

ALPHA ENVIRONMENTAL

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MATERIAL SAFETY DATA SHEET

PERMEX INSECT DUST January 2018

1. **PRODUCT AND COMPANY IDENTIFICATION**

PRODUCT NAME: PERMEX INSECT DUST

RECOMMENDED USE

A residual insecticide for the control of crawling and flying insects in household, industrial and timber processing environments.

CHEMICAL GROUP: Synthetic Pyrethroid

MANUFACTURER IDENTIFICATION

Masterchem Manufacturing Ltd
9 Bancroft Crescent
Glendene, Auckland

EMERGENCY TELEPHONE NUMBER

Masterchem Manufacturing Ltd 021 272 1408, + 64 9 817 9467 (after hours)
National Poisons Centre 0800 764 766

2. **HAZARDS IDENTIFICATION**

HSNO Classification: 6.5A, 6.5B, 6.9B, 9.1A, 9.4B

EYES Irritation of cornea

SKIN Minor irritation

INHALED Toxic by inhalation. Exposure can lead to pulmonary fibrosis

SWALLOWED Irritation

ACUTE Permethrin has low oral, dermal and inhalation toxicity, and is minimally irritating to the eyes and practically non-irritating to the skin.

Experience to date indicates that contact with Permethrin has rarely produced skin sensation sensations such as numbing, burning or tingling.

These sensations are reversible and usually subside within 12 hours.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS Number	Concentration
- Permethrin C ₂₁ H ₂₀ Cl ₂ O ₃	52645-53-1-5	2.5%
- Other ingredients deemed not to be hazardous		97.5%

4. FIRST AID MEASURES

IF SWALLOWED

If the Person is Awake

Keep the person calm

DO NOT give them anything to drink

DO NOT make them vomit [click here for more information](#)

Call the National Poisons Centre.

If the Person is Having Difficulty Breathing

Keep the person calm

Help the person into a position so that breathing is as easy as possible

Quickly ring the emergency services telephone number to call an ambulance.

IF BREATHED IN

If the Person is Awake

Protect yourself first

Keep the person calm

Remove them to fresh air and rest

Do NOT give them anything to drink

Call the National Poisons Centre.

If the Person is Having Difficulty Breathing

Protect yourself first

Keep the person calm

Remove them to fresh air and rest

Help the person into a position so that breathing is as easy as possible

Quickly ring the emergency services telephone number to call an ambulance.

IF ON THE SKIN

Remove any source of further contamination (such as contaminated clothing)

Flush the affected area with water as soon as possible

Continue to flush until:

All of the substance is removed

Do NOT scrub the skin roughly

Do NOT use any solvent (e.g. soap, acetone, mineral turpentine)

Call the National Poisons Centre.

IF IN EYES

Flush the eye with running water for at least 15 minutes.

If you have difficulty flushing the eye(s), go to your nearest Medical Centre or Hospital for help in flushing.

After flushing you will need to have a medical examination of the eye performed at a Medical Centre or Hospital to check for any damage.

ADVICE TO DOCTOR

Permethrin has low oral, dermal and inhalation toxicity and minimal eye and skin irritation. Reversible skin sensations 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

Non-flammable, non-explosive

6. ACCIDENTAL RELEASE MEASURES

Spills and Disposal

Carry agent is a natural component of rocks.

Open dumping or burning of this pesticide or its packaging is prohibited.

An acceptable method of disposal is to burn in an incinerator in accordance with local and national environmental laws, rules, standards and regulations.

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.

7. HANDLING AND STORAGE

Store in multi-wall paper bags in a dry, well ventilated environment under cover.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Wear an NIOSH/MSHA approved dust mask and eye protection.

TAKE CARE the material is very slippery, wet or dry - wear non-slip footwear.

9. PHYSICAL AND CHEMICAL PROPERTIES

White or cream powder. Insoluble in water. Odourless or slightly perfumed odour.

DECOMPOSITION TEMP: 1000⁰ C losing water of hydration.

MELTING POINT: 1250⁰ C

SPECIFIC GRAVITY: 2.7 - 2.8g/cm³

10. STABILITY AND REACTIVITY

Permethrin is rapidly degraded in sunlight ($T_{1/2} < 1$ hour), however it is stable at a wide range of pH conditions.

It has 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 high affinity for organic matter, there is little potential for movement in soil or entry into ground water.

Because of the ease with which biological systems degrade the molecule, the potential for bioconcentration and accumulation in the environment is low.

11. ECOLOGICAL INFORMATION

Permethrin is highly toxic to fish ($LD_{50} = 0.5$ ug/L to 315 ug/L) and aquatic arthropods ($LD_{50} = 0/02$ ug/L to 7.6 ug/L).

Marine species are often more sensitive than the freshwater species.

Bacteria, algae, molluscs and amphibians are much more tolerant of 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 3600 mg/kg.

Longer dietary studies showed that concentrations of up to 50ppm in the diet had no effect on bird reproduction.

12. TOXICOLOGICAL INFORMATION

Rat Acute Oral: $LD_{50} = 6000$ mg/kg

Rat Acute Inhalation: $LD_{50} > 23.5$ mg/l/4hr

Rabbit Acute Dermal: $LD_{50} > 2000$ mg/kg

Large, toxic doses administered to laboratory animals have produced symptoms such as diarrhoea, salivation, tremors and intermittent convulsions.

Over-exposure of animals to permethrin via inhalation has also produced hyperactivity and hypersensitivity.

13. DISPOSAL CONSIDERATIONS

Acceptable method of disposal is to burn in an incinerator in accordance with local, and national environmental laws, rules, standards and regulations.

The appropriate regulatory agency should be contacted prior to disposal.

14. TRANSPORT INFORMATION

Packages greater than 3kg are not permitted on passenger service vehicles.

15. REGULATORY INFORMATION

ERMA Approval Code: HSR000272

16. OTHER INFORMATION

Agriquality approved type B and C (food, beverage and dairy factories)

Date of Preparation: June 2012

NOTICE

Information for this product is believed to be reliable, however buyer and user assume all risk of use, handling and storage whether in accordance with directions or not.

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