



## SAFETY DATA SHEET

Fury 18.1EC

SDS # : FO003484-A  
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Version 2

### Section 1: PRODUCT AND COMPANY IDENTIFICATION

**Product Name** Fury 18.1EC  
**Product Code(s)** FO003484-A  
**Active Ingredient(s)** Zeta-cypermethrin  
**Chemical Family** Pyrethroid Pesticide  
**Recommended Use:** Insecticide.  
**Restrictions on Use:** Use as recommended by the label.

**Manufacturer/Supplier**

FMC Corporation  
Agricultural Solutions  
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General Information:  
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### Section 2: HAZARDS IDENTIFICATION

**GHS Classification**

|  |            |
|--|------------|
| Aspiration toxicity                                | Category 1 |
| Acute toxicity - Oral                              | Category 4 |
| Carcinogenicity                                    | Category 2 |
| STOT - single exposure                             | Category 3 |
| Specific target organ toxicity (repeated exposure) | Category 2 |
| Acute aquatic toxicity                             | Category 1 |
| Chronic aquatic toxicity                           | Category 1 |

**Label Elements**



**Signal Word**

**Danger**

**Hazard Statements**

H302 - Harmful if swallowed  
 H304 - May be fatal if swallowed and enters airways  
 H351 - Suspected of causing cancer  
 H373 - May cause damage to organs through prolonged or repeated exposure  
 H410 - Very toxic to aquatic life with long lasting effects  
 H335 - May cause respiratory irritation  
 H336 - May cause drowsiness or dizziness

**Precautionary Statements - Prevention**

P202 - Do not handle until all safety precautions have been read and understood  
 P281 - Use personal protective equipment as required  
 P264 - Wash face, hands and any exposed skin thoroughly after handling  
 P270 - Do not eat, drink or smoke when using this product  
 P260 - Do not breathe dust/fume/gas/mist/vapors/spray  
 P271 - Use only outdoors or in a well-ventilated area  
 P273 - Avoid release to the environment

**Precautionary Statements - Response**

P308 + P313 - If exposed or concerned: Get medical advice/attention  
 P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing  
 P302 + P352 - IF ON SKIN: Wash with plenty of water and soap  
 P312 - Call a POISON CENTER or doctor if you feel unwell  
 P363 - Wash contaminated clothing before reuse  
 P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor  
 P331 - Do NOT induce vomiting  
 P330 - Rinse mouth  
 P391 - Collect spillage

**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

**Other Information**

May be fatal if swallowed and enters airways

### Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical name                       | CAS-No     | Weight % |
|-------------------------------------|------------|----------|
| Zeta-cypermethrin                   | 52315-07-8 | 18       |
| Calcium dodécylbenzène sulfonate    | 26264-06-2 | 1 - 5    |
| Naphtha (petroleum), heavy aromatic | 64742-94-5 | 70 - 80  |
| Naphthalene                         | 91-20-3    | 5-10     |
| 1,2,4-Trimethylbenzene              | 95-63-6    | 1-5      |

### Section 4: FIRST AID MEASURES

**Inhalation**

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.

**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.

**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.

**Ingestion**

Call a physician or poison control center immediately. 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.

**Most important symptoms and effects, both acute and delayed**

Central nervous system effects.

**Protection of first-aiders**

Use personal protective equipment. See Section 8 for more detail.

**Indication of immediate medical attention and special treatment needed, if necessary**

Treat symptomatically.

## Section 5: FIRE FIGHTING MEASURES

**Flammable properties**

Moderately combustible. The product may form flammable mixtures with air when heated above the flash point.

**Suitable Extinguishing Media**

Foam, Dry chemical or CO2. Soft stream or water fog only if necessary. Contain all runoff.

**Unsuitable extinguishing media**

No information available

**Specific Hazards Arising from the Chemical**

Keep product and empty container away from heat and sources of ignition.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus and full protective gear.

## Section 6: ACCIDENTAL RELEASE MEASURES

**Personal Precautions**

Isolate and post spill area. Wear suitable protective clothing, gloves and eye/face protection. For personal protection see section 8.

**Other**

For further clean-up instructions, call FMC Emergency Hotline number listed in Section 1 "Product and Company Identification" above.

**Environmental Precautions**

Keep material out of lakes, streams, ponds, and sewer drains. Keep people and animals away from and upwind of spill/leak.

**Methods for Containment**

Dike to confine spill and absorb with non-combustible absorbent such as clay, sand or soil. Vacuum, shovel or pump waste into a drum and label contents for disposal.

**Methods for cleaning up**

To clean or neutralize spill area, tools and equipment, wash with a suitable solution of caustic or soda ash and an appropriate alcohol such as ethanol, methanol 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. Dispose of waste as indicated in Section 13.

## Section 7: HANDLING AND STORAGE

**Handling**

Avoid contact with skin, eyes and clothing. Wash thoroughly after handling.

**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. Keep/store only in original container.

**Materials to avoid**

Strong oxidizing agents, Strong acids, Strong bases.

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure Limits**

| Component   | China                     | Japan | Korea | Australia   | Taiwan      |
|-------------|---------------------------|-------|-------|-------------|-------------|
| Naphthalene | TWA: 50 mg/m <sup>3</sup> | C2B   | S*    | STEL 15 ppm | STEL 15 ppm |

|   |  |   |                             |   |                           |
|---|--|---|-----------------------------|---|---------------------------|
| 91-20-3 ( 5-10 )                          | STEL: 75 mg/m <sup>3</sup><br>S*<br>C1<br>C3 | ISHL/ACL: 10 ppm                          | STEL: 15 ppm<br>TWA: 10 ppm | STEL 79 mg/m <sup>3</sup><br>TWA 10 ppm<br>TWA 52 mg/m <sup>3</sup> | STEL 78 mg/m <sup>3</sup> |
| 1,2,4-Trimethylbenzene<br>95-63-6 ( 1-5 ) |  | OEL: 25 ppm<br>OEL: 120 mg/m <sup>3</sup> |                             |   |                           |

**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****Respiratory Protection**

The product does not automatically present an airborne exposure concern during normal handling. In the event of an accidental discharge of the material which produces a heavy vapour or mist, workers should put on officially approved respiratory protection equipment with a universal filter type including particle filter.

**Hand Protection**

Wear chemical protective gloves made of materials such as nitrile or neoprene.

**Eye/Face Protection**

For dust, splash, mist or spray exposure, wear chemical protective goggles.

**Skin and Body Protection**

Minimize skin contamination by following good industrial hygiene practices.

**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.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

|                                     |                          |
|-------------------------------------|--------------------------|
| <b>Physical State</b>               | Liquid                   |
| <b>Appearance</b>                   | White Liquid             |
| <b>Odor</b>                         | No information available |
| <b>Color</b>                        | White                    |
| <b>Odor threshold</b>               | No information available |
| <b>pH</b>                           | 6.0-8.0                  |
| <b>Melting point/freezing point</b> | No information available |
| <b>Boiling Point/Range</b>          | No information available |
| <b>Flash point</b>                  | > 100 °C                 |
| <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>Specific gravity</b>             | 1.2231 g/ml              |
| <b>Water solubility</b>             | No information available |
| <b>Solubility(ies)</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>         | No information available |
| <b>Viscosity, dynamic</b>           | No information available |
| <b>Relative density</b>             | No information available |
| <b>Bulk density</b>                 | No information available |

## Section 10: STABILITY AND REACTIVITY

**Reactivity**

Not applicable

**Stability**

Stable under recommended storage conditions

|   |  |
|---|--|
| <b>Hazardous reactions</b>              | None under normal processing.                            |
| <b>Hazardous polymerization</b>         | Hazardous polymerization does not occur.                 |
| <b>Conditions to Avoid</b>              | Excessive heat.  |
| <b>Incompatible products</b>            | Strong oxidizing agents, Strong acids, Strong bases.     |
| <b>Hazardous Decomposition Products</b> | Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> ). |

## Section 11: TOXICOLOGICAL INFORMATION

### Acute toxicity

#### Numerical measures of toxicity - Product Information

|                        |  |
|------------------------|--|
| <b>LD50 Oral</b>       | : 794 mg/kg (female rat)/ 369 mg/kg (male rat) |
| <b>LD50 Dermal</b>     | : > 2000 mg/kg (rat)                           |
| <b>LC50 Inhalation</b> | : > 2000 mg/L 4 hr (rat)                       |

|  |                           |
|--|---------------------------|
| <b>Skin corrosion/irritation</b>         | Non-irritating.           |
| <b>Serious eye damage/eye irritation</b> | Non-irritating.           |
| <b>Sensitization</b>                     | No information available. |

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

|                                 |   |
|---------------------------------|---|
| <b>Mutagenicity</b>             | 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>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. May cause drowsiness and dizziness.   |
| <b>STOT - repeated exposure</b> | May cause damage to organs through prolonged or repeated exposure. See listed target organs below.  |
| <b>Chronic toxicity</b>         | Zeta-cypermethrin: Long-term exposure caused neurotoxicity (body tremors, decreased motor activity), decreased body weight and increased liver weight.  |
| <b>Target organ effects</b>     | Zeta-cypermethrin: Central Nervous System, blood.   |
| <b>Neurological effects</b>     | Zeta-cypermethrin: Causes neurotoxicity (tremors and decreased motor activity) following acute, subchronic or chronic exposure.   |
| <b>Aspiration hazard</b>        | This product presents an aspiration pneumonia hazard.   |

| Chemical name | China | IARC     |
|---------------|-------|----------|
| Naphthalene   |       | Group 2B |

## Section 12: ECOLOGICAL INFORMATION

### Ecotoxicity

The environmental impact of this product has not been fully investigated.

Very toxic to aquatic life with long lasting effects.

| 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.                   |
| <b>Other Adverse Effects</b>         | No information available.   |

### Section 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.  |

### Section 14: TRANSPORT INFORMATION

#### IMDG/IMO

|                             |   |
|-----------------------------|---|
| <b>UN/ID no</b>             | UN3082  |
| <b>Proper Shipping Name</b> | Environmentally hazardous substance, liquid, n.o.s. |
| <b>Hazard class</b>         | 9   |
| <b>Packing Group</b>        | III   |
| <b>EmS No.</b>              | F-A, S-F  |
| <b>Marine Pollutant</b>     | Zeta-cypermethrin                                   |

#### ICAO/IATA

|                             |   |
|-----------------------------|---|
| <b>UN/ID no</b>             | UN3082  |
| <b>Proper Shipping Name</b> | Environmentally hazardous substance, liquid, n.o.s. |
| <b>Hazard class</b>         | 9   |
| <b>Packing Group</b>        | III   |
| <b>Marine Pollutant</b>     | Zeta-cypermethrin                                   |

### Section 15: REGULATORY INFORMATION

#### International Inventories

A food, food additive, drug, cosmetic, or device, when manufactured, processed or distributed in commerce for use as a food, food additive, drug, cosmetic, or device may not be subject to local notification requirements. Check local regulations for more information.

| Chemical name  | TSCA (United States) | DSL (Canada) | EINECS/ELINCS (Europe) | ENCS (Japan) | China (IECSC) | KECL (Korea) | PICCS (Philippines) | AICS (Australia) |
|--|----------------------|--------------|------------------------|--------------|---------------|--------------|---------------------|------------------|
| Zeta-cypermethrin<br>52315-07-8                      |                      |              | X                      |              | X             | X            | X                   | X                |
| Calcium<br>dodécylbenzène<br>sulfonate<br>26264-06-2 | X                    | X            | X                      | X            | X             | X            | X                   | X                |
| Naphtha (petroleum),<br>heavy aromatic               | X                    | X            | X                      |              | X             | X            | X                   | X                |

|                                   |   |   |   |   |   |   |   |   |
|-----------------------------------|---|---|---|---|---|---|---|---|
| 64742-94-5                        |   |   |   |   |   |   |   |   |
| Naphthalene<br>91-20-3            | X | X | X | X | X | X | X | X |
| 1,2,4-Trimethylbenzene<br>95-63-6 | X | X | X | X | X | X | X | X |

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

## Section 16: OTHER INFORMATION

**Prepared By:**

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**Revision note**

(M)SDS sections updated.

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**End of Safety Data Sheet**