

SAFETY DATA SHEET

F5688 MUP

SDS # : 50002764
Revision date: 2023-01-27
Format: NA
Version 1.0



1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name F5688 MUP

Other means of identification

Product Code(s) 50002764

Active Ingredient(s) Chemical Bifenthrin, Acetamiprid

Family Pyrethroid Pesticide, Neonicotinoid

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)
SDS-Info@fmc.com (E-Mail General Information)

Emergency telephone number

Medical Emergencies :
1 800 / 331-3148 (U.S.A. & Canada)
1 651 / 632-6793 (All Other Countries - Collect)

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)

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 4 |
| Acute toxicity - Inhalation (Dusts/Mists) | Category 4 |
| Specific target organ toxicity (single exposure) | Category 1 |
| Specific target organ toxicity (repeated exposure) | Category 1 |

GHS Label elements, including precautionary statements**EMERGENCY OVERVIEW****Danger****Hazard Statements**

H302 - Harmful if swallowed

H332 - Harmful if inhaled

H370 - Causes damage to organs

H372 - Causes 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

P312 - Call a POISON CENTER or doctor if you feel unwell

P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell

P330 - Rinse mouth

Precautionary Statements - Storage

P405 - Store locked up

Precautionary Statements - Disposal

P501 - Dispose of contents/container according to label directions

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, Neonicotinoid.

| Chemical name | CAS-No | Weight % |
|---------------|-------------|----------|
| Bifenthrin | 82657-04-3 | 6.0 |
| Acetamiprid | 135410-20-7 | 5.0 |

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. |
| Inhalation | 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. |
| 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. |
| Most important symptoms and effects, both acute and delayed | Central nervous system effects. |
| Indication of immediate medical attention and special treatment needed, if necessary | 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

| | |
|--|---|
| Suitable Extinguishing Media | Use CO ₂ , dry chemical, or foam. |
| Specific Hazards Arising from the Chemical | None known |
| Hazardous Combustion Products | Carbon oxides (CO _x), Hydrogen chloride, Hydrogen fluoride, Chlorine, fluorine. |
| Explosion data | |
| Sensitivity to Mechanical Impact | Not sensitive. |
| Sensitivity to Static Discharge | Not sensitive. |
| Protective equipment and precautions for firefighters | As in any fire, wear self-contained breathing apparatus and full protective gear. |

6. ACCIDENTAL RELEASE MEASURES

| | |
|----------------------------------|---|
| Personal Precautions | Isolate and post spill area. Remove all sources of ignition. Ventilate the 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 people and animals away from and upwind of spill/leak. Keep material out of lakes, streams, ponds, and sewer drains. |
| Methods for Containment | Dike to prevent runoff. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. |
| Methods for cleaning up | 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

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| 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. Keep/store only in original container. |
| Packaging material | Must only be kept in original packaging. |
| Incompatible products | Strong oxidizing agents. Strong acids. Strong bases. |

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

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 | If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles. |
| Skin and Body Protection | Wear long-sleeved shirt, long pants, socks, and shoes. |
| Hand Protection | Protective gloves |
| Respiratory Protection | If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations. |
| 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

| | |
|-------------------------------------|--------------------------|
| Appearance | Liquid |
| Physical State | Liquid |
| Color | No information available |
| Odor | No information available |
| Odor threshold | No information available |
| pH | 5.51 |
| Melting point/freezing point | Not applicable |
| Boiling Point/Range | No information available |
| Flash point | 110 °C / 230 °F |
| 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 |
| Relative density | 8.89 lb/gal @ 23°C |
| Specific gravity | No information available |
| Water solubility | No information available |
| 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 | Strong oxidizing agents. Strong acids. Strong bases. |
| Hazardous Decomposition Products | Carbon oxides (COx), Hydrogen chloride, Hydrogen fluoride. Chlorine. fluorine. |

11. TOXICOLOGICAL INFORMATION

Product Information

| | |
|------------------------|---|
| LD50 Oral | 1035 mg/kg (rat) |
| LD50 Dermal | > 5000 mg/kg (rat) |
| LC50 Inhalation (dust) | > 2.2 mg/L 4 hr (rat) - Maximum attainable concentration (zero mortality) |

| | |
|-----------------------------------|-----------------------------|
| Serious eye damage/eye irritation | Mildly irritating (rabbit). |
| Skin corrosion/irritation | Non-irritating. |
| Sensitization | Non-sensitizing. |

| Chemical name | LD50 Oral | LD50 Dermal | LC50 Inhalation (vapor) |
|----------------------------|------------------|----------------------|------------------------------|
| Bifenthrin (82657-04-3) | 55 mg/kg (rat) | > 2000 mg/kg (rat) | 0.8 mg/L (female, rat) 4 h |

Information on toxicological effects

| | |
|----------|--|
| Symptoms | Large doses of bifenthrin ingested by laboratory animals produced signs of toxicity including convulsions, tremors and bloody nasal discharge. |
|----------|--|

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

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|-----------------------|--|
| Chronic toxicity | Bifenthrin: Long-term exposure caused neurotoxicity (tremors and impaired gait) in the early exposure in animal studies, but tremors disappeared with continued exposure. Acetamiprid: Prolonged exposure in animal studies caused nonspecific toxicity observed as decreases in body weight and food consumption. |
| Mutagenicity | Bifenthrin, Acetamiprid: Not genotoxic in laboratory studies. |
| Carcinogenicity | Bifenthrin: No evidence of carcinogenicity in rats and no relevant carcinogenic effects in mice. Acetamiprid: No evidence of carcinogenicity from animal studies. |
| Neurological effects | Bifenthrin: Causes clinical signs of neurotoxicity (tremors, impaired gait, excessive salivation) following acute or subchronic exposure. Tremors disappeared with continued exposure. Acetamiprid: Caused clinical signs of neurotoxicity (decreased locomotor activity, tremors) in animal studies. |
| Reproductive toxicity | Bifenthrin: No toxicity to reproduction in animal studies. Acetamiprid: Reductions in pup weight, litter size, viability and weaning indices; delay in sexual maturity endpoints. |

| | |
|---------------------------------|---|
| Developmental toxicity | Bifenthrin, Acetamiprid: Not teratogenic in animal studies. |
| STOT - single exposure | Causes damage to organs. See listed target organs below. |
| STOT - repeated exposure | Causes damage to organs through prolonged or repeated exposure. See listed target organs below. |
| Target organ effects | Bifenthrin: Central Nervous System. Acetamiprid: No specific target organ toxicity; the liver effects were considered an adaptive response to chemicals rather than frank toxicity. |
| Neurological effects | Bifenthrin: Causes clinical signs of neurotoxicity (tremors, impaired gait, excessive salivation) following acute or subchronic exposure. Tremors disappeared with continued exposure. Acetamiprid: Caused clinical signs of neurotoxicity (decreased locomotor activity, tremors) in animal studies. |
| Aspiration hazard | No information available. |

12. ECOLOGICAL INFORMATION

Ecotoxicity

| Bifenthrin (82657-04-3) | | | | |
|--------------------------------|-------------|---------------------|---------|------------|
| Active Ingredient(s) | Duration | Species | Value | Units |
| | 14-day LC50 | Eisenia fetida | > 8 | mg/kg soil |
| | LD50 | Bobwhite quail | 1800 | mg/kg |
| | 96 h LC50 | Salmo gairdneri | 0.1 | µg/L |
| | 48 h EC50 | Daphnia magna | 0.11 | µg/L |
| | 21 d NOEC | Daphnia magna | 0.00095 | µg/L |
| | 21 d NOEC | Pimephales promelas | 1.86 | µg/L |
| | 30 d NOEC | Salmo gairdneri | 0.012 | µg/L |

| Acetamiprid (135410-20-7) | | | | |
|----------------------------------|-----------|-----------|-------|-------|
| Active Ingredient(s) | Duration | Species | Value | Units |
| Acetamiprid | 72 h EC50 | Algae | >98.3 | mg/L |
| | 96 h LC50 | Fish | >100 | mg/L |
| | 48 h LC50 | Crustacea | 49.8 | mg/L |
| | 21 d NOEC | Fish | 19.2 | mg/L |
| | 21 d NOEC | Crustacea | 5 | mg/L |

| Chemical name | Toxicity to algae | Toxicity to fish | Toxicity to daphnia and other aquatic invertebrates |
|--------------------------|-------------------|------------------|---|
| Bifenthrin 82657-04-3 | 0,822 | 0,1&0,012 | 0,11&0,0013 |

| | |
|--------------------------------------|--|
| Persistence and degradability | Bifenthrin: Moderately persistent. Does not readily hydrolyze. Not readily biodegradable. Acetamiprid: Non-persistent. Does not readily hydrolyze. Not readily biodegradable. |
| Bioaccumulation | Bifenthrin: The substance has a potential for bioconcentration. Acetamiprid: The substance does not have a potential for bioconcentration. |
| Mobility | Bifenthrin: Immobile. Not expected to reach groundwater. Acetamiprid: Moderately mobile. Has some potential 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. Proper personal protective equipment, as described in Sections 7 and 8, must be worn while handling materials for waste disposal.

Contaminated containers and packages

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

This material is not a hazardous material as defined by U.S. Department of Transportation at 49 CFR Parts 100 through 185.

TDG

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

Proper Shipping Name
Hazard class
Packing Group
Marine Pollutant
Description

Environmentally hazardous substance, liquid, n.o.s.(bifenthrin)
9
III
Bifenthrin.
UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bifenthrin), 9, PGIII, Marine Pollutant

ICAO/IATA

Proper Shipping Name
Hazard class
Packing Group
Description

Environmentally hazardous substance, liquid, n.o.s.(bifenthrin)
9
III
UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bifenthrin), 9, PGIII, Marine Pollutant

IMDG/IMO

Proper Shipping Name
Hazard class
Packing Group
Environmental Hazards
Description

Environmentally hazardous substance, liquid, n.o.s.(bifenthrin)
9
III
Bifenthrin
UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bifenthrin), 9, PGIII, 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 contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

| Chemical name | CAS-No | Weight % | SARA 313 - Threshold Values % |
|-------------------------|------------|----------|-------------------------------|
| Bifenthrin - 82657-04-3 | 82657-04-3 | 6.0 | 1.0 |

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 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:

CAUTION

Harmful if swallowed. Causes moderate eye irritation.

This pesticide is extremely toxic to wildlife, 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 |
|--------------------------|------------|---------------|--------------|
| Bifenthrin 82657-04-3 | X | | |

International Inventories

| Chemical name | TSCA (United States) | DSL (Canada) | EINECS/ELINCS (Europe) | ENCS (Japan) | China (IECSC) | KECL (Korea) | PICCS (Philippines) | AICS (Australia) |
|----------------------------|-------------------------|-----------------|---------------------------|-----------------|------------------|--------------|------------------------|---------------------|
| Bifenthrin 82657-04-3 | | | | X | X | X | | |
| Acetamiprid 135410-20-7 | | | | | X | X | | |

CANADA

Not applicable

16. OTHER INFORMATION

| | | | | |
|------|-------------------|----------------|-------------------|-----------------------|
| NFPA | Health Hazards 2 | Flammability 0 | Instability 0 | Special Hazards - |
| HMIS | Health Hazards 2* | Flammability 0 | 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: 2023-01-27

Reason for revision: New

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End of Safety Data Sheet