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SAFETY DATA SHEET

Date of Preparation: August 2018

PERMEX INSECT DUST

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

COMPANY 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

Low oral toxicity if swallowed.
May cause mild eye irritation.
May cause mild skin irritation.
Causes damage to organs through prolonged or repeated exposure.
Very toxic to fish and freshwater invertebrates.
Inhibits the growth of bacteria.

3. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS	CAS NUMBER	CONCENTRATION
Permethrin $C_{21}H_{20}Cl_20_3$	52645-53-1-5	2.5%
Other ingredients deemed not to be hazardous		97.5%

4. FIRST AID MEASURES

Consult the national poisons information centre 0800 poison (0800 764 766) or a doctor in every Case of suspected chemical poisoning. Never give fluids or induce vomiting if a patient is unconscious or convulsing regardless of cause of injury. If breathing difficulties occur seek medical attention immediately.

Effects and symptoms:
Permex Insect Dust has low oral, dermal and inhalation toxicity. The talc used in this product contains no asbestos fibre. Exposure at or below the TWA (2.5 mg/m^3) is thought to protect workers from the significant risk of non-malignant respiratory effects associated with talc dusts.

Swallowed:
Permex Insect Dust has low oral toxicity; the acute oral LD_{50} (rat) 12,000 mg/kg (calculated). However if poisoning occurs when swallowed, do not induce vomiting. If conscious and alert, rinse mouth and drink 1-2 cups of water. Begin artificial respiration if the victim is not breathing. Use mouth to nose rather than mouth to mouth. Obtain urgent medical attention.

Skin contact:
Non-irritating to the skin. Acute dermal LD_{50} (rabbit) > 2000 mg/kg. If on skin, immediately wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse. Destroy contaminated leather articles such as belts and watchbands. Seek medical attention.

Eye contact:
Mildly irritating to the eyes. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Remove contact lenses if present and continue rinsing. Do not allow victim to rub eyes or keep eyes closed. Obtain urgent medical attention.

Inhalation:
Low inhalation toxicity. Acute inhalation LC_{50} (rat) > 5.27 mg/L1 hour. May irritate the mucous membranes of the respiratory tract. Move the victim to fresh air immediately. Begin artificial respiration if breathing has stopped. Obtain medical attention immediately.

First aid facilities:
Provide eye baths and safety showers close to areas where exposure may occur.

Medical attention:
Treat symptomatically and supportively, monitoring the development of hypersensitivity reactions with respiratory distress. Gastric lavage may be indicated if ingested. No known antidote. Do not confuse with cholinesterase poisoning. Skin contacted may be carefully cleaned with cleansing milk. Symptoms can be partially alleviated by the application of a vitamin E or moisturizing cream or anaesthetic ointment. For eyes, instil local anaesthetic drops e.g. 1% amethocaine hydrochloride eye drops. Give analgesics as necessary. In all cases consult the National Poisons Centre for the most up to date treatment information.

5. FIRE FIGHTING MEASURES

Material may support combustion at elevated temperatures. Thermal decomposition and burning may produce toxic by-products. Do not allow contaminated run-off to enter drains. Self-contained breathing apparatus required. Use dry chemical, alcohol foam, or carbon dioxide as extinguishing media. Soft stream water fog only is necessary. Contain all runoff.

Hazardous thermal (de)composition products:
Carbon monoxide, carbon dioxide, hydrogen chloride, chlorine, hydrogen chloride and sulphur dioxide.

Hazchem Code: N/A **Flash Point:** N/A

6. ACCIDENTAL RELEASE MEASURES

Small Spills:
Wear appropriate protective clothing whilst cleaning up small spills (see Personal Protection). Apply absorbent material such as earth, sand or clay granules to the spill. Sweep up material for disposal when absorption is complete. Clean up minor spills immediately.

Large Spills:
Wear protective clothing. Clear the area of all unprotected personnel. As a standard precautionary measure, shut off all sources of ignition. Place leaking containers into salvage drums. Apply absorbent material such as damp earth, sand or clay granules to spill area. Form a barricade around the spill and in front of drains or waterways in spill vicinity, using earth or other available material. Prevent entry of material into drains or water ways.

Waste Disposal Method:
Contaminated absorbent and wash water should be disposed of according to local regulations under the Resource Management Act. Avoid contamination of any water supply with chemical or empty containers.

7. HANDLING AND STORAGE

Precautions for safe handling:
Do not contaminate water, feed, or food by storage, handling, or disposal. No smoking, eating or drinking should be allowed where material is used or stored. Read and observe all precautions and instructions on the label. Avoid contact with food, clothing, drugs or other household goods during transportation.

Conditions for safe storage:
Store containers upright and closed. Store in a cool, dry place away from direct sunlight and in well ventilated areas, away from children and animals. Keep away from heat, ignition sources and strong oxidizers. Emptied containers may retain product residues.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits:
Exposure guideline:
Workplace exposure standards: Not Established
Exposure Standards outside the workplace: Not Established

Engineering Controls:
Control airborne concentrations below the exposure guideline. Good general ventilation should be sufficient for most conditions.

Hygiene Controls:
Facilities storing or utilising this material should be equipped with an eyewash facility, safety shower and facility for washing hands/face after work.

Personal Protective Equipment:
Respiratory Protection:
Wear an approved organic vapour respirator in absence of proper mechanical ventilation.

Eye Protection:
Wear approved safety glasses, goggles, or a full-face shield.

Skin/Body Protection:
Do not smoke, eat, drink or apply cosmetics in work area. Wear waterproof gloves when prolonged or frequently repeated contact could occur. Wash promptly if skin becomes contaminated. Wash at the end of each work shift and before eating, smoking and using the toilet.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White powder, odourless or slightly perfumed odour.
Physical State:	Powder
Boiling Point:	Not applicable
Melting Point:	1250 °C
Flash Point:	Not applicable
Solubility:	Does not mix readily with water. To be used as a dust.
Specific Gravity @ 20ºC:	2.7 - 2.8g/cm^3

10. STABILITY AND REACTIVITY

Chemical Stability:	Stable at room temperature and pressure
Hazardous decomposition products:	Oxides of carbon under fire conditions.
Specific Materials to Avoid:	None known
Hazardous Polymerisation:	Will not occur

11. TOXICOLOGICAL INFORMATION

Acute Effects:

Rat Acute Oral:	LD_{50} = 6000mg/kg
Rat Acute Inhalation:	LD_{50} > 23.5 mg/l/4hr
Rabbit Acute Dermal:	LD_{50} > 2000 mg/kg

Chronic Effects:
No data available on this formulation. In studies with laboratory animals, Permethrin Technical did not cause teratogenicity or reproductive toxicity. 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.

12. ECOLOGICAL INFORMATION

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

Permethrin is slightly toxic to birds and oral LD50 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.

Do not contaminate sewers, drains, dams, creeks or any other waterways with product or the used container.

Environmental Fate:
Permethrin is rapidly degraded in sunlight (T½ <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, 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 bio-concentration and accumulation in the environment is low.

13. DISPOSAL CONSIDERATIONS

Product Disposal:
Dispose of product only by using according to label or using an approved waste disposal contractor. If this material as supplied becomes a waste care should be taken to ensure compliance with national and local authorities. It is the responsibility of the waste generator to determine the toxicity and physical properties of the waste generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Do not dispose of via municipal sewers, drains, natural streams or rivers.

Packaging Disposal:
Empty packaging should be taken for recycling, recovery or disposal through a suitably qualified or licensed contractor. Care should be taken to ensure compliance with national and local authorities. Packaging may still contain product residue that may be harmful. Incinerate via approved incinerators or crush and bury in an approved landfill. Ensure that empty packaging is managed in accordance with Dangerous Goods and HSNO regulations.

14. TRANSPORT INFORMATION

UN number:	UN 3077
Class or Division:	Class 9 (Miscellaneous Dangerous Goods)
Sub Class:	N/A
Packing Group:	Packing Group III
Marine Pollutant:	Permex Insect Dust is a Marine Pollutant according to International Maritime Dangerous Goods (IMDG) Code and the International Air transport Association (IATA).
Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Contains 2.5% Permethrin
Other information:	N/A

15. REGULATORY INFORMATION

EPA Approval Number: HSR000272
AsureQuality: Approved type B and C (food, beverage and dairy factories)

See also section 2, 3, 8 and 11 for applicable tolerable exposure limits.

16. OTHER INFORMATION

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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