MATERIAL SAFETY DATA SHEET

TRANSPORT™ GHP INSECTICIDE

MSDS Ref. No.: F18-56-0A
Date Approved: 9/12/2008
Revision No.: 4

This document has been prepared to meet the requirements of the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200; the EC directive, 2001/58/EC and other regulatory requirements. The information contained herein is for the concentrate as packaged, unless otherwise noted.

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME:	TRANSPORT™ GHP INSECTICIDE
PRODUCT CODE:	6348
ACTIVE INGREDIENT(S):	Bifenthrin*; Acetamiprid**
CHEMICAL FAMILY:	Pyrethroid*; Neonicotinoid**
MOLECULAR FORMULA:	$C_{23}H_{22}ClF_3O_2$*; $C_{10}H_{11}ClN_4$**
SYNONYMS:	FMC 54800; (2-methyl[1,1'-biphenyl]-3-yl)methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate; IUPAC: 2-methylbiphenyl-3-ylmethyl (Z)-(1RS)-cis-3-(2-chloro-3,3,3-trifluoroprop-1-enyl)-2,2-dimethylcyclopropanecarboxylate*;
	CAS: (1E)-N-[(6-chloro-3-pyridinyl)methyl]-N¹-cyano-N-methylacetamidine; IUPAC:(E)-N¹-[(6-chloro-3-pyridyl)methyl]-N²-cyano-N¹-methyl**

Information for Bifenthrin*; Information for Acetamiprid**

MANUFACTURER

FMC CORPORATION
Agricultural Products Group
1735 Market Street
Philadelphia, PA 19103
(800) 321-1362 (General Information)
msdsinfo@fmc.com (Email - General Information)

EMERGENCY TELEPHONE NUMBERS

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

For leak, fire, spill, or accident emergencies, call:
(800) 424-9300 (CHEMTREC - U.S.A. & Canada)
(703) 527-3887 (CHEMTREC - Collect - All Other Countries)

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

- White powder with a faint, slightly sweet odor.
- Slightly combustible. May support combustion at elevated temperatures.
- Thermal decomposition and burning may form toxic by-products.
- For large exposures or fire, wear personal protective equipment.
- Slightly toxic to fish and aquatic organisms. Keep out of drains and water courses.

POTENTIAL HEALTH EFFECTS: Effects from overexposure may result from either swallowing or coming into contact with the skin or eyes. Signs of exposure include ataxia, tachypnea, tremors, chromorhinorrhea, lethargy, sagging eyelids, shallow breathing and abdominal bloating. Contact with bifenthrin may occasionally produce skin sensations such as rashes, numbing, burning or tingling. These skin sensations are reversible and usually subside within 12 hours.

MEDICAL CONDITIONS AGGRAVATED: None presently known.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Wt.%	EC No.	EC Class
Bifenthrin	82657-04-3	27.27	None	R25-20-43-50/53; S1/2-23-24-37-38-45-29
Acetamiprid	135410-20-7	22.73	None	Not classified
Silica, Amorphous	112926-00-8	<33	None	Not classified
Surfactant Blend		<7.4	None	Not classified
Silica, quartz	14808-60-7	<0.8	238-878-4	Not classified

4. FIRST AID MEASURES

EYES: Flush with plenty of water. Get medical attention if irritation occurs and persists.

SKIN: Wash with plenty of soap and water. Get medical attention if irritation occurs and persists.

INGESTION: Drink plenty of water. Never give anything by mouth to an unconscious person. If any discomfort persists, obtain medical attention.

INHALATION: Remove to fresh air. If breathing difficulty or discomfort occurs and persists, contact a medical doctor.

NOTES TO MEDICAL DOCTOR: This product has low oral, dermal and inhalation toxicity. It is irritating to the eyes and non-irritating to the skin. Reversible skin sensations (paresthesia) may occur and ordinary skin salves have been found useful in reducing discomfort. Treatment is otherwise controlled removal of exposure followed by symptomatic and supportive care.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Foam, CO_2 or dry chemical. Soft stream water fog only if necessary. Contain all runoff.

FIRE / EXPLOSION HAZARDS: Slightly combustible. This material may support combustion at elevated temperatures.

FIRE FIGHTING PROCEDURES: Isolate fire area. Evacuate downwind. Wear full protective clothing and self-contained breathing apparatus. Do not breathe smoke, gases or vapors generated.

6. ACCIDENTAL RELEASE MEASURES

RELEASE NOTES: Isolate and post spill area. Wear protective clothing and personal protective equipment as prescribed in Section 8, "Exposure Controls/Personal Protection". Keep unprotected persons and animals out of the area.

Keep material out of streams and sewers. Large spills should be covered to prevent dispersal. For dry material, use a wet sweeping compound or water to prevent the formation of dust. If water is used, prevent runoff or dispersion of excess liquid by diking and absorbing with a non-combustible absorbent such as clay, sand or soil. Vacuum, shovel or pump waste into a drum and label contents for disposal.

To clean and neutralize contaminated area, scrub area with a solution of detergent (e.g. commercial product such as SuperSoap™, Tide®, Spic and Span®, or other high pH detergent) and water. Let solution sit for 5 minutes. Use a stiff brush to scrub affected area. Repeat if necessary to remove visible staining. Additional decontamination can be made by applying bleach (Clorox® or equivalent) to affected area.

Absorb wash-liquid as noted above, remove visibly contaminated soil and place into recovery / disposal container (plastic, open-top steel drum or equivalent). Place all clean-up material in a container, seal and dispose of in accordance with the method outlined in Section 13 "Disposal Considerations" below.

For further information on spill clean-up, waste disposal, or return of salvaged product, call the FMC Emergency Hotline number listed in Section 1 "Product and Company Identification" above.

7. HANDLING AND STORAGE

HANDLING AND STORAGE: Store in a cool, dry, well-ventilated place. Do not use or store near heat, open flame or hot surfaces. Store in original containers only. Keep out of reach of children and animals. Do not remove packages from container except for immediate use. Do not store at temperatures below 0°C (32°F). Rough handling may cause breakage, especially at low temperatures. Allow to warm above 10°C (50°F) before use. Do not allow inner bags to become wet during storage. Do not handle inner bag with wet hands or wet gloves. Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS

Chemical Name	ACGIH	OSHA
Silica, Amorphous	10 mg/m^3 (TWA)	20 mg/m^3 (STEL)
Silica, quartz	0.05 mg/m^3 (TWA) (respirable fraction)	0.1 mg/m^3 (PEL) (respirable dust)

ENGINEERING CONTROLS: No open flames. Prevent deposition of dust; use closed system, consider use of dust explosion-proof electrical equipment and lighting. Use local exhaust at all process locations where dust may be emitted. Ventilate all transport vehicles prior to unloading.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: For dust exposure, wear chemical protective goggles or a face shield with safety glasses.

RESPIRATORY: APPLICATORS / END-USERS: None required for proper use and handling. ALL OTHERS: For dust exposures wear, as a minimum, a properly fitted half-face or full-face air-purifying respirator, which is approved for pesticides (U.S. NIOSH/MSHA, EU CEN or comparable certification organization). Respirator use and selection must be based on airborne concentrations.

PROTECTIVE CLOTHING: Depending upon concentrations encountered, wear coveralls or long-sleeved uniform and head covering. For larger exposures as in the case of spills, wear full body cover barrier suit, such as a PVC suit. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this products concentrate. Do not reuse them. Leather items -such as shoes, belts and watchbands - that become contaminated should also be removed and destroyed. Launder all work clothing before reuse (separately from household laundry).

GLOVES: Wear chemical resistant, waterproof gloves. Thoroughly wash the outside of gloves with soap and water prior to removal. Inspect regularly for leaks.

WORK HYGIENIC PRACTICES: 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 at the end of the workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

ODOR:	Faint, slightly sweet
APPEARANCE:	White powder
DENSITY / WEIGHT PER VOLUME:	Loose: 0.1538 g/mL (9.6 lb/cu ft); Tapped: 0.2151 g/mL (13.43 lb/cu ft)
FLASH POINT:	Not applicable
MOLECULAR WEIGHT:	422.9 (bifenthrin) 222.7 (acetamiprid)
pH:	7.0 (± 0.5) (1% dispersion)

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID:	Excessive heat and fire.
STABILITY:	Stable
POLYMERIZATION:	Will not occur
INCOMPATIBLE MATERIALS:	Strong bases, acids and oxidizing agents.
HAZARDOUS DECOMPOSITION PRODUCTS:	Carbon monoxide, carbon dioxide, hydrogen chloride and hydrogen fluoride.

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS: Irritating (rabbit)

SKIN EFFECTS: Non-irritating (rabbit)

DERMAL LD_{50}: > 2,000 mg/kg (rabbit)

ORAL LD_{50}: > 550 mg/kg (rat)

INHALATION LC_{50}: > 0.51 mg/l (4 h) (rat) Maximum attainable concentration - zero mortality

SENSITIZATION: (Skin) Non-sensitizing (guinea pig)

ACUTE EFFECTS FROM OVEREXPOSURE: This product has low oral, dermal and inhalation toxicity. It is irritating to the eyes and non-irritating to the skin. It is non-sensitizing to the skin. No other acute toxicity information is available at this time.

CHRONIC EFFECTS FROM OVEREXPOSURE: No data available for the formulation. In studies with laboratory animals, bifenthrin did not cause reproductive toxicity or teratogenicity. Tremors were associated with repeated exposure of laboratory animals to bifenthrin. In lifetime feeding studies conducted with laboratory animals, a slight increase in the incidence of urinary bladder tumors at the highest dose in male mice was considered to be an equivocal response, not evidence of a clear compound-related effect. The overall absence of genotoxicity has been demonstrated in mutagenicity tests with bifenthrin.

In long term animal feeding studies with Acetamiprid, there was no evidence of carcinogenicity. In reproductive and developmental studies in animals, there was no effect on reproduction. Acetamiprid is not considered a carcinogen, mutagen or reproductive toxicant.

No adverse effects of pulmonary function or lung damage in workers were observed from long-term exposure to dusts of amorphous precipitated silica, silica gel containing no asbestos and <1% crystalline silica.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: No data available for the formulation.
Bifenthrin has moderate stability in the soil under aerobic conditions and is stable at a wide range of pH values. Bifenthrin has a high Log Pow (6.6), a high affinity for organic matter, and is not mobile in soil. Therefore, there is little potential for movement into ground water. There is the potential for bifenthrin to bioconcentrate (BCF <2,000). Acetamiprid degrades rapidly by aerobic soil metabolism. There are no major issues for soil mobility since low use rate and rapid degradation reduce the amount for offsite movement. Environmental residues in drinking water are predicted to be low. Acetamiprid will not bioaccumulate in fish and in sediment, and it poses low risks to the environment relative to most other insecticides.

ECOTOXICOLOGICAL INFORMATION: No data available for the formulation.
Bifenthrin is highly toxic to fish and aquatic arthropods and LC_{50} values range from 0.0038 to 17.8 µg/L. In general, the aquatic arthropods are the most sensitive species. Care should be taken to avoid contamination of the aquatic environment. Bifenthrin had no effect on mollusks at its limit of water solubility. Bifenthrin is only slightly toxic to both waterfowl and upland game birds (LD_{50} values range from 1,800 mg/kg to >2,150 mg/kg).

Acetamiprid use would pose minimal risk to fish and wildlife. Toxicity of Acetamiprid is selective to insects, but some uses may pose a risk to certain non-target aquatic invertebrates. It is only moderately toxic to bees. Acetamiprid use would generally pose low risk to threatened and endangered species, and it would pose minimal risk to non-target plants.

LD_{50} > 180 mg/kg (oral, Bobwhite quail)
LC_{50} (48-hour) > 100 mg/L (Carp)
LC_{50} (24-hour) >200 mg/L (Daphnia magna)
LD_{50} = 7.1 µg (Honey bee contact)
LC_{50} (96-hour) = 119.3 g/m³ (Rainbow Trout)
EC_{50} (72-hour) > 98.3 mg/L (Algae)

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Open dumping or burning of this material or its packaging is prohibited. If spilled material cannot be disposed of by use according to label instructions, an acceptable method of disposal is to incinerate in accordance with local, state and national environmental laws, rules, standards and regulations. However, because acceptable methods of disposal may vary by location and regulatory requirements may change, the appropriate agencies should be contacted prior to disposal.

EMPTY CONTAINER: Non-returnable containers that held this material should be cleaned, prior to disposal, by triple rinsing. Containers which held this material may be cleaned by being triple-rinsed, and recycled, with the rinsate being incinerated. Do not cut or weld metal containers. Vapors that form may create an explosion hazard. If burned, stay out of smoke.

14. TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION (DOT)

PACKAGING TYPE:	Non-Bulk
ADDITIONAL INFORMATION:	This material is not a hazardous material as defined by US Department of Transportation at 49 CFR Parts 100 through 185.

PACKAGING TYPE:	Bulk
PROPER SHIPPING NAME:	Environmentally hazardous substance, solid, n.o.s.
TECHNICAL NAME(S):	Bifenthrin
PRIMARY HAZARD CLASS / DIVISION:	9
UN/NA NUMBER:	UN 3077
PACKING GROUP:	III
MARINE POLLUTANT:	Bifenthrin
LABEL(S):	9
PLACARD(S):	9
MARKING(S):	3077

INTERNATIONAL MARITIME DANGEROUS GOODS (IMDG)

PACKAGING TYPE:	Non-Bulk
PROPER SHIPPING NAME:	Environmentally hazardous substance, solid, n.o.s.
TECHNICAL NAME(S):	Bifenthrin
PRIMARY HAZARD CLASS / DIVISION:	9
UN/NA NUMBER:	UN 3077
PACKING GROUP:	III
MARINE POLLUTANT:	Bifenthrin
LABEL(S):	9
PLACARD(S):	9
MARKING(S):	Environmentally hazardous substance, solid, n.o.s. (bifenthrin), UN 3077 + Marine Pollutant
ADDITIONAL INFORMATION:	EmS Number: F-A, S-F

ADR - EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD

PACKAGING TYPE:	Non-Bulk

PROPER SHIPPING NAME:	Environmentally hazardous substance, solid, n.o.s.
TECHNICAL NAME(S):	Bifenthrin
PRIMARY HAZARD CLASS / DIVISION:	9
CLASSIFICATION CODE:	M7
UN/NA NUMBER:	UN3077
PACKING GROUP:	III
HAZARD IDENTIFICATION NUMBER:	90
MARINE POLLUTANT:	Bifenthrin
LABEL(S):	9
PLACARD(S):	9
MARKING(S):	UN 3077 + Marine Pollutant

INTERNATIONAL CIVIL AVIATION ORGANIZATION (ICAO) / INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA)

PACKAGING TYPE:	Non-Bulk
PROPER SHIPPING NAME:	Environmentally hazardous substance, solid, n.o.s.
TECHNICAL NAME(S):	Bifenthrin
PRIMARY HAZARD CLASS / DIVISION:	9
UN/NA NUMBER:	UN3077
PACKING GROUP:	III
LABEL(S):	9
LIMITED QUANTITY:	Y911 / 30 kg G
LIMITED QUANTITY: PASSENGER / CARGO:	911 / 400 kg
LIMITED QUANTITY: CARGO:	911 / 400 kg
ADDITIONAL INFORMATION:	Depending on requirements of the country of origin or destination, this material may be described as indicated. Shipment within the USA is not regulated. Marks: Environmentally hazardous substance, solid, n.o.s. (bifenthrin), UN 3077 + Marine Pollutant

OTHER INFORMATION:

Inhalation toxicity: > 0.51 mg/L/4 hour - zero mortality

HARMONIZED SYSTEM
Import to the U.S.A.: 3808.91.2500
Export from the U.S.A.: 3808.91.0000

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355, APPENDIX A):
Not listed
SECTION 311 HAZARD CATEGORIES (40 CFR 370):
Immediate, Delayed, Fire
SECTION 312 THRESHOLD PLANNING QUANTITY (40 CFR 370):
The Threshold Planning Quantity (TPQ) for this product, if treated as a mixture, is 10,000 lbs; however, this product contains the following ingredients with a TPQ of less than 10,000 lbs.: None
SECTION 313 REPORTABLE INGREDIENTS (40 CFR 372):
This product contains the following ingredients subject to Section 313 reporting requirements:
Bifenthrin

CERCLA (COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT)

CERCLA DESIGNATION & REPORTABLE QUANTITIES (RQ) (40 CFR 302.4):
Not listed

FEDERAL INSECTICIDE FUNGICIDE RODENTICIDE ACT
U.S. EPA Signal Word: CAUTION

CA PROP 65
Not Applicable

16. OTHER INFORMATION

NFPA

Health	1
Flammability	1
Reactivity	0
Special	None

No special requirements

NFPA = National Fire Protection Association

Degree of Hazard Code:
4 = Extreme
3 = High
2 = Moderate
1 = Slight
0 = Insignificant

REVISION SUMMARY:
This MSDS replaces Revision #2, dated 10/19/2007.
Changes in information are as follows:
Section 1 (Product and Company Identification)
Section 15 (Regulatory Information)
Section 16 (Other Information)

Transport and FMC - Trademarks of FMC Corporation

SuperSoap - Trademark of Weba Technologies, Inc.; Tide - Trademark of Proctor and Gamble; Spic and Span: Trademark of The Spic and Span Company; Clorox - Trademark of The Clorox Company

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