MATERIAL SAFETY DATA SHEET

Date of Issue: June 2012
MSDS No. FMC/DRAGDUST/3

SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: Dragnet® Dust Insecticidal Powder – Industrial Strength

Other Names: Dragnet, permethrin, permethrin 25:75.
Use: Broad spectrum insecticide and termiticide.
Company: FMC Australasia Pty Ltd.
Address: 5 Palmer Place, Murarrie Qld 4172
Telephone Number: 07 3908 9222 **Fax Number:** 07 3908 9221
Emergency Telephone Number: 1800 033 111 (All hours - Australia wide).

SECTION 2 HAZARDS IDENTIFICATION

Classified as hazardous according to criteria of Safe Work Australia.
Not classified as a Dangerous Good according to the ADG Code.

Risk phrases:	R43	May cause sensitisation by skin contact.
Safety Phrases:	S2	Keep out of reach of children.
	S13	Keep away from food, drink and animal feed stuffs.
	S24/25	Avoid contact with eyes and skin.
	S36/37	Wear suitable protective clothing and gloves.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

CHEMICAL	*CAS NUMBER*	*PROPORTION*
Permethrin 40:60	52645-53-1	2%
Talc	14807-96-6	> 80%
Quartz (Crystaline silica)	14808-60-7	< 1%
Other ingredients determined to be non-hazardous	-	1 - 10%

SECTION 4 FIRST AID MEASURES

FIRST AID

Swallowed: If poisoning occurs, contact a doctor or Poisons Information Centre, phone 13 11 26. Thoroughly rinse mouth with water. Dilute by giving 1 or 2 glasses of water. Seek medical advice.

Eye: If in eyes, hold eyes open and flush gently with water for at least 15 minutes. If irritation occurs and persists, obtain medical attention.

Skin: If on skin or clothing, remove any contaminated clothing at once, and wash skin thoroughly with soap and water. See a doctor if irritation persists.

Inhaled: Remove to fresh air. If breathing discomfort occurs, contact a medical doctor.

Advice to Doctors: The signs and symptoms of poisoning with permethrin are not very pronounced and are likely to consist of hypersensitivity type reactions. There is no specific antidote to permethrin. Symptomatic and supportive treatment is indicated.

SECTION 5 FIRE FIGHTING MEASURES

Specific Hazard: Product is not flammable.
Extinguishing media: Extinguish surrounding fire using appropriate extinguishing media. Do not use water jet. If waterspray is used, contain all runoff.
Hazards from combustion products: When exposed to fire or extreme heat will emit toxic fumes such as carbon monoxide, carbon dioxide, hydrogen chloride, chlorine, fluorine and hydrogen fluoride etc.
Precautions for fire-fighters and special protective equipment: Isolate fire area. Evacuate downwind. Wear full protective clothing and self-contained breathing apparatus. Do not breathe or contact smoke, gases or vapours generated.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Emergency procedures: Isolate and post spill area. Keep out unprotected persons and animals. Wear prescribed protective clothing and equipment.

Spills: In the case of spillage, contain spilled material and avoid spreading dust. Dispose of waste according to the Australian Standard 2507 - Storage and Handling of Pesticides. Keep material out of streams and sewers. Vacuum, shovel or pump waste into an approved drum. Label for contents. Dispose of drummed wastes, including decontamination solution, in accordance with the requirements of Local or State Waste Management Authorities.

Material and methods for containment and cleanup procedures: To clean spill area, tools and equipment, wash with a solution of soap, water and acetic acid/vinegar. Follow this with a neutralisation step of washing the area with a bleach or caustic soda ash solution. Finally, wash with a strong soap and water solution. Absorb, as above, any excess liquid and add both solutions to the drums of waste already collected.

Do NOT allow spilled product or wash solution to enter sewers, drains, dams, creeks or any other waterways.

SECTION 7 HANDLING AND STORAGE

Precautions for Safe Handling: Ensure containers are kept closed until using product. Avoid skin and eye contact and breathing dust. When opening the container and using the product wear rubber gloves and a disposable dust mask. After each days use wash gloves and contaminated clothing. Wash hands after use.

Conditions for Safe Storage: DO NOT store near (or allow to contact) fertilizers, fungicides or pesticides. Store in the closed, original container in a dry, cool, well-ventilated area out of direct sunlight.

Section 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

National Exposure Standards:
No exposure standard for Permethrin has been established by Safe Work Australia. However, the following exposure standards have been established:

Atmospheric Contaminant	Exposure Standard (TWA)	STEL
Talc (containing no asbestos fibres)	2.5 mg/m³	-
Quartz	0.1 mg/m³	-

TWA = Time Weighted Average *STEL = Short term Exposure level*

Biological Limit Values:
No biological limit allocated.

Engineering controls:
Use in well ventilated area only. Keep containers closed when not in use.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION (Continued)

Personal Protective equipment (PPE):

Work Clothing: Avoid contact with skin and eyes and do not inhale dust. When opening the container and using the product wear rubber gloves and a disposable dust mask.

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

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White Powder.
Odour:	No detectable odour.
Boiling point:	Not applicable.
Freezing point:	No data.
Bulk density:	No data.
pH:	No data.
Solubility in Water:	Insoluble - does not mix with water.
Flammability:	Not flammable.
Corrosive hazard:	Non corrosive.
Flashpoint (°C):	Not applicable.
Flammability Limits (%):	Not known.
Poisons Schedule:	Not scheduled

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability: Dragnet Dust is considered stable in ambient conditions.
Conditions to avoid: No particular conditions to avoid.
Incompatible materials: Strong oxidising agents.
Hazardous decomposition products: When the product is heated to high temperatures, thermal decomposition may generate toxic and noxious fumes.
Hazardous reactions: No particular reactions to avoid. Will not polymerise.

SECTION 11 TOXICOLOGICAL INFORMATION

Potential Health Effects:
Permethrin has low oral and inhalation toxicity. Permethrin has been reviewed in the Australian Pesticides and Veterinary Medicine Authority (APVMA) program for agricultural and veterinary chemicals and classified as an irritant when present at concentrations such as those found in this product, and may cause sensitisation by skin contact.

The talc used in this formulation contains no asbestos fibre but may be irritating to the eyes and respiratory system.

Acute

Swallowed:	This product has low oral toxicity.
Eye:	This product is a mild irritant if dust enters the eyes.
Skin:	Mildly irritating. Avoid contact with skin. This product may cause sensitisation by skin contact. These sensations are reversible and usually subside within 12 hours.
Inhaled:	Dust is harmful if inhaled with effects similar to those observed if swallowed. This product may cause respiratory irritation if inhaled.

Chronic: No data available on this formulation. Permethrin is not known to be carcinogenic, genotoxic, teratogenic or mutagenic. Permethrin is efficiently metabolized by mammalian livers. Breakdown products, or metabolites of Permethrin are quickly excreted and do not persist significantly in body tissues. Permethrin may persist in fatty tissues, with half-lives of 4 to 5 days in brain and body fat.

SECTION 12 ECOLOGICAL INFORMATION

Physical/Environmental Properties: Permethrin is of low to moderate persistence in the soil environment, with reported half-lives of 30 - 38 days. Permethrin is readily degraded in most soils except organic types. Soil microorganisms play a large role in the degradation of Permethrin in the soil and it has also been observed that the availability of sodium and phosphorous decreases when Permethrin is added to the soil. Permethrin is tightly bound by soils, especially by organic matter. Very little leaching of Permethrin has been reported. It is not very mobile in a wide range of soil types. Because Permethrin binds very strongly to soil particles and is nearly insoluble in water, it is not expected to leach or to contaminate groundwater.

Environmental Toxicology: Permethrin is practically non-toxic to birds. LD_{50} = 9900 mg/kg mallard ducks, >13,500 mg/kg in pheasants, and >15,500 mg/kg in Japanese quail. Permethrin is toxic to aquatic organisms. 48-hour LC_{50} = 0.0125 mg/L rainbow trout; 48-hour LC_{50} = 0.0018 mg/L bluegill sunfish and salmon. Toxic to daphnia magna 48 hour LC_{50} = 0.006 mg/L. Bioconcentration factor for Permethrin in bluefish is 715 and 703 in catfish. This indicates that permethrin has a low to moderate potential to accumulate in these fish. Permethrin is extremely toxic to bees. Severe losses may be expected if bees are present at treatment time, or within a day thereafter. Permethrin is also toxic to some wildlife. It should not be applied or allowed to drift, to crops or weeds in which active foraging takes place.

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal: Label all recovered material for contents. Dispose of drummed wastes, including decontamination solution, in accordance with the requirements of Local or State Waste Management Authorities.

Dangerous to Fish and Crustaceans: Do NOT allow spilled product or wash solution to enter sewers, drains, dams, creeks or any other waterways.

Disposal of empty containers: Triple or preferably pressure rinse containers before disposal. Do not dispose of unused chemicals on-site. If recycling, replace lid and return containers to recycler or designated collection point. If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If not available bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, vegetation and roots, in compliance with relevant Local, State or Territory government regulations. Empty containers and product should not be burnt.

SECTION 14 TRANSPORT INFORMATION

Road & Rail Transport: Dragnet Dust is exempt from classification as a Dangerous Good in packs less than 3,000 kg under the Australian Code for the Transport of Dangerous Goods by Road and Rail. For bulk shipments this product is a class 9, UN 3077, as per below

Marine and Air Transport: Dragnet Dust is classified as a Marine Pollutant according to International Maritime Dangerous Goods (IMDG) Code and the International Air transport Association (IATA). If transporting by sea or air the following Dangerous Goods Classification applies:-
UN 3077, Class 9 (Miscellaneous Dangerous Goods), Packing Group III, Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Contains 2% Permethrin). Hazchem code 2Z. Hazard Identification Number (HIN) 90.

SECTION 15 REGULATORY INFORMATION

Registered under the Agricultural and Veterinary Chemicals Code Act 1994, Product No. 52336.
Dragnet is a not a scheduled poison under the criteria of Standard for Uniform Scheduling of Medicines and Poisons (SUSMP).
Classified as a hazardous substance (Xi) according to criteria of Safe Work Australia.
Not classified as a Dangerous Good according to the ADG Code in packs less than 3,000 kg (7^{th} Ed).
Classified as a Dangerous Good according to the International Maritime Dangerous Goods (IMDG) Code and the International Air Transport Association (IATA).

SECTION 16 OTHER INFORMATION

Issue Date: 14 June 2012 **Reason for Update:** 5 year update.

Key to abbreviations and acronyms used in this MSDS:

Key to abbreviations and acronyms used in this MSDS:

ADG Code:	Australian Dangerous Goods Code (for the transport of Dangerous Goods by Road and Rail).
Carcinogen:	An agent which is responsible for the formation of a cancer.
Genotoxic:	Capable of causing damage to genetic material, such as DNA.
HSIS:	Hazardous Substances information System.
Lacrimation:	The production, secretion, and shedding of tears.
Lavage:	A general term referring to cleaning or rinsing.
Mutagen:	An agent capable of producing a mutation.
NOHSC:	National Occupational Health and Safety Commission.
Pneumonitis:	A general term that refers to inflammation of lung tissue.
PPE:	Personal protective equipment.
Teratogen:	An agent capable of causing abnormalities in a developing foetus.
TWA:	The Time Weighted Average airborne concentration over an eight-hour working day, for a five day working week over an entire working life.
Safe Work Australia:	Formally known as Australian Safety & Compensation Council (ASCC) which was formally known as the National Occupational Health & Safety Commission (NOHSC).

References

1. "Search Hazardous Substances". HSIS - Safe Work Australia website. (2012).
2. "Approved Criteria for Classifying Hazardous Substances" 3rd Ed. NOHSC Australia. [NOHSC:1008 (2004)]. October 2004.

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

End of MSDS