

# SAFETY DATA SHEET

## GRAINMASTER SUPERSMOKE



### 1: Identification of the Substance and Supplier

Product Name	GRAINMASTER SUPERSMOKE
Recommended Use	Insecticide
Company Details	Orion AgriScience Ltd Unit 1, 15 Sir Gil Simpson Drive, Harewood, Christchurch, 8053 PO Box 39 071, Harewood, Christchurch, 8545 www.orionagriscience.co.nz
Web Address	www.orionagriscience.co.nz
Email Address	orders@orionagriscience.co.nz
Telephone Number	(03) 928 2386 (office hours), 0800 674 6627 (free phone)
Emergency Telephone	0800 CHEMCALL (0800 243 622) (24 hours)
National Poison Centre	0800 POISON (0800 764 766) (24 hours)
Date of Issue/Revision	October 2015

### 2: Hazards Identification

#### Hazard Pictograms



#### Priority Identifiers:

Harmful, Ecotoxic, Keep Out of Reach of Children

#### HSNO Classes:

#### Secondary Identifiers:

6.1D	May be harmful if swallowed, inhaled or absorbed through the skin
6.3B	May cause mild skin irritation
6.4A	May cause eye irritation
6.8B	May cause reproductive/development damage from repeated exposure
6.9A	May cause organ damage from repeated exposure at high doses. May cause neurological symptoms (See 'Symptoms of Poisoning' below) from single or repeated exposure at high doses
9.1A	Very toxic to aquatic organisms
9.2D	Harmful to the soil environment
9.3B	Toxic to terrestrial vertebrates
9.4A	Very toxic to terrestrial invertebrates

### 3: Composition/ Information on Ingredients

Ingredient	CAS No	Content (% w/w)
Pirimiphos-methyl (active ingredient)	29232-93-7	10
Deltamethrin (active ingredient)	52918-63-5	5
Potassium chlorate	3811-04-9	10 - 30
Talc	14807-96-6	30 - 60
Other ingredients	Proprietary	Remainder

### 4: First Aid Measures

Skin Contact	In case of contact with canister contents, immediately wash affected area with soap and water. Seek medical advice if irritation persists. Wash contaminated clothing before reuse.
Eye Contact	In case of contact with canister contents, hold eyes open and rinse with water for at least 15 minutes. Remove contact lenses if easy to do so. Seek medical advice immediately.
Ingestion	Do not induce vomiting. Seek medical advice immediately.
Inhalation	Immediately move to fresh air and rest. Maintain half upright position if breathing is difficult. Seek medical advice immediately.
Workplace Facilities	Hand wash facility. Eye wash facility.
Advice to Doctor	Pirimiphos-methyl is an organophosphorus insecticide, which inhibits cholinesterase activity, and interferes in nerve pulse transmission. On set of symptoms may be delayed for several hours. Atropine is the specific antidote and may be given immediately by qualified staff, at a level of 2 - 5mg (intravenously or intramuscularly), every 20 minutes until atropinisation occurs. Considerable amounts of atropine may be necessary. Atropine must NOT be given to cyanosed

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National Poison Centre	<p>patients; administer oxygen first. Do NOT use opiates or barbiturates. If convulsions occur, administer diazepam (10mg intravenously). Take venous blood sample for determination of blood cholinesterase activity. Cholinesterase reactivators (Pralidoxime) should, if possible, be given at the same time as atropine. They are not effective after 24 hours post exposure and are not substitutes for atropine. Pralidoxime should be administered at: Mild poisoning: 1g in 2 - 3ml water (intramuscularly), Severe poisoning: 2g in 30ml water (intravenously). Following ingestion, adsorbents such as charcoal may be of value.</p> <p>0800 POISON (0800 764 766) (24 hours)</p>
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### 5: Fire-Fighting Measures

Fire/Explosion Hazard	Highly combustible material. Ignites readily. Contains an oxidiser (potassium chlorate). As with many dusts, an explosive air/dust mixture may be formed if rough handling liberates dust in enclosed or poorly ventilated areas
HAZCHEM Code	2Z
ERP Guide No	47
Extinguishing Media	Water spray, foam, dry chemical or CO2. Avoid water jet.
Fire Fighting Instructions	During a fire, toxic fumes may be emitted. Wear self-contained breathing apparatus. Contain runoff.

### 6: Accidental Release Measures

Exclude non-essential people from the area. Wear protective clothing as described in section 8. If canisters have split, wear chemical resistant gloves (PVC, nitrile or neoprene). Do not inhale dust. Moisten to prevent dusting, and carefully sweep up. If dust is generated, wear a respirator (organic vapour and particulate matter). Place in a waste container. Dispose of safely to a suitable landfill.

### 7: Storage, Handling and Use

Storage	Keep out of reach of children. Store in a secure, cool, dry and well ventilated area. Do not store for prolonged periods in direct sunlight.
Handling and Use	Keep out of reach of children. Avoid contact with eyes and skin. Avoid inhalation of dust or smoke. Wear protective clothing as described in section 8. Do not eat, drink or smoke while using. Evacuate all people and animals. Secure the treatment area, and display a warning notice at each entry point. Do not use in flammable or explosive environments. When igniting, do not place on combustible surfaces, or near to combustible materials. Keep exit door open whilst generators are being lit, and close on exiting treatment area. Close all other doors, ventilators, etc. before treatment. Keep persons out of treated areas for at least 27 hours after treatment. Ventilate thoroughly for at least 3 hours before re-entry. Wear gloves when handling used canisters. For use in grain stores or silos only. Do not use where food is exposed, or where dairy or meat products are processed, packed or stored. Wash hands and face after use. Wash protective clothing after use.
Approved Handler	Required.
Tracking	Not required.
Signage	Signs must be posted at every access point to the treatment area stating an application is being carried out using a substance that is toxic to people; access is not permitted unless appropriate protective equipment is worn; details of the required protective equipment required to be worn for entry, the person in charge; the date of the application; and the time/date of the expiry of the REI. Signs must be removed within 72 hours of the end of the REI. Signs must be in compliance with the Hazardous Substances (Identification) Regulations 2001.
Record Keeping	Record of use must be kept where members of the public may lawfully be present, or where smoke is likely to leave the treatment area.
REI	27 hours (which includes a minimum of 3 hours ventilation)
Site Requirements under the HSNO Act 1996 and HSNO Regulations:	<ul style="list-style-type: none"> <li>• A location test certificate is not required</li> <li>• A hazardous atmosphere zone is not required</li> <li>• Fire extinguishers are not required</li> <li>• Signage is required for 100 kg or more</li> <li>• Emergency information is required for 0.5 kg or more</li> <li>• An emergency plan is required for more than 100 kg</li> <li>• Secondary containment is not required</li> <li>• Separation/Segregation from incompatible substances (classes 1, 2, 3.2, 4 and 5) not is required.</li> </ul>
Additional Requirements	All aspects of storage, handling, use, disposal and record keeping must be in accordance with NZS 8409:2004 'Management of Agrichemicals', and relevant local and regional council plans.

### 8: Exposure Control / Personal Protection

Tolerable Exposure Limit	None established.
Workplace Exposure Standards	<p><b>Product</b> – None established (Use lowest practicable level).</p> <p><b>Active ingredients</b> – None established (Use lowest practicable level).</p> <p><b>Excipients</b> – Talc 2 mg/m3 respirable dust.</p>
Engineering Controls	Not applicable.
Personal Protection:	
Eye	Safety glasses/goggles when igniting.

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Skin	Cotton overalls snugly fitting at the neck, wrist and ankle, covered footwear. Wear gloves (barrier multilayer, nitrile, neoprene) when handling used canisters.
Respiratory	Not required where smoke is not inhaled. Otherwise, or where entering treated area within the REI, a respirator (organic vapour and particulate matter) is required.

### 9: Physical and Chemical Properties

Appearance	Grey/Off white powder in aluminium canister
Odour	Non specific
Boiling Point	Not applicable
Flash Point	Does not flash
Auto ignition Temperature	450 - 500°C
Explosive Limits	Not available. As with many dusts, an explosive air/dust mixture may be formed if rough handling liberates dust in enclosed or poorly ventilated areas
Density	Not available
Vapour Pressure	2 mPa (20°C) (pirimiphos-methyl), 1.24 x 10 <sup>-5</sup> mPa (25°C) (deltamethrin)
Vapour Density	Not volatile
Solubility in Water	Not soluble
pH	Not applicable
Oxidising Properties	Oxidizer (contains Potassium chlorate)
Corrosive Properties	Not a corrosive

### 10: Stability and Reactivity

Stability	Stable under normal conditions.
Incompatibility	Avoid mixing with strong acids, alkalis, and flammable materials.
Decomposition	Decomposition will not occur under normal conditions.
Dangerous Reactions	Products arising from combustion or thermal decomposition will be toxic.

### 11: Toxicological Information

This section describes effects which could occur if this material is not handled in accordance with this data sheet.

Swallowed	Excessive sweating, salivation, headache, weakness, faintness, nausea, diarrhoea, small pupils, blurred vision, muscle twitching, numbness of tongue and lips.
Eye	Irritation.
Skin	Irritation, numbness, tingling.
Inhalation	Irritation. Can be absorbed via the lungs (see symptoms under 'swallowed' above).
Acute Toxicity (Active Ingredient)	<p>Pirimiphos-methyl</p> <ul style="list-style-type: none"> <li>Acute Oral LD50 (Rat) 1414 mg/kg</li> <li>Acute Dermal LD50 (Rat) &gt; 2000 mg/kg</li> <li>Inhalation LC50 (4 hr) (Rat) &gt; 5.04 mg/l</li> </ul> <p>Deltamethrin</p> <ul style="list-style-type: none"> <li>Acute Oral LD50 (Rat) 31 mg/kg</li> <li>Acute Dermal LD50 (Rat) 700 mg/kg</li> <li>Inhalation LC50 (4 hr) (Rat) 0.79 mg/l</li> </ul>
Sensitisation Effects	None
Mutagenic Effects	None
Carcinogenic Effects	None
Reproductive Effects	May cause reproductive/development damage from repeated exposure
Teratogenic (Birth) Effects	May cause reproductive/development damage from repeated exposure
Systemic Effects	Pirimiphos-methyl interferes with cholinesterase, an enzyme essential for the correct functioning of the nervous system. In animal studies, repeated inhalation of deltamethrin was found to cause agitation, hypersensitivity, impaired locomotor activity, and reduced weight gain.

### 12: Ecotoxicity Information

This section describes effects which could occur if this material is not handled in accordance with this data sheet.

The following information is presented in respect of the active ingredient:

Ecotoxic Effects	<p>Pirimiphos-methyl</p> <ul style="list-style-type: none"> <li>Acute Oral LD50 (Bobwhite quail) 40 mg/kg</li> <li>LC50 (96 hr) (Rainbow trout) 0.64 mg/l</li> <li>LC50 (48 hr) (Daphnia) 0.21 µg/l</li> </ul>
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	<ul style="list-style-type: none"> <li>Algae EC50 1.0 mg/l</li> <li>Very toxic to bees</li> </ul>
	Deltamethrin
	<ul style="list-style-type: none"> <li>Acute Oral LD50 (Rat) 31 mg/kg</li> <li>LC50 (96 hr) (Rainbow trout) 0.25 µg/l</li> <li>EC50 (48 hr) (Daphnia) 0.56 µg/l</li> <li>Algae EC50 (72 hr) 9.1 mg/l</li> <li>Very toxic to bees</li> </ul>
Environmental Fate	Biodegradable. DT50 (soil) 3.5 – 30 days (Pirimiphos-methyl)
Partition Co-Efficient (Kow)	Biodegradable. DT50 (soil) 21 days (Deltamethrin)
Environmental Exposure Limit:	LogP = 4.2 (high) (Pirimiphos-methyl)
	LogP = 4.6 (high) (Deltamethrin)
	None established

### 13: Disposal Considerations

Product	Dispose of product by using it in accordance with the label. Do not burn. Waste product should be disposed of to a suitable landfill. For disposal of large quantities contact Orion AgriScience Ltd.
Container	Dispose of to a suitable landfill. Do not burn. Do not use packaging for any other purpose.

### 14: Transport Information

Dangerous Goods	
UN Number	3077
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (PIRIMIPHOS-METHYL 10%, DELTAMETHRIN 5%)
Class	9
Subsidiary Class	None
Packing Group	III
Additional Information	MARINE POLLUTANT
MTQ (Non-Commercial)	1000 kg
Passenger Service Vehicle	Maximum quantity 3 kg

### 15: Regulatory

HSNO Approval No	HSR101001
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### 16: Other Information

Glossary	
Approved Handler	For some hazardous substances, persons storing, handling and using must be trained and certified
DT50	Time (days) for 50% reduction in concentration
EC50	Concentration required to produce an effect in 50% of organisms
Environmental Exposure Limit	Maximum concentration limit of a substance in an environmental medium, e.g., water, soil.
ERP Guide	Dangerous Goods – Initial Emergency Response Guide SNZ HB 76:2008
HAZCHEM Code	Emergency action code for emergency services
HSNO	Hazardous Substances and New Organisms
LC50	Concentration that will kill 50% of organisms
LD50	Dose that will kill 50% or organisms
MTQ	Maximum Transport Quantity. The maximum amount of dangerous goods that can be transported by road by the user
Partition Co-Efficient Kow	Ratio of concentration between octanol and water. Values are given as the log value. A high value indicates a substance may bioaccumulate
Record Keeping	The record must include the name of the product, date and time of application, the hazard classification, the amount of product used, the location of the treatment area, the wind speed and direction if there is drift off site, and the users name and address. Records must be kept for a minimum of 3 years.
REI	Restricted Entry Interval – The length of time after application before entry into the treated area is permitted without the use of protective equipment.
Safety Note	A brief document providing hazardous substance information for transport, storage and emergency management

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STEL	purposes
Tolerable Exposure Limit	Short term exposure level
Tracking	Maximum concentration limit of a substance above which persons must not be exposed
TWA	For some hazardous substances, a record must be kept of the transport, storage, sale and use of the product
Workplace Exposure Standard	Time weighted average
Wide Dispersive Use	An occupational health standard limiting concentrations of specified substances to which persons are exposed
	A method of application involving equipment such as boom sprayers, mist blowers, vine sprayers, row sprayers, etc., as well as aerial application. Hand gunning within 30m of a property boundary is also classed as wide dispersive use. Knapsack sprayers are not classed as wide dispersive use
Please Note	

Users must ensure that the most up to date version of this safety data sheet is used.

This Safety Data Sheet summarises information on this product, and how to safely handle and use the product. Each user should familiarise themselves with the product label, Safety Note and Safety Data Sheet, and consider the information in the context of how the product will be handled and used, including in conjunction with other products. Orion AgriScience Ltd assumes no responsibility for the accuracy, completeness or suitability of this information. The user is responsible for determining the suitability and accuracy of this information for their particular purposes.

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

Always read the product label before use.