



# MATERIAL SAFETY DATA SHEET



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**SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

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**PRODUCT NAME:** Evoluer 4-4 ULV  
**EPA REG. NUMBER:** 769-982  
**PRODUCT NUMBER:** 51020, 51021, 51022, 51023, 51024

**MANUFACTURER:** Value Garden Supply  
**ADDRESS:** P.O. Box 585, St. Joseph, MO 64502  
**WEBSITE:** www.allprovector.com

**MANUFACTURER PHONE:** (888) 603-1008  
**MANUFACTURER FAX PHONE:** (952) 884-6149  
**EMERGENCY PHONE:** (800) 858-7378

**PRODUCT USE:** For effective control of Adult Mosquitoes. For application by Public Health Officials and Trained Personnel of Mosquito Abatement Districts and Other Mosquito Control Programs.

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**SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS**

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<u>INGREDIENTS*:</u>	<u>CAS NO.</u>	<u>% WT</u>	<u>OSHA TWA</u>	<u>OSHA STEL</u>	<u>ACGIH TWA</u>	<u>ACGIH STEL</u>
Permethrin:	52645-53-1	4.0%	N/A	NE	N/A	NE
Piperonyl Butoxide:	51-03-6	4.0%	N/A	NE	N/A	NE
White Mineral Oil	8042-47-50	<92.%	5mg/M3	N/A	5mg/M3	10mg/M3

\* All ingredients in quantities > 1.0 % (0.1 % for carcinogens or teratogens) that are **potentially** hazardous per OSHA definitions

N/A = not applicable NE = not established

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**SECTION 3: HAZARDS IDENTIFICATION**

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**EMERGENCY OVERVIEW:** Potential Health Effects

**POTENTIAL HEALTH EFFECTS:** Eye and skin contact, inhalation. Prolonged or frequent repeated skin contact with permethrin may cause allergic reaction in some individuals. Repeated and prolonged skin contact with piperonyl butoxide may cause skin irritation. This product may cause temporary eye irritation.

**SYMPTOMS OF ACUTE EXPOSURE:** Large, toxic doses of permethrin, administered to laboratory animals, have produced central nervous system effects with symptoms that include diarrhea, salivation, bloody nose, tremors and intermittent convulsions. Overexposure to permethrin via inhalation also produced hyperactivity and hypersensitivity.

**CARCINOGENICITY:** Permethrin: A statistically significant increase of lung and liver tumors was observed in female mice receiving diets containing 375 and 750 mg/Kg/day over 85 weeks. Piperonyl Butoxide: Marginally higher incidences of benign liver tumors in mice were observed following lifetime high dose exposures. The significance of this observation is questionable and under review. The doses at which tumors were observed greatly exceeded human dietary intake. At anticipated dietary exposure levels, it is highly unlikely that piperonyl butoxide would result in carcinogenic effects. IARC has also concluded that there is no evidence for the carcinogenicity of white oils when administered by routes other than by interperitoneal injection. The solvent is not carcinogenic according to the OSHA Hazard Communication Standard.

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**SECTION 4: FIRST AID MEASURES**

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**EYES:** Immediately flush eyes with large amounts of water and continue flushing until irritation subsides. If irritation persists, seek medical attention (based on solvent).

**SKIN:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a Poison Control Center for treatment advice.

**INGESTION:** Immediately call a physician or Poison Control Center or doctor. Do not induce vomiting unless told by a poison control center or a doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.



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**INHALATION:** The solvent in this product has a low vapor pressure and is not expected to present an inhalation exposure hazard during mixing and loading. Follow directions for use on product packaging when applying this product.

**NOTE TO PHYSICIAN:** Contains petroleum distillate – vomiting may cause aspiration hazard

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## SECTION 5: FIRE-FIGHTING MEASURES

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**FLAMMABILITY CLASSIFICATION:** Non-flammable Liquid

**FLASH POINT:** 200°F

**AUTOIGNITION TEMPERATURE:** NE

**EXTINGUISHING MEDIA:** Use water fog, dry chemical, foam or CO2 extinguishing media.

**SPECIAL FIRE FIGHTING PROCEDURES:** Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area and equipment until decontaminated. Use as little water as possible to prevent spread of contaminated runoff.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:**

**NFPA HAZARD CLASSIFICATION:**

	<u>HEALTH</u>	<u>FIRE</u>	<u>REACTIVITY</u>	<u>SPECIFIC</u>
Non-fire	1	0	0	N/A

**NFPA HAZARD RATING CODES:**

	<u>INSIGNIFICANT</u>	<u>SLIGHT</u>	<u>MODERATE</u>	<u>HIGH</u>	<u>EXTREME</u>
	0	1	2	3	4

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## SECTION 6: ACCIDENTAL RELEASE MEASURES

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**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Wear chemical safety glasses with side shields or chemical goggles, rubber gloves, rubber boots, long-sleeved shirt, long pants, to prevent contact with spilled material. For small spills, cover the spill with an absorbent material such as pet litter. Sweep up and place in an approved chemical container. Wash the spill area with water containing a strong detergent, absorb with pet litter or other absorbent material, sweep up and place in a chemical container. Seal the container and handle in an approved manner. Flush the area with water to remove any residue. Do not allow wash water to contaminate water supplies.

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## SECTION 7: HANDLING AND STORAGE

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**HANDLING AND STORAGE:** Store the material in a well-ventilated, secure area, out of the reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco usage, and cosmetic application in areas where there is a potential for exposure to the material. Always wash thoroughly after handling.

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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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The employee must wear protective clothing and related safety equipment. Good ventilation should be sufficient for most conditions. Positive pressure self contained breathing apparatus should be used for confined spaces and high exposure operations. The employee should shower at the end of the workday. The employee must wear clean clothes every day or after a spill if the clothes become contaminated. Always wash hands and face with soap and water prior to eating, drinking, smoking or using toilet facilities. It is best not to wear contact lenses but use safety prescription glasses.

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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**APPEARANCE:** Clear Amber

**VAPOR PRESSURE (mmHg):** Solvent - <1 mm Hg @ 70°F



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**ODOR:** Slight solvent and licorice  
**PHYSICAL STATE:** Liquid  
**BOILING POINT:** NE  
**MELTING POINT:** N/A  
**FREEZING POINT:** N/A  
**WATER SOLUBILITY:** Oil Solution will not mix in water

**pH )::** N/A  
**SPECIFIC GRAVITY:** 0.8530  
**PERCENT VOLATILE BY VOLUME:** Solvent 39%  
**VISCOSITY:** 600 cps  
**AUTO IGNITION:** N/A  
**OTHER SOLUBILITIES:** NE

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## SECTION 10: STABILITY AND REACTIVITY

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**STABILITY:** Stable  
**INCOMPATIBILITY (MATERIAL TO AVOID):** Flame, heat, ignition sources and strong oxidizers or reducing agents.  
**HAZARDOUS POLYMERIZATION:** Will not occur.

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## SECTION 11: TOXICOLOGICAL INFORMATION

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**ACUTE ORAL EFFECTS:** Oral LD50 (Rat): >500 to <5,000 mg./Kg. (female) >5,000 mg./Kg. (male)  
**ACUTE DERMAL EFFECTS:** Dermal LD50 (Rat): >2,000 mg/Kg.  
**CARCINOGENICITY:** Permethrin: A statistically significant increase of lung and liver tumors was observed in female mice receiving diets containing 375 and 750 mg/Kg/day over 85 weeks. Piperonyl Butoxide: Marginally higher incidences of benign liver tumors in mice were observed following lifetime high dose exposures. The significance of this observation is questionable and under review. The doses at which tumors were observed greatly exceeded human dietary intake. At anticipated dietary exposure levels, it is highly unlikely that piperonyl butoxide would result in carcinogenic effects. IARC has also concluded that there is no evidence for the carcinogenicity of white oils when administered by routes other than by interperitoneal injection. The solvent is not carcinogenic according to the OSHA Hazard Communication Standard.  
**EYE EFFECTS:** Minimally irritating  
**INHALATION:** 4-hour LC50 (Rat): >2.02 mg./L.  
**SKIN CONTACT:** Non-irritating.  
**SKIN SENSITIZE:** Permethrin is a skin sensitizer in some individuals.  
**MUTAGENIC POTENTIAL:** Permethrin and Piperonyl Butoxide did not produce any mutagenic effects when tested in the Ames test.  
**REPRODUCTIVE HAZARD POTENTIAL:** Permethrin and Piperonyl Butoxide were not teratogenic when tested in rats.  
**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide and/or carbon dioxide. Chlorine and hydrogen chloride may be formed.

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## SECTION 12: ECOLOGICAL INFORMATION

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Permethrin and piperonyl butoxide are highly toxic to fish and other aquatic organisms. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark other than as instructed on the product label. Do not contaminate water by disposing of equipment washwater. Apply this product only as specified on the label.

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## SECTION 13: DISPOSAL CONSIDERATIONS

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**WASTE DISPOSAL METHOD:** Do not reuse product containers. Dispose of product containers, waste containers, and residues according to Federal, State and local health and environmental regulations.



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**SECTION 14: TRANSPORT INFORMATION**

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\*DOT HAZARD DESCRIPTION: Not Regulated

(\*) U.S Department of Transportation

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**SECTION 15: REGULATORY INFORMATION**

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**SARA TITLE III CLASSIFICATION:**

Section 311/312: Acute Health Hazard – Yes

Chronic Health Hazard – Yes

Fire Hazard – No

Sudden release of pressure hazard – No

Reactivity hazard – No

Section 313 chemicals:

Permethrin (4%) (CAS # 52645-53-1)

Piperonyl Butoxide (4%) (CAS # 51-03-6)

**TSCA STATUS:** Exempt from TSCA

**This product contains a toxic chemical or chemicals subject to the reporting requirements of Section 313 of Title III and of 40 CFR 372. Any copies or redistribution of this MSDS must include this notice.**

**INDIVIDUAL STATES:** N/A

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**SECTION 16: OTHER INFORMATION**

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This information is provided in good faith, but without express or implied warranty. For additional information, refer to the American Conference of Governmental Industrial Hygienists (ACGIH) documentation of TLV's (Threshold Limit Values) for individual components and the DOT Emergency Response Guidebook.