

MATERIAL SAFETY DATA SHEET

1. COMPANY AND PRODUCT IDENTIFICATION

Commercial Name : Permethrol 20
 Manufacturer : Tapazol Chemical Works Ltd.
 Date of revision: 10.05.2012 Hasolela 1, Bet-shemesh, Israel

2. COMPOSITION INFORMATION ON INGREDIENTS

Chemical Nature of Substance or Preparation

Family : Pyrethroid insecticide
 Utilisation : Insecticide

Constituents

CAS	EINECS	NAME	Concentration
52645-53-1	613-058-00-2	Permethrin tech	20 %
1330-20-7		xylenes	65-75 %

3. HAZARDS IDENTIFICATION

Emergency Overview

Viscous, yellow or brown liquid with solvent odour. Flammable. Highly toxic to fish and aquatic organisms. Keep out of drains and watercourses.

Potential Health Effects

Effects resulting from coming into contact with the skin: this product rarely produces skin sensations such as numbing, burning and tingling. Thee skin sensations are reversible and usually subside within 12 hours.

Medical Conditions Aggravated by Exposure

Skin affections.

4. FIRST AID MEASURES

Inhalation

Remove to fresh air. If breathing difficulty or discomfort persists, obtain medical attention.

Contact with Skin

1



תכשירים לחקלאות • תברואה • וטרינריה

אזור תעשייה מערבי בית שמש 99052 טל': 02-992 6040, פקס: 02-9926050
www.tapazol.co.il • info@tapazol.co.il



Wash with plenty of soap and water.

Contact with Eyes

Flush with water for at least 15 minutes. If irritation occurs and persists, obtain medical attention.

Ingestion

Drink one or two glasses of water and induce vomiting by touching the back of the throat with a finger, or by giving syrup of ipecac. Never induce vomiting or give anything by mouth to an unconscious person. Contact a medical doctor.

Note to Medical Doctor

Permethrin formulation has low oral, dermal and inhalation toxicity, and is minimally irritating to the eyes and practically non-irritating to the skin. Reversible skin sensation (paresthesias) may occur and ordinary skin salves have been found useful in reducing discomfort. Treatment is otherwise controlled removal of exposure followed by symptomatic and supportive care.

5. FIRE FIGHTING MEASURES

Flash Point

28 C

Extinguishing Media

Dry powder or foam

Explosion Hazard

Flammable

Special Fire Fighting Procedures

Isolate fire area. Evacuate downwind. Wear full protective clothing and self-contained breathing apparatus. Do not breathe smoke gases or vapour generated.

Hazardous Decomposition Products

Carbon monoxide and carbon dioxide. Minor quantities of chlorine and hydrogen chlorine may be formed.

6. ACCIDENTAL RELEASE MEASURES

Spillage

Isolate and post spill area. Wear protective clothing and personal protective equipment as prescribed in Section 8. 'Exposure Controls Personal Protection'. Keep unprotected persons and animals out of the area. Keep material out of streams and sewers. Dike to confine spill and absorb with a non-combustible

absorbent such as clay, sand or soil. Vacuum, shovel or pump water into a drum and label content.

Clean Spillage

To clean and neutralize spill area, tools and equipment, wash with a suitable solution (i.e. bleach or caustic soda ash and either ethylene glycol or an appropriate alcohol, i.e. methanol, ethanol or isopropanol). Follow this by washing with a strong soap and water solution.

7. HANDLING AND STORAGE

Store in a cool, dry, well ventilated place. Do not use or store near heat, open flame and hot surfaces. Store in original containers only. Keep out of reach of children and animals. Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Ventilation

Use local exhaust at all process locations where vapour or mist may be emitted. Ventilate all transport vehicles prior to unloading.

Respiratory Protection

For splash, spray or mist exposure, as a minimum, a properly fitted half-face air-purifying respirator, which is approved for pesticides (U>S>NIOSH< MSHA, EU Cen or comparable certification organization). Respirator use and selection must be based on airborne concentrations.

Hand Protection

Wear chemical protective gloves made of materials such as neoprene. Thoroughly wash the outside of gloves with soap and water prior to removal. Inspect regularly for leaks.

Eye Protection

For splash, spray or mist exposure, wear chemical protective goggles or face shield.

Work Clothing

Depending upon concentrations encountered, wear coveralls or long-sleeved uniform and head covering. For larger exposures as in the case of spills, wear full body cover barrier suit, such as shoes, belts and watchbands – that become contaminated should be removed and destroyed. Launder all work clothing before reuse (separately from household laundry).

Personal Hygiene

Clean water should be available for washing in case of eye or skin contamination. Wash skin prior to eating, drinking or smoking. Shower at the end of the workday.

9. PHYSICAL & CHEMICAL PROPERTIES

Appearance	:	Viscous yellow to brown liquid
Flash Point	:	28 C (closed cup)
Boiling Point	:	Vast range 140 ⁰ C to 200 ⁰ C/0.3 ml/g
Vapour Density	:	Not applicable
Vapour Pressure	:	Negligible
Specific Gravity	:	0.9 gr./ml at 20 ⁰ C
pH	:	Not applicable
Solubility in Water	:	< 0.02 ppm

10. STABILITY AND REACTIVITY

Materials /conditions to Avoid	:	Excessive heat and fire
Hazardous Polymerization	:	Will not occur

11. TOXICOLOGICAL INFORMATION for formulated product

Acute Toxicity

LD ₅₀ > 2000 mg/Kg	(rat – oral)
LD ₅₀ > 10000 mg/Kg	(rabbit – dermal)
LC ₅₀ > 3000. mg/m ³ ,3h	(rat – inhalation)

Effects from Overexposure

Permethrin has low oral, dermal and inhalation toxicity, and is minimally irritating to eyes and practically non-irritating to the skin. Experience to date indicate that contact with Permethrin has rarely produced skin sensations such a numbing, burning or tingling. These sensations are reversible and usually subside within 12 hours. Large, toxic doses administered to laboratory animals have produced symptoms such as diarrhea, salivation, tremors and intermittent convulsions. Overexposure of animals of Permethrin via inhalation has also produced hyperactivity and hypersensitivity.

Chronic Effects from Overexposure

In studies with laboratory animals, Permethrin did not cause reproductive toxicity or teratogenicity. Analysis of chronic feeding studies in both mice and rats with Permethrin resulted in the conclusion that Permethrin's potential for induction of oncogenicity in experimental animals is low and that the likelihood of oncogenic effects in humans is non-existent or extremely low. Long term feeding studies in animals resulted in increased liver and kidney weights, induction of the liver

microsomal drug metabolizing enzyme system and histopathological in the lungs and liver. An overall absence of genotoxicity has been demonstrated in mutagenicity testing with Permethrin.

12. ENVIRONMENTAL INFORMATION

Physical Environmental Properties

The formulation is stable at a wide range of pH values. Permethrin itself has a moderate rate of degradation in soil and the half-life is related to the soil type, microbial population, and concentration in the soil and the aerobic condition of the soil. Because of its highly affinity for organic matter ($K_{OC}=86,000$), there is little potential for movement in soil or entry into ground water. Permethrin has a Log Pow of 6.1, but because of the ease with which biological systems degrade the molecule, the potential for bio-concentration and accumulation in the environment is low ($BCF=500$).

Environmental Toxicology

Permethrin formulation is highly toxic to fish ($LC_{50}=0.5\mu\text{g L to } 7.6\mu\text{g L}$). Marine species are often more tolerant f Permethrin than the fish and arthropods. Care should be taken to avoid contamination of the aquatic environment. Permethrin is slightly toxic to birds and oral LD_{50} values are greater than 3,600 mg/Kg. Longer dietary studies showed that concentrations of up to 500 ppm in the diet had no effect on bird reproduction. Toxic to bees.

13. DISPOSAL CONSIDERATIONS

Open dumping or burning of this pesticide or its packaging is prohibited. If spilled material has to be disposed of according to label instructions. However, because acceptable methods of disposal may vary by location and regulatory requirements may change, the appropriate regulatory agency should be contacted prior to disposal. Container which held these pesticides should be cleaned, prior to disposal, by triple-rinsing.

14. TRANSPORT INFORMATION

UN no. 1993: FLAMMABLE Liquid N.O.S. (Permethrin, Solvent),
flash point not less than 23°C.
Class:3
Packing group: III

15. REGULATORY INFORMATION

Hazards Identification

Xn : Harmful
N : Very toxic to aquatic organisms

Safety Sentences (S)

- S 52 : Keep out of reach of children
S13 : Keep away from food, drink and animal feeding stuff
S20 21 : When using, do not eat, drink or smoke
S49 : Keep in original container
S61 : Avoid release into the environment

16. OTHER INFORMATION

The data contained herein is based on current knowledge and experience. It is made in conformity with applicable regulations and in good faith. This safety data sheet is additional to label but does not replace it. It does not dispense with user, by all means, to know and apply all the regulatory requirements. He will undertake all responsibility concerning the precautions related to the use made with this product.

The purpose of this safety data sheet is to describe the product in terms of its safety requirements. The data does not signify any warranty with regard to the product properties.