

MATERIAL SAFETY DATA SHEET **Perbaz 150 ULV**

IDENTIFICATION OF THE SUPPLIER:

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PRODUCT IDENTIFICATION:

Common Name: Permethrin 5% + Tetramethrin 2% + PBO 8% w/v
Trade Name: Perbaz 150 ULV
Type of formulation : Ultra Low Volume (ULV)
Chemical Name:
Permethrin: (3-phenoxyphenyl)methyl 3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropanecarboxylate
Tetramethrin: (1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)methyl 2,2-dimethyl-3-(2-methyl-1-propenyl)cyclopropanecarboxylate
PBO: 5-[[2-(2-butoxyethoxy)ethoxy]methyl]-6-propyl-1,3-benzodioxole
Chemical Formula:
Permethrin: $C_{21}H_{20}Cl_2O_3$
Tetramethrin: $C_{19}H_{25}NO_4$
PBO: $C_{19}H_{30}O_5$
Molecular Weight:
Permethrin: 391.3
Tetramethrin: 331.4
PBO: 338.4

PRODUCT COMPOSITION:

Active Ingredient:	% w/v	CAS #
Permethrin	5 %	[52645-53-1]
Tetramethrin	2 %	[7696-12-0]
PBO	8 %	[51-03-6]
Inert ingredient:		
Solvent	Up to 100%	--



HAZARDS IDENTIFICATION:

ACUTE EFFECTS:

Physical hazards:

None

Health hazards: Irritating to eyes and skin.

Inhalation: Vapour or spray mist may be harmful if inhaled.

Eye: Mild irritating to the eyes.

Skin: Prolonged or repeated skin contact may cause irritation or sensitization.

Ingestion: May be harmful if swallowed.

FIRST AID MEASURES:

Swallowed:

Provided the patient is conscious, wash out mouth with water and give 1 or 2 glasses of water to drink. Do not induce vomiting. Immediately transport victim to an emergency facility

Eye:

Irrigate for 20 minutes with copious quantities of water with eyelids held open. If irritation persists, repeat flushing. Seek medical attention immediately.

Skin:

Remove contaminated clothing. Flush skin with running water for a minimum of 20 minutes. If swelling, redness, blistering or irritation occurs seek medical attention immediately.

Inhalation:

Remove victim to fresh air. If not breathing, give artificial respiration preferably mouth-to-mouth. If breathing is labored, give oxygen. Obtain immediate medical attention.

FIRE FIGHTING MEASURES:

Fire and Explosion Hazards:

Flash Point: 65 °C

Combustible liquid. Keep fire exposed containers cool by spraying with water.

Extinguishing Media:

For small fires, use foam, carbon dioxide or dry powder extinguishing. For large fires, use foam or water-fog; avoid use of water jet. Contain run-off water with for example, temporary earth barriers.

Fire Fighting Instructions:

Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Fire exposed containers can build up pressure and should be kept cool with water spray if possible. Explosive vapor could form from ruptured containers. Dike and collect water used to fight fire to prevent environmental damage due to run off. Foam or dry chemical fire extinguishing systems is preferred to prevent environmental damage from excessive water run off.

Fire Fighting Equipment:

A self-contained breathing apparatus with full face-piece.

ACCIDENTAL RELEASE MEASURES:

Contain spill and absorb with sand or proprietary absorbent (vermiculite). Prevent from entering drains, waterway or sewers.

Collect in sealed open top containers for disposal. Generously cover the contaminated areas with common, household detergent brush in a small amounts of water, work the detergent into the remaining spilled material forming slurry. Collect slurry in sealed open top container for disposal. This material is water pollutant and should be prevented from drainage systems and bodies of water.

Disposal:

Triple rinse containers, add rinsate to the spray tank, and then offer container for recycling/reconditioning, or puncture top, sides and bottom and dispose of in landfill in accordance with local regulations. On-site disposal of concentrate is not acceptable.

Wastes disposal by industrial incineration or burial at a site approved by local authorities.

HANDLING AND STORAGE:

Keep out of Reach of Children.

Use only in a well-ventilated area. Do not reuse empty containers. Keep the container closed when not in use. Keep away from food, feed and drinking water. Store in a well ventilated, dry place away from heat and other sources of ignition. Keep away from freezing.

EXPOSURE CONTROLS/ PERSONAL PROTECTION:

Engineering Controls:

Natural ventilation only required when handling the concentrate.

A local exhaust should be used in confined areas to keep the level of solvent within acceptable limits.

Personnel Protection:

Facial skin contact may cause temporary facial numbness.

Sensitive workers should use protective clothing. Avoid contact with eyes and skin. Do not inhale spray mist. When preparing spray wear cotton overalls buttoned to the neck and wrist and washable hat, elbow-length PVC gloves and face shield or goggles. After use and before eating, drinking or smoking wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, face shield or goggles and contaminated clothing.

PHYSICAL AND CHEMICAL PROPERTIES:

Appearance: Clear light yellow liquid.

Odour: Aromatic odor

Density: 0.87 ± 0.05 g/ml

PH: 5-6

STABILITY AND REACTIVITY:

Stability:

Stable at room temperature.

Incompatibility:

Strong Oxidize Agents. Acids and alkaline materials

Hazardous polymerization:

Will not occur.

Conditions to avoid:

Keep away from heat. Keep away from sources of ignition – No smoking.

Hazardous Decomposition Products:

Thermal decomposition products are toxic and may include hydrocarbons ammonia, organic and acid halides, oxide of carbon, nitrogen and Sulphur.



TOXICOLOGICAL INFORMATION:

EYE EFFECTS

Non-irritating (rabbit)

SKIN EFFECTS

Irritation (rabbit): Slightly irritating

Absorption (rabbit): LD50 > 5,000 mg/kg

Sensitization (guinea pig): Positive

ACUTE ORAL EFFECTS

LD50 (rat) > 500 mg/kg and < 5000 mg/kg

ACUTE INHALATION EFFECTS

4-Hour LC50 (rat) = 8.976 mg/L

CHRONIC (CANCER INFORMATION)

A statistically significant increase in the number of benign liver tumors appeared in mice fed piperonyl butoxide technical at doses which far exceed any anticipated daily human intake. Independent and industry toxicological experts who have reviewed the data agree that the findings of the study do not indicate a health risk to human beings.

A statistically significant increase in the incidence of lung and liver tumors was observed in female mice receiving diets containing 375 and 750 mg/kg/day of permethrin technical over 85 weeks.

ECOLOGICAL INFORMATION:

Keep out of water supplies ground water or open water. This product is toxic to fish and wildlife.

Toxic to bees. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

DISPOSAL CONSIDERATIONS:

Disposal Method:

Do not contaminate ponds, waterways or ditches with chemical or used containers. Dispose of in facility permitted for hazardous waste.

Container Disposal:

Empty container retains product residue. Triple rinse or equivalent, empty container, return rinse water to dilution mixture, and dispose of dilution mixture as a hazardous waste if it cannot be disposed of by use according to label instructions.





Do not reuse container. Offer if for recycling or reconditioning, or
puncture and dispose of in properly permitted landfill.