, Grade 2

**WHMIS Statement**

This product has been classified in accordance with the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

**WHMIS Hazard Class**

D1B - Toxic materials  
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.



**NFPA/HMIS Ratings Legend**

Severe = 4; Serious = 3; Moderate = 2; Slight = 1; Minimal = 0

**Revision date:** 2018-04-03  
**Reason for revision:** (M)SDS sections updated

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**End of Safety Data Sheet**