
1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: **Permethrin Technical** EPA Registration No: 33658-20

Gharda Chemicals Limited
660 Newtown-Yardley Rd.
Newtown, PA 18940

Emergency Response Telephone Numbers
For Spills Call: CHEMTREC: 1-(800)-424-9300
For Medical Call : 1-(866)-359-5660

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>INGREDIENTS:</u>	<u>(% w/w)</u>	<u>PEL/TLV</u>
Permethrin 3-phenoxybenzyl (1RS)-cis,trans-3-(2,2-dichlorovinyl)- 2,2-dimethylcyclopropane carboxylate	94.0	Not established
Other Ingredients	6.0	N/A

Chemical Class: Synthetic pyrethroid insecticide

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW:

EPA Signal Word: Caution
World Health Classification (WHO): Slightly hazardous (Class 3)
Harmful if swallowed.
Wash thoroughly with soap and water after handling.
Avoid contact with eyes, skin, or clothing.
Avoid breathing vapors
Extremely toxic to fish and other aquatic organisms.

4. FIRST AID MEASURES

INGESTION: Call poison control center or doctor immediately for treatment advise. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person. Have person sip a glass of water if allowed to swallow.

EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.

SKIN: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.

INHALATION: Remove person to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention if symptoms persist.

NOTE TO PHYSICIAN: Treatment is controlled removal of exposure followed by symptomatic and supportive care. Chemical is a synthetic pyrethroid.

5. FIRE FIGHTING MEASURES

Flammability Limits:	LFL: Not Determined UFL: Not Determined
Extinguishing Media:	Water, Standard Foam, CO ₂ , Halon, Dry Chemical. For larger files it is permissible to use water spray.
Fire Fighting Precautions:	Remove containers from fire, if possible. Fight fire from maximum distance. Do not scatter spilled material with high-pressure water streams. Dike fire control water for later disposal. Use Agents suitable for type of surrounding fire.
Fire & Explosion Precautions:	Foam fire-extinguishing system is preferred because uncontrolled water can spread possible contamination. Toxic irritating gases can be formed. Avoid breathing hazardous vapors, keep upwind.
Fire-Fighting Equipment:	As for all chemical fires: use positive-pressure self-contained breathing apparatus and full protective equipment.
Water Partition Coefficient:	$\log_{10} P_{ow}$ is 3.93 (distilled water)
pH:	NA
Stability:	Stable to metals, metal ions, sunlight, and elevated temperature of 129°F (54°C) for 14 days.

6. ACCIDENTAL RELEASE MEASURES

IN CASE OF SPILLS OR LEAKS: FOR EMERGENCY: Call CHEMTREC: 1-800-424-9300. Contain the spill area. Carefully sweep up the spilled material and place it in a suitable container for disposal. Area can be washed down with water and detergent to remove remaining insecticide. Keep product, contaminated materials and wash water out of sewers. Wash exposed body areas thoroughly after handling.

7. HANDLING AND STORAGE

Keep pesticide in original container. Store in cool, dry place. Protect from excessive heat. Do not contaminate food or foodstuffs. Do not store or transport near feed or food.

8. PERSONAL PROTECTION

EXPOSURE GUIDELINE(S): No occupational exposure limits established by ACGIH TLV and OSHA PEL for Permethrin.

VENTILATION: Provide general and/or local exhaust ventilation.

RESPIRATORY PROTECTION: For most conditions, no respiratory protection should be needed; however, if inhalation exposure is likely, use a NIOSH approved air-purifying respirator with a pesticide cartridge.

EYE/FACE PROTECTION: Use protective eye ware.

SKIN PROTECTION: Wear long-sleeved shirt and long pants, chemical resistant gloves and shoes plus socks when handling this product.

SPECIAL PRECAUTIONS FOR HANDLING AND STORAGE: Harmful if swallowed. Do not get in eyes, on skin, or on clothing. Wash thoroughly with soap and water after handling and before eating or smoking. Avoid breathing this material. Keep away from food, feedstuffs, and water supplies.

9. PHYSICAL AND CHEMICAL PROPERTIES

CHEMICAL & PHYSICAL PROPERTIES:

Color:	Colorless to yellow brown
Physical State:	Semi-solid
Odor:	Mild aromatic odor
Melting Point:	237°F to 241°F (114°C to 116°C)
Specific Gravity (Relative. Density):	1.259
Solubility:	n-Hexane >2000 g/liter Ethyl acetate >2000/liter Dichloroethane >2000g/liter
Vapor Pressure:	5.45×10^{-5} Pascals at 25°C
Dissoc. Constant:	NA
Water Partition Coefficient:	$\log_{10} P_{ow}$ is 3.93 (distilled water)
pH:	NA
Stability:	Stable to metals, metal ions, sunlight, and elevated temperature of 129°F (54°C) for 14 days.

10. STABILITY AND REACTIVITY

REACTIVITY:

Conditions to Avoid:	No special precautions.
Stability:	Stable under normal conditions of storage.
Incompatibility (Specific Material to Avoid)	Strong oxidizing materials.
Hazardous Decomposition:	Thermal decomposition products may emit toxic fumes of hydrogen chloride and oxides of carbon..
Hazardous Polymerization:	Will not occur under normal pressure and temperature.

11. TOXICOLOGICAL INFORMATION

ACUTE EXPOSURE:

EYE: Non-irritant

SKIN CONTACT: Non-irritant

SKIN ABSORPTION: The acute lethal dermal toxicity is considered to be low. The percutaneous LD₅₀ for rabbits is greater than 5000 mg/kg.

INGESTION: The acute oral toxicity is considered to be low. The oral LD₅₀ for rats is determined to be between 500 and 5000 mg/kg body weight.

INHALATION: The acute inhalation toxicity is considered to be low. The LC₅₀ (4-hour) for Permethrin in rats is greater than 2.08 mg/l in air. The LC₅₀ (4-hour) for Permethrin is in excess of 2 mg/l, this test substance can be considered to be Category IV in accordance with EPA classification (US EPA Health Effects Test Guidelines, OPPTS §70.1000 Acute Toxicity Testing).

CARCINOGENICITY: Non-carcinogenic. The likelihood of oncogenic effects in human beings is extremely low or non-existent.

TERATOLOGY (BIRTH DEFECTS): The maternal and fetal no effect levels in rats, mice or rabbits are 225, 150, and 1800 mg/kg body weight, respectively.

REPRODUCTIVE EFFECTS: Permethrin did not interfere with fertility in laboratory animals (rats) at diet levels of 100 mg/kg in a 3-generation (two litters per generation) reproduction study.

MUTAGENICITY (EFFECTS ON GENETIC MATERIAL): Based on a number of *in vivo* and *in vitro* studies, the preponderance of data suggests that Permethrin is not a mutagen.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL PRECAUTIONS: This product is extremely toxic to fish and other aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other bodies of waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not contaminate water when disposing of equipment washwaters. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or the Regional Office of the Environmental Protection Agency.

13. DISPOSAL CONSIDERATIONS

Pesticide disposal: Wastes resulting from the use of this product must be disposed of at an approved waste disposal facility.

Container disposal: Contaminated packaging material should be treated as the product. See label for proper disposal methods.

14. TRANSPORT INFORMATION

PROPER SHIPPING NAME: PYRETHROID PESTICIDE, LIQUID, TOXIC, N.O.S.
(Permethrin)

HAZARD CLASS OR DIVISION: 6

IDENTIFICATION NUMBER: UN 3352

PACKING GROUP: III

ADDITIONAL INFORMATION: RQ (PERMETHRIN), MARINE POLLUTANT

15. REGULATORY INFORMATION

SARA 313 INFORMATION: To the best of our knowledge, this product contains no chemical subject to SARA Title III Section 313 supplier notification requirements.

SARA HAZZARD CATEGORY: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and reauthorization Act of 1986 (Sara Title III) and is considered, under applicable definitions, to meet the following categories:

- An Immediate Acute Health Hazard



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TOXIC SUBSTANCES CONTROL ACT (TSCA): All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

OSHA HAZARD COMMUNICATION STANDARD: None established.

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RATINGS:

Category	Rating
Health	1
Flammability	0
Reactivity	0

COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA, or SUPERFUND): This product contains the following substance(s) listed as "Hazardous Substances" under CERCLA, which may require reporting of releases:

Category:

Chemical Name	CAS Number	RQ	% in Product
Permethrin	52645-53-1	none	94.0%

16. OTHER INFORMATION

Issue Date: October 4, 2010

NOTICE: The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, expressed or implied, is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state, and local laws and regulations.