

SAFETY DATA SHEET



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Date of Issue: May 2020
SDS No. FMC/ASTRO/3

SECTION 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: ASTRO® AEROSOL RESIDUAL INSECTICIDE

Other Names: Permethrin
Use: Aerosol insecticide for use against Ants, Cockroaches, Fleas, Spiders and Silverfish.
NZ Supplier: Garrards Pty Ltd.
Address: Unit 4, 27b Cain Rd
Penrose, Auckland, New Zealand
Telephone: +64 9 526 5232
Fax Number: +64 9 526 4272

NZ Emergency Telephone: 0800 764 766 (National Poison Centre)

Manufacturer: FMC Australasia Pty Ltd.
Address: 12 Julius Avenue North Ryde NSW 2113 Australia.
Telephone Number: +61 2 98870900
Fax Number: +61 2 90070922
Emergency Telephone Number: 1800 033 111 (All hours - Australia wide).

SECTION 2 HAZARDS IDENTIFICATION

This substance is hazardous according to the *HSNO (Minimum Degrees of Hazard) Regulations 2001*

EPA Approval No: HSR100084

Pictograms:



Flammable aerosol Chronic Ecotoxic

Signal Word: DANGER

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
2.1.2A	H223	Extremely flammable aerosol	Category 1
6.5A	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.	Category 1
6.5B	H317	May cause allergic skin reaction	Category 1
6.9B	H373	May cause damage to through prolonged or repeated exposure.	Category 2
9.1A	H410	Very toxic to aquatic life with long lasting effects.	Category 1
9.4B	H441	Very toxic to terrestrial invertebrates.	-

SECTION 2 HAZARDS IDENTIFICATION (Continued)

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read label before use.
P210	Keep away from heat/sparks/open flames/hot surfaces: — No smoking.
P211	DO NOT spray on an open flame or other ignition source.
P251	Pressurized container: DO NOT pierce or burn, even after use.
P260	DO NOT breathe dust/fume/gas/mist/vapours/spray
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective clothing.

Response Code	Response Statement
P101	If medical advice is needed, have product container or label at hand.
P312	Call a POISON CENTER (0800) 766 764 or doctor/physician if you feel unwell.
P301 + P310	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P321	
P331	DO NOT induce vomiting.
P302 + P351+ P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304 + P341	IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.
P342 + P311	If experiencing respiratory symptoms, call a POISON CENTER or doctor/physician if you feel unwell.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.

Storage Code	Storage Statement
P405	Store locked up in the closed original container, in a cool well-ventilated room/area, out of direct sunlight and away from children, animals, food, feed stuffs, seed and fertilizers.
P410 + P412	Protect from sunlight. DO NOT expose to temperatures exceeding 50°C.

Disposal Code	Disposal Statement
P501	Keep out of reach of children. DO NOT store near naked flames or other sources of ignition. Flammable gas. DO NOT store near (or allow to contact) fertilizers, fungicides or pesticides. Store in the closed original container, in a cool well ventilated area, out of direct sunlight. Store in a locked room or place away from children, animals food and feed stuffs. Contents under pressure, DO NOT puncture or incinerate can. Recycle empty cans if a facility is available or place used can in household rubbish.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

CHEMICAL	CAS NUMBER	PROPORTION (WT %)
Permethrin	52645-53-1	1
Paraffinic Hydrocarbon	64742-88-7	10-30
Butylated hydroxytolulene	128-37-0	< 1
Other ingredients determined not to be hazardous	-	Balance

SECTION 4 FIRST AID MEASURES

FIRST AID

- Inhalation:** If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER (0800) 766 764 or doctor/physician.
- Skin:** Wash with plenty of soap and water. Remove and wash contaminated clothing before re-use. If skin irritation or rash occurs: Get medical advice/attention.
- Eye:** Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation occurs and persists, seek medical attention.
- Ingestion:** If swallowed, Rinse mouth. For advice, contact the National Poisons Centre 0800 POISON (0800 764 766) or call a doctor immediately.

SECTION 5 FIRE FIGHTING MEASURES

Flashpoint: Product is flammable gas. Contents are under pressure. Propellant is liquefied petroleum gas (LPG). Containers may 'rocket' or explode in heat of fire.

Extinguishing media: Foam, CO2 or dry chemical. Soft stream water fog if no alternatives. Contain all runoff.

Fire Fighting Instructions: Isolate fire area. Evacuate downwind. Wear full protective clothing and self-contained breathing apparatus. **DO NOT** breathe or contact smoke, gases or vapours generated. Fight fire from maximum distance or protected area. Cool cans using water spray and use caution when approaching containers.

Combustion products: On burning will emit toxic fumes of carbon monoxide, carbon dioxide, hydrogen chloride, chlorine etc.

Hazchem Code: 2YE

SECTION 6 ACCIDENTIAL RELEASE MEASURES

Spill precautions: Isolate and post spill area. Keep out unprotected persons and animals. Wear prescribed protective clothing and equipment as detailed in Section 8.

Spill clean-up: In the case of spillage, contain and absorb spilled material with absorbent material such as sand, clay or cat litter and 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.

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

Handling: Read label before use. Read safety data sheet before use. Beware: Deliberately sniffing or inhaling concentrated contents can be harmful or fatal. Remove or cover fish tanks before spraying. **DO NOT** spray directly on humans, pets, exposed foods, food utensils or food preparation surfaces. Ensure containers are kept closed until using product. Avoid skin and eye contact and breathing vapour.

Storage: Keep out of reach of children. **DO NOT** store near naked flames or other sources of ignition. Flammable gas. **DO NOT** store near (or allow to contact) fertilizers, fungicides or pesticides. Store in the closed original container, in a cool well ventilated area, out of direct sunlight. Store in a locked room or place away from children, animals food and feed stuffs. Contents under pressure, **DO NOT** puncture or incinerate can. Recycle empty cans if a facility is available or place used can in household rubbish.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Atmospheric Contaminant	Exposure Standard (TWA)	Proportion in Astro
	mg/m ³	%
Butylated hydroxytolulene	10	< 1

TWA = Time-Weight Average

Workplace Exposure Standard – Time Weighted Average (WES-TWA). *The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure.* Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). *The 15-minute average exposure standard.* Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply.

Biological Limit Values:

No biological limit allocated.

Engineering controls:

Use in well ventilated area only. Ventilate all transport vehicles prior to unloading. Use local exhaust at all process locations where spray may be emitted. Keep containers closed when not in use.

Personal Protective equipment (PPE):

General: For general use personal protective equipment should not be necessary. **DO NOT** spray in eyes or on skin.

Work Clothing: Wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length PVC or nitrile gloves and face shield or goggles.

Eye Protection: When using product, wear chemical protective goggles or face shield.

Respiratory Protection: If inhalation risk exists, wear a properly fitted half-face or full-face air-purifying respirator which is approved for pesticides (Australian Standards).

Gloves: Wear chemical protective gloves made of materials such as nitrile, Viton® brand or PVC when handling this product. Inspect regularly for leaks. Wash the outside of gloves with soap and water prior to removal.

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	Clear pale yellow liquid
Odour	Very aromatic hydrocarbon odour.
pH	Not applicable
Boiling Point	Not applicable
Freezing Point	Not applicable

Flash Point	-104 to -60° C (LPG).
Flammability	Flammable gas
Flammability Limits (%)	Not established
Vapour Pressure	Not applicable
Vapour Density	Not applicable
Specific Gravity	0.7 g/mL
Solubilities	Product suspends in water
Corrosivity	Not known to be corrosive.
Poisons Schedule	Product is not a scheduled poison

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability: Product is considered stable in ambient conditions for a period of at least 2 years after manufacture.

Conditions to avoid: Keep in a cool place. **DO NOT** expose to sources of ignition. This product is highly flammable. **DO NOT** use in confined spaces. **DO NOT** use close to ignition sources.

Incompatible materials: **DO NOT** store near corrosive substances.

Hazardous Decomposition products: When the product is heated to high temperatures, the active constituent will decompose and emit toxic fumes.

Hazardous reactions: Will not polymerise.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute Effects: Experience to date indicates that contact with permethrin may produce skin sensations such as numbing, burning or tingling. These sensations are reversible and usually subside within 12 hours. Large doses of permethrin ingested by laboratory animals produced signs symptoms such as diarrhoea, salivation, tremors and intermittent convulsions. Overexposure of animals to permethrin via inhalation has also produced hyperactivity and hypersensitivity.

Swallowed	Due to the high volatility of this product, this is unlikely to occur.
Skin	Mildly irritating. Avoid contact with skin. Liquid contact can cause freezing of tissue, resulting in an injury similar to a thermal burn.
Inhalation	Inhalation of spray or vapour may produce respiratory irritation and can result in headaches, dizziness and possibly nausea. Excessive exposure may cause unconsciousness, or even death, due to asphyxiation..
Eye	Severely irritating to the eyes

Chronic Effects: No data available on this formulation. In studies with laboratory animals, Permethrin Technical did not cause teratogenicity or reproductive toxicity. The overall results from a battery of genotoxicity studies indicate that permethrin is not considered to be genotoxic. Ames test results were negative. The potential for induction of oncogenicity is extremely low. Long term feeding studies in animals resulted in increased liver and kidney weights, induction of liver microsomal drug metabolising enzyme system, and histopathological changes to the lungs and liver.

Carcinogenicity	Not applicable.
Reproductive Toxicity	Not applicable.
Germ Cell Mutagenicity	Not applicable.
Aspiration	Not applicable.
STOT/SE	Not applicable.
STOT/RE	Not applicable.

Potential Health Effects:

Studies with laboratory animals have shown permethrin (the active ingredient in this product) to have low oral, dermal and inhalation toxicity. It is minimally irritating to the eyes and practically non-irritating to the skin. Permethrin is a skin sensitiser.

SECTION 12 | ECOLOGICAL INFORMATION

HSNO Classes: 9.1A = Very toxic to aquatic life with long lasting effects.
9.4B = Very toxic to terrestrial invertebrates.

Persistence and degradability	No data available
Bioaccumulation	No data available
Mobility in Soil	No data available
Other adverse effects	No data available

Environmental Toxicology: No data is available on Astro Aerosol Insecticide. The active ingredient, Permethrin is highly toxic to aquatic organisms. Marine species are often more sensitive than freshwater species. Permethrin is only slightly toxic to birds with acute oral LD50 > 3600 mg/kg.

Environmental Properties: No data is available on Astro Insecticide. The active ingredient, Permethrin, degrades at a moderate rate in soils. Permethrin is tightly bound in most soils (Koc = 86,000), with little potential for movement into soil or groundwater. Permethrin has a Log Pow of 6.1, but because of the ease with which biological systems degrade the molecule, the potential for bioaccumulation and accumulation in the environment is low.

SECTION 13 | DISPOSAL CONSIDERATIONS

Spills & Disposal: In the case of spillage, contain and absorb spilled material with absorbent material such as sand, clay or cat litter. Dispose of drummed wastes, including decontamination solution, in accordance with the requirements of Local or State Waste Management Authorities. **DO NOT** puncture, cut or weld containers. Vapours inside can may create an explosion hazard.

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

Disposal of empty, non-returnable containers: Keep out of reach of children. **DO NOT** store near naked flames or other sources of ignition. Flammable gas. **DO NOT** store near (or allow to contact) fertilizers, fungicides or pesticides. Store in the closed original container, in a cool well ventilated area, out of direct sunlight. Store in a locked room or place away from children, animals food and feed stuffs. Contents under pressure, **DO NOT** puncture or incinerate can. Recycle empty cans if a facility is available or place used can in household rubbish.

SECTION 14 | TRANSPORT INFORMATION

Transport: This product is classified as a Dangerous Good for land transport under NZS 5433: 2012.

Road, Air and Marine Transport

UN No: 1950
Packing Group N/A
D.G. Class 2.1.2
Proper Shipping Name: AEROSOLS

Marine Pollutant Yes
Hazchem 2YE

SECTION 15 REGULATORY INFORMATION

EPA Approval Code: HSR100084

HSNO Classification: 2.1.2A, 6.5A, 6.5B, 6.9B, 9.1A, 9.4B

HSNO Controls:

Trigger quantities for this substance:

	Trigger Quantity
Qualified Urban Pest Management Contractor	Yes – Any if: a) Applied in a wide dispersive manner b) Used by a commercial contractor.
Location Certificate	Not required
Tracking Trigger Quantities	Any Quantity
Signage Trigger Quantities	100 L (9.1A)
Emergency Response Plan	100 L (9.1A)
Secondary Containment	100 L (9.1)
Restriction of Use	See controls

SECTION 16 OTHER INFORMATION

Glossary

EC ₅₀	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
LC ₅₀	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD ₅₀	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
OSHA	American Occupational Safety and Health Administration.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
UEL	Upper Explosive Level
WES	Workplace Exposure Limit

1. HSNO Approved Code of Practice: Preparation of Safety Data Sheets, September 2006.
2. Hazardous Substances (Safety Data Sheets) Notice 2017.

Disclaimer

This document has been issued by TCC (NZ) Ltd and serves as their Safety Data Sheet ('SDS'). It is based on information concerning the product which has been provided to TCC (NZ) Ltd or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer. While TCC (NZ) have taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, TCC (NZ) Ltd accept no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS

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Please contact the New Zealand distributor, if further information is required.

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