

MATERIAL SAFETY DATA SHEET

TRANSPORT® MIKRON INSECTICIDE

MSDS #: 6549-A
Revision date: 2015-03-24
Version 1.02



This MSDS has been prepared to meet U.S. OSHA Hazard Communication Standard 29 CFR 1910.1200
And Canadian Workplace Hazardous Materials Information System (WHMIS) requirements.

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	TRANSPORT® MIKRON INSECTICIDE
Formula code	006549
Active Ingredient(s)	Bifenthrin, Acetamiprid
Synonyms	BIFENTHRIN: (2-methyl[1,1'-biphenyl]-3-yl)methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate (CAS name); 2-methylbiphenyl-3-ylmethyl (Z)-(1RS)-cis-3-(2-chloro-3,3,3-trifluoroprop-1-enyl)-2,2-dimethylcyclopropanecarboxylate (IUPAC name); ACETAMIPRID: (E)-1-(6-chloro-3-pyridylmethyl)-N-nitroimidazolidin-2-ylideneamine;(2E)-1-[(6-chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine
Chemical Family	Pyrethroid Pesticide, Neonicotinoid
Recommended Use:	Insecticide
<u>Manufacturer/Supplier</u> FMC Corporation Agricultural Solutions 1735 Market Street Philadelphia, PA 19103 General Information: Phone: (215) 299-6000 E-Mail: msdsinfo@fmc.com	<u>Emergency telephone number</u> 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

<u>Appearance</u>	Liquid
<u>Physical State</u>	Liquid
<u>Odor</u>	No information available
<u>Potential Health Effects</u> Principal Routes of Exposure	Skin Contact, Eye Contact, Inhalation. Ingestion
Acute Effects	
Eyes	May cause slight irritation.
Skin	Substance may cause slight skin irritation.
Inhalation	Harmful by inhalation. May cause irritation of respiratory tract.

Ingestion Harmful if swallowed. May cause central nervous system depression. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Chronic Effects 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.

Environmental Hazard See Section 12 for additional Ecological Information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous ingredients

Chemical name	CAS-No	Weight %
Bifenthrin	82657-04-3	6
Acetamiprid	135410-20-7	5
Propylene Carbonate S	108-32-7	5-10

4. FIRST AID MEASURES

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.

Inhalation Move person to fresh air. If person is not breathing, call 911 (within the U.S. and Canada) or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

Notes to Physician 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 CO₂, dry chemical, or foam.

Hazardous Combustion Products Carbon oxides (CO_x), Hydrogen chloride, Hydrogen fluoride, Chlorine, Fluorine.

Protective equipment and precautions for firefighters As in any fire, wear self-contained breathing apparatus and full protective gear.

NFPA

Health Hazards	2
Flammability	1
Stability	0
Special Hazards	-

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

7. HANDLING AND STORAGE

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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<u>Exposure Guidelines</u>	This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies
<u>Occupational exposure controls</u>	
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.
<u>Personal protective equipment</u>	
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.
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.
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
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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Liquid
Physical State	Liquid
Odor	No information available
pH	5.5
Freezing Point	Not applicable
Boiling Point/Range	Not applicable
Flash point	110 °C / 230 °F
Vapor pressure	No information available.
Vapor density	1.064 g/mL (8.89 lb/gal)
Density	8.885 lb/gal
Water solubility	No information available
percent volatile	No information available.
Viscosity	No data available

10. STABILITY AND REACTIVITY

Stability	Stable.
Conditions to Avoid	Heat, flames and sparks.
Hazardous Decomposition Products	Carbon oxides (COx), Hydrogen chloride, Hydrogen fluoride, Chlorine, Fluorine.
Hazardous polymerization	Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute Effects

Acute toxicity

Large doses of bifenthrin ingested by laboratory animals produced signs of toxicity including convulsions, tremors and bloody nasal discharge. Bifenthrin does not cause acute delayed neurotoxicity. Experience to date indicates that contact with bifenthrin may occasionally produce skin sensations such as rashes, numbing, burning or tingling. These sensations are reversible and usually subside within 12 hours.

Eye Contact	Slightly or non-irritating (rabbit)
Skin Contact	Slightly or non-irritating (rabbit).
LD50 Dermal	> 5,000 mg/kg (rat)
LD50 Oral	1,035 mg/kg (rat)
LC50 Inhalation	> 2.2 mg/L 4 hr (rat) - Maximum attainable concentration (zero mortality)
Sensitization	Non-sensitizing

Chronic Effects

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.
Carcinogenicity	Bifenthrin: Weak treatment-related response for liver adenocarcinomas and benign bladder tumors (lesion) in male mice. Acetamiprid: No evidence of carcinogenicity from animal studies.
Mutagenicity	Bifenthrin, Acetamiprid: Not genotoxic in laboratory 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.

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.

Developmental toxicity Bifenthrin, Acetamiprid: Not teratogenic in animal studies.

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.

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Bifenthrin (82657-04-3)				
Active Ingredient(s)	Duration	Species	Value	Units
Bifenthrin	96 h LC50	Fish	0.1	µg/L
	72 h EC50	Algae	0.822	mg/L
	48 h EC50	Crustacea	0.11	µg/L
	21 d NOEC	Fish	0.012	µg/L
	21 d NOEC	Crustacea	0.0013	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 Microorganisms	Toxicity to daphnia and other aquatic invertebrates
Propylene Carbonate S	72 h EC50: 500 mg/L (EC50)	96 h LC50: > 1000 mg/L (Cyprinus carpio)		48 h EC50: 500 mg/L (Daphnia magna)

Environmental Fate

Chemical name	Partition coefficient
Propylene Carbonate S	0.48

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.

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 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.

UN/ID no UN3082
Proper Shipping Name Environmentally hazardous substance, liquid, n.o.s.
Hazard class 9
Packing Group III
Marine Pollutant Bifenthrin
Description UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bifenthrin), 9, PGIII, Marine Pollutant

ICAO/IATA

UN/ID no UN3082
Proper Shipping Name Environmentally hazardous substance, liquid, n.o.s.
Hazard class 9
Packing Group III
Marine Pollutant Bifenthrin
Description UN3082, Environmentally hazardous substance, liquid, n.o.s. (Bifenthrin), 9, PGIII, Marine Pollutant

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 Bifenthrin
Description 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	6	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

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

International Regulations

Mexico - Grade

Moderate risk, Grade 2

CANADA

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR

WHMIS Hazard Class

D2A - Very toxic materials



16. OTHER INFORMATION

Revision date: 2015-03-24
Reason for revision: (M)SDS sections updated.

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End of Safety Data Sheet