

SAFETY DATA SHEET

Valar Plus

SECTION 1: IDENTIFICATION

Product Name: Valar Plus

EPA Registration No.: 88746-5

Recommended Use: Insecticide; See product label for a complete list of uses and use sites.

Restrictions on Use: See product label for any restrictions on the use of this product.

Chemical Family: Pyrethroid

Chemical Name of Active Bifenthrin: 2-Methyl-3-phenylphenyl)methyl

Ingredient(s): (1S,3S)—[(Z)-2-chloro-3,3,3-trifluoroprop-1-enyl]-2,2-dimethylcyclopropane-1-carboxylate

Manufactured for: Solutions Pest & Lawn
2739 Pasadena Blvd
Pasadena, TX 77502

FOR FIRE, SPILL, AND/OR LEAK EMERGENCIES CONTACT: Poison Control (800) 222-1222

SECTION 2: HAZARD(S) IDENTIFICATION

EMERGENCY OVERVIEW: Tan granule with a slightly musty odor. **OSHA**

HCS CLASSIFICATION (29 CFR 1910.1200)

Carcinogenicity	Category 1A
Specific Target Organ Toxicity – Repeated Exposure	Category 2

Signal Word: DANGER



Hazard Statement(s): May cause cancer

Precautionary Statement(s): May cause damage to organs (lungs) through prolonged or repeated exposure

Prevention: Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear face protection.
Do not breathe dust.

Response: **IF EXPOSED OR CONCERNED:** Get medical advice/attention.

Storage: Store locked up.

Disposal: Dispose of contents/container in accordance with Federal, state and local laws and regulations.

The following percentage of the mixture consists of components with unknown hazards regarding the acute toxicity:

1.0% Acute oral toxicity

1.0% Acute dermal toxicity
100.0% Acute Inhalation toxicity

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Weight %
Bifenthrin	82657-04-3	0.2%
Sand - (contains)	None	94.0 – 100.0%
Crystalline silica	14808-60-7	<1.0%

*Ingredients not listed or listed with a weight % range are considered a trade secret and are withheld under 29 CFR 1910.1200(i).

SECTION 4: FIRST AID MEASURES

IF IN EYES:	Hold eye 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 treatment advice.
IF ON SKIN:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.
IF INHALED:	Move person 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.
IF INGESTED:	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.

Note to Physician: This product is a pyrethroid. If large amounts have been ingested, milk, cream and other digestible fats and oils may increase absorption and so should be avoided.

Most important symptoms/effects, acute and delayed: Acute symptoms may include mild, mechanical irritation to eyes.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Use appropriate extinguishing media for surrounding fire.
Unsuitable Extinguishing Media: Heavy water stream
Hazardous Combustion Products: Thermal decomposition may produce oxides of carbon, nitrogen, calcium and magnesium.

Special Protective Equipment & Precautions:	Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Foam and/or dry chemical are preferred to minimize environmental contamination. If water is used, dike and collect water to prevent run-off. Wear self-contained breathing apparatus and full fire-fighting turn-out gear (Bunker gear).
Unusual Fire & Explosion Hazards:	None known

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions:	See Section 8 for personal protection equipment.
Environmental Precautions:	Keep spilled material and any rinse from contaminating soil or from entering sewage and drainage systems and bodies of water.
Methods for Containment:	Isolate the spill area. Keep unnecessary and unprotected personnel from entering. Avoid inhalation of dust. Avoid actions that cause dust to become airborne.
Methods for Clean-up:	Uncontaminated product may be placed in a container for use according to label directions. Do not put spilled material back in the original container. Avoid actions that cause dust to become airborne during dry clean-up such as sweeping or using compressed air. Use HEPA vacuum or thoroughly wet with water to clean-up dust. Pick up wash liquid with additional absorbent and place in a disposable container.
Other Information:	None known

SECTION 7: HANDLING AND STORAGE

Handling:	RECOMMENDATIONS ARE INTENDED FOR MANUFACTURING, PACKAGING AND COMMERCIAL BLENDING WORKERS. PESTICIDE APPLICATORS AND WORKERS must refer to the product label and Directions for Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170. Handle and open container in a manner as to prevent spillage. Do not eat, drink or smoke while handling this product. Immediately wash off accidental splashes of the concentrate or spray mixture from skin, clothing and out of eyes.
Storage:	See pesticide label for full information on product storage. Do not contaminate water, food or feed by storage of this product. Store away from sources of heat, out of direct sunlight and away from incompatible materials. Pesticides should be stored in secured areas away from children and animals.
Storage Temperature (Min/Max):	Not determined
Product Incompatibilities:	None known

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Users of a pesticide product must refer to the product label for personal protective equipment requirements. Exposure Guidelines:

COMPONENT	OSHA PEL	ACGIH TLV	NIOSH REL
Crystalline Silica (quartz)	10 mg/m ³ (TWA) %SiO ₂ + 2 (respirable dust) 30 mg/m ³ (TWA) %SiO ₂ + 2 (total dust)	0.025 mg/m ³ TWA (respirable dust)	0.05 mg/m ³ TWA (respirable dust)

Engineering Controls: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs or other specified exposure limits. Local exhaust ventilation is preferred.

Respiratory Protection: In areas of poor ventilation or where exposure limits are exceeded, use a NIOSH approved respirator with cartridges/canisters approved for respirable crystalline silica.

Eye Protection: Chemical goggles or safety glasses and full-face shield.

Protective Gloves: Chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile, neoprene rubber, polyvinyl chloride (PVC) or Viton.

Other Protective Clothing: Long-sleeved shirt, long pants and shoes plus socks.

General Safety Measures: Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing immediately after handling this product. Wash outside of gloves before removing. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Tan granules (solid)	Upper/Lower Flammability Limits:	Not determined
Odor:	Slight musty odor	Vapor Pressure:	Not applicable
Odor Threshold:	Not determined	Vapor Density:	Not applicable
pH (1% dispersion):	Not applicable	Bulk Density:	100 lbs/ft ³
Melting /Freezing Point:	Not determined	Solubility:	Not determined
Boiling Point/Range:	Not determined	Partition Coefficient:	Not determined
Flash Point:	Not determined	Auto-ignition Temperature:	Not determined
Evaporation Rate:	Not determined	Decomposition Temperature:	Not determined
Flammability:	Not applicable	Viscosity:	Not applicable

SECTION 10: STABILITY AND REACTIVITY

Reactivity:	No hazardous reactivity known.
Chemical Stability:	Stable under normal storage and handling conditions.
Possibility of Hazardous Reactions:	No potential for hazardous reactions known.
Conditions to Avoid:	None known
Incompatible Materials:	None known
Hazardous Decomposition Products:	Thermal decomposition may produce oxides of carbon and nitrogen.

SECTION 11: TOXICOLOGICAL INFORMATION

Likely Routes of Exposure:	Eye contact, Skin contact, Inhalation, Ingestion
Symptoms of Exposure:	Mild mechanical irritation of eyes. Silicosis of the lungs or lung cancer.
Oral LD₅₀:	>4,900 mg/kg (rat)(Estimated based upon component data)
Dermal LD₅₀:	>2,000 mg/kg (rat)(Estimated based upon component data)
Inhalation LC₅₀:	Not determined
Eye Irritation/Damage:	Not anticipated to cause eye irritation based upon component data.
Skin Corrosion/Irritation:	Not anticipated to cause skin irritation based upon component data.
Skin Sensitization:	Not anticipated to cause skin sensitization based upon component data.
Chronic/Subchronic Toxicity:	<p>Prolonged inhalation of respirable crystalline silica may be harmful. May cause damage to organs (lungs) through prolonged or repeated exposure. There are reports in the literature suggesting that excessive crystalline silica exposure may be associated with autoimmune disorders and other adverse health effects involving the kidney. In particular, the incidence of scleroderma (thickening of the skin caused by swelling and the thickening of fibrous tissue) appears to be higher in silicotic individuals. To date, the evidence does not conclusively determine a causal relationship between silica exposure and these adverse health effects.</p>
Mutagenicity:	No data available
Reproductive Toxicity:	No data available

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Neurotoxicity:	No data available
Target Organs:	Lungs (respirable crystalline silica)
Aspiration Hazard:	Not an aspiration hazard.
Carcinogenicity:	Respirable Crystalline Silica (RCS) may cause cancer. Sand is a naturally occurring mineral complex that contains varying quantities of quartz (crystalline silica). In its natural bulk state, sand is not a known health hazard. Sand may be subjected to various natural or mechanical forces that produce small particles (dust) which may contain respirable crystalline silica (particles less than 10 micrometers in aerodynamic diameter). Repeated inhalation of respirable crystalline silica (quartz) may cause lung cancer according to IARC and NTP.

Chemical Name	ACGIH	IARC	NTP	OSHA
Respirable crystalline silica		Group 1	Known Human Carcinogen	

SECTION 12: ECOLOGICAL INFORMATION**Environmental Hazards Statement from FIFRA Regulated Pesticide Label:**

This pesticide is extremely toxic to fish and aquatic invertebrates. Do not apply when weather conditions favor drift from treated areas. Drift and run-off from treated areas may be hazardous to aquatic organisms in neighboring areas. To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Sweeping any product that lands on a driveway, sidewalk, or street, back onto the treated area of the lawn or garden will help to prevent run off to water bodies or drainage systems

ECOTOXICITY DATA:

Data presented below is on the bifenthrin technical product.

Fish Toxicity:*S. gairdneri*: 96-hour LC_{50} = 0.1 mg/L**Aquatic Invertebrate Toxicity:***Daphnia magna*: 96-hour EC_{50} = 0.65 mg/L**Aquatic Plant Toxicity:***P. subcapitata*: EC_{50} = 11.04 mg/L**Avian Toxicity:**Bobwhite quail: oral LD_{50} = 1800 mg/kg**Honeybee Toxicity:**Oral LD_{50} = 0.39 µg/bee**ENVIRONMENTAL EFFECTS:****Persistence and Degradability:**

No data available

Bioaccumulation:

No data available

Mobility:

No data available

Other Adverse Effects:

No data available

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SECTION 13: DISPOSAL CONSIDERATIONS

- Waste Disposal:** Refer to the pesticide label for full information on disposal. Pesticide wastes are toxic. Improper disposal of unused pesticide, spray mixture, or rinse water is a violation of Federal law. If these wastes cannot be used according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance in proper disposal methods.
- Container Disposal:** Refer to the pesticide label for full information on disposal. When possible, triple rinse the container and offer for recycling if available.
- RCRA Characteristics:** It is the responsibility of the individual disposing of this product to determine the RCRA classification and hazard status of the waste.

SECTION 14: TRANSPORTATION INFORMATION

- DOT (Ground):** Not regulated
- IMDG (Sea):** UN3077, Environmentally hazardous substance, solid, n.o.s. (Bifenthrin), 9, PGIII, Marine Pollutant
- IATA (Air):** UN3077, Environmentally hazardous substance, solid, n.o.s. (Bifenthrin), 9, PGIII

SECTION 15: REGULATORY INFORMATION

Labeling Requirements Under FIFRA: 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 absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

TSCA Inventory: This product is exempt from TSCA inventory listing requirements as it is solely for FIFRA regulated use.

SARA Title III Information:

Section 302 – Extremely hazardous substances: None

Section 311/312 – Hazard Categories: None

Section 313 – 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 Number	Weight %
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Bifenthrin	82657-04-3	0.2%
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CERCLA – This product contains the following chemicals which have a reportable quantity (RQ) under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):

Chemical Name	CAS Number	RQ	Quantity of Finished Product
None listed			

CALIFORNIA PROPOSITION 65:

Chemical Name	CAS Number	Prop 65 Category(ies)
Respirable Crystalline Silica	14808-60-7	Cancer

U.S. STATE RIGHT-TO-KNOW REGULATIONS:

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Bifenthrin	X		
Crystalline silica	X	X	X

SECTION 16: OTHER INFORMATION

NFPA	Health Hazards 1	Flammability 0	Instability 0	Special Hazards – None
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Revision Date: Mar 1, 2023
Document Superseded: September 9, 2014
Revision Note: Updated to format and most sections