



SAFETY DATA SHEET

Vector Ban Plus

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA APPROVED PRODUCT LABEL (attached to and accompanying the product container). This SDS is intended to provide important health and safety information for employers, emergency responders and others handling large quantities of the product in activities generally other than product use as required by the Occupational Health and Safety Act (29 CFR 1910.1200). The product label provides information specifically for product use/application. Use, storage, and disposal of pesticide products is regulated by the EPA under the authority of FIFRA through the product label. All necessary hazard classification and appropriate precautionary use, storage and disposal information is set forth on that label. It is a violation of federal law to use an EPA registered pesticide product in any manner inconsistent with its labeling.

SECTION 1: IDENTIFICATION

Product Name: Vector Ban Plus
EPA Registration No.: 53883-257
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: N/A - Mixture
Chemical Name of Active Ingredient(s): Permethrin, Piperonyl Butoxide
Manufactured for: Control Solutions, Inc.
5903 Genoa-Red Bluff
Pasadena, TX 77507

FOR FIRE, SPILL, AND/OR LEAK EMERGENCIES CONTACT: CHEMTREC 1-800-424-9300
FOR MEDICAL EMERGENCIES AND HEALTH AND SAFETY INQUIRIES CONTACT: Safety Call 1-866-897-8050

SECTION 2: HAZARD(S) IDENTIFICATION

EMERGENCY OVERVIEW: Translucent yellow, viscous liquid with a slight odor.

OSHA HCS CLASSIFICATION (29 CFR 1910.1200)

Aspiration Hazard	Category 1
Acute Oral Toxicity	Category 4
Acute Inhalation Toxicity	Category 4
Eye Damage/Irritation	Category 2A
Carcinogenicity	Category 2

OSHA Signal Word: DANGER



Hazard Statement(s): May be fatal if swallowed and enters airways
Harmful if swallowed
Harmful if inhaled
Causes serious eye irritation
Suspected of causing cancer

Precautionary Statement(s):

Prevention: Wash hands thoroughly after handling.
Do not eat, drink or smoke when using this product.
Avoid breathing mist/vapors/spray.
Use only outdoors or in a well-ventilated area.
Wear eye protection and protective clothing.
Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Response: **IF SWALLOWED:** Immediately call a poison center/doctor. Do NOT induce vomiting. Rinse mouth.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

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.

*Please see Section 15 for an explanation of the difference between this SDS and the product label.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Weight %
Permethrin	52645-53-1	10.0%
Piperonyl butoxide	51-03-6	10.0%
Distillates (petroleum), hydrotreated light	*	19.9 – 39.75%
Naphthalene	91-20-3	<0.2%

*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.

Most important symptoms/effects, acute and delayed: Aspiration pneumonia, mild to moderate eye irritation.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:	Water spray, alcohol-resistant foam, dry chemical or carbon dioxide
Unsuitable Extinguishing Media:	Water jet as it may spread fire.
Hazardous Combustion Products:	Thermal decomposition may produce toxic carbon, nitrogen and sulfur oxides.
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 rinsate 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. Dike large spills using absorbent or impervious material such as clay or sand. Recover and contain as much free liquid as possible for re-use.
Methods for Clean-up:	Place recovered material in a separate container for re-use. After removal, flush contaminated area thoroughly with soap and water. Pick up wash liquid with additional absorbent and place in a disposable container. Do not put spilled material back in the original 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 contact with product 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):	Store at room temperature.
Product Incompatibilities:	Avoid contact with oxidizers, acids and alkalis.

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
Distillates (petroleum), hydrotreated light	TWA: 500 ppm	TWA: 100 ppm	-
Naphthalene	TWA: 10 ppm (50 mg/m3) STEL: 15 ppm	TWA: 10 ppm STEL: 15 ppm	TWA: 10 ppm (50 mg/m3) ST: 15 ppm (75 mg/m3)

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.

THE PERSONAL PROTECTIVE EQUIPMENT BELOW IS REQUIRED FOR PRODUCT APPLICATORS, END USERS, AND HANDLERS AND COMES FROM THE FIFRA APPROVED PESTICIDE LABEL:

Mixers, loaders, applicators, and other handlers who may be exposed to the concentrate must wear:

- Long-sleeve shirt and long pants,
- Shoes plus socks,
- Chemical-resistant gloves made of barrier laminate, butyl rubber (>14 mils), nitrile rubber (>14 mils), neoprene rubber (>14 mils), natural rubber (>14 mils), polyethylene, PVC (>14 mils), or viton (>14 mils)
- Chemical-resistant apron for mixers/loaders, persons cleaning equipment, and persons exposed to the concentrate and for handlers performing animal dip applications.

THE PERSONAL PROTECTIVE EQUIPMENT BELOW IS INTENDED FOR MANUFACTURING, PACKAGING AND COMMERCIAL BLENDING WORKERS:

Respiratory Protection: In areas of poor ventilation, use a NIOSH approved respirator with cartridges/canisters approved for pesticides.

Eye Protection: Chemical goggles or safety glasses with side 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.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Translucent yellow, viscous liquid	Upper/Lower Flammability Limits:	Not determined
Odor:	Slight characteristic	Vapor Pressure:	Not determined
Odor Threshold:	Not determined	Vapor Density:	Not determined
pH (1% dispersion):	5.0 – 5.5	Density:	0.92 (typical)
Melting /Freezing Point:	Not determined	Solubility (water):	Emulsifies
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 determined	Viscosity:	Not determined

*As an end-use mixture, many of the listed physical and chemical properties are not determined as they primarily apply to pure chemical substances.

SECTION 10: STABILITY AND REACTIVITY

Reactivity:	No hazardous chemical reactions known.
Chemical Stability:	Stable under normal storage and handling conditions.
Possibility of Hazardous Reactions:	No potential for hazardous reactions known.
Conditions to Avoid:	Excessive heat, sources of ignition
Incompatible Materials:	Strong oxidizers, acids and alkalis
Hazardous Decomposition Products:	Thermal decomposition may produce toxic carbon, nitrogen and sulfur oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

Likely Routes of Exposure:	Eye contact, Skin contact, Inhalation, Ingestion
Symptoms of Exposure:	Aspiration pneumonia, mild to moderate eye irritation.
Oral LD₅₀:	1,020 mg/kg (rat) ATE _{MIX}
Dermal LD₅₀:	>4,300 mg/kg (rat) ATE _{MIX}
Inhalation LC₅₀:	3.94 mg/L (4-hr)(rat) ATE _{MIX}
Eye Irritation/Damage:	Mild to moderate irritant based upon component data.
Skin Corrosion/Irritation:	Not anticipated to cause skin irritation based upon component data.
Skin Sensitization:	Non-sensitizer, based upon component data.

Chronic/Subchronic Toxicity:	No data available
Mutagenicity:	No data available
Reproductive Toxicity:	No data available
Neurotoxicity:	No data available
Target Organs:	None known
Aspiration Hazard:	Suspected of being an aspiration hazard based upon component data.
Carcinogenicity:	

Chemical Name	ACGIH	IARC	NTP	OSHA
Naphthalene		Group 2B	Suspected	
Permethrin*		Group 3		Present

*IARC Group 3 components are “not classifiable as human carcinogens”.

SECTION 12: ECOLOGICAL INFORMATION

Environmental Hazards Statement from FIFRA Regulated Pesticide Label:

This product is toxic to aquatic organisms, including fish and invertebrates. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. This product may contaminate water through run-off. This water has a potential for run-off for several weeks after application. Poorly draining soils and soils with shallow water tables are more prone to produce run-off that contains this product. For soil or foliar applications, do not apply by ground within 25 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish farm ponds.

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash waters or rinsate.

Do not apply the product into fish pools, ponds, streams, or lakes. Do not apply directly to sewers or storm drains, or to any area like a drain or gutter where drainage to sewers, storm drains, water bodies or aquatic habitat can occur.

Do not allow the product to enter any drain during or after application.

Do not apply directly to impervious horizontal surfaces such as sidewalks, driveways, and patios except as a spot or crack-and-crevice treatment.

Do not apply or irrigate to the point of runoff.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area. Protect pollinating insects by following label directions intended to minimize drift and to reduce risk to these organisms.

ECOTOXICITY DATA:

Fish Toxicity:	No data available
Aquatic Invertebrate Toxicity:	No data available
Aquatic Plant Toxicity:	No data available
Avian Toxicity:	No data available
Honeybee Toxicity:	No data available

ENVIRONMENTAL EFFECTS:

Persistence and Degradability:	No data available
Bioaccumulation:	No data available
Mobility:	No data available
Other Adverse Effects:	No data available

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): UN3082, Environmentally hazardous substance, liquid, n.o.s. (Permethrin, Piperonyl butoxide), 9, PGIII

IATA (Air): UN3082, Environmentally hazardous substance, liquid, n.o.s. (Permethrin, Piperonyl butoxide), 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 swallowed or absorbed through the skin. Avoid contact with skin, eyes or clothing. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Difference between SDS and Pesticide Label

	EPA LABEL	OSHA SDS
Signal Word	CAUTION	DANGER
Aspiration Hazard	Not classified	May be fatal if swallowed and enters airways.
Acute Oral Toxicity	Harmful if swallowed	Harmful if swallowed
Acute Dermal Toxicity	Harmful if absorbed through the skin	Not classified
Acute Inhalation Toxicity	Not classified	Harmful if inhaled
Eye Damage/Irritation	Not classified	Causes serious eye irritation
Carcinogenicity	Not classified	Suspected of causing cancer

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: Immediate (Acute); Delayed (Chronic)
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 %
Permethrin	52645-53-1	10.0%
Piperonyl butoxide	51-03-6	10.0%
Naphthalene	91-20-3	<0.2%

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)
Naphthalene	91-20-3	Carcinogen

SECTION 16: OTHER INFORMATION

NFPA	Health Hazards 1	Flammability 1	Instability 0	Special Hazards – None
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Disclaimer: Control Solutions, Inc. believes the information presented herein is accurate and correct as of the document date. The presented information is based upon available data from reliable sources. Control Solutions, Inc. makes no warranty, express or implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific purpose and for adopting any appropriate safety precautions. We disclaim all liability for injury or damage stemming from any improper use of the material or product described herein.

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