

### 1: Identification of the Substance and Supplier

<b>Product Name</b>	<b>ACTELLIC 50EC</b>
<b>Recommended Use</b>	Insecticide
<b>Company Details</b>	Orion AgriScience Ltd Unit 1, 15 Sir Gil Simpson Drive, Harewood, Christchurch, 8053 PO Box 39 071, Harewood, Christchurch, 8545
<b>Web Address</b>	www.orionagriscience.co.nz
<b>Email Address</b>	orders@orionagriscience.co.nz
<b>Telephone Number</b>	(03) 928 2386 (office hours), 0800 674 6627 (free phone)
<b>Emergency Telephone</b>	0800 CHEMCALL (0800 243 622) (24 hours)
<b>National Poison Centre</b>	0800 POISON (0800 764 766) (24 hours)
<b>Date of Issue/Revision</b>	July 2015

### 2: Hazards Identification

#### Hazard Pictograms



#### Priority Identifiers:

**Flammable Liquid, Harmful, Ecotoxic, Keep Out of Reach of Children**

#### HSNO Classes:

#### Secondary Identifiers:

3.1C	Flammable liquid and vapour
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 ingestion
6.9A	May cause neurological symptoms from repeated ingestion at high doses
9.1A	Very toxic to aquatic organisms
9.3A	Very toxic to terrestrial vertebrates
9.4A	Very toxic to terrestrial invertebrates

### 3: Composition/ Information on Ingredients

Ingredient	CAS No	Content (% w/v)
Pirimiphos-methyl (active ingredient)	29232-93-7	50
Hydrocarbon solvent	64742-94-5	30 – 60
Isobutanol	78-83-1	<10
Other ingredients, surfactants, etc	Proprietary	Remainder

### 4: First Aid Measures

<b>Skin Contact</b>	In case of contact, immediately wash affected area with soap and water. Wash contaminated clothing before reuse. Seek medical advice if irritation persists.
<b>Eye Contact</b>	Hold eyes open and rinse with water for at least 15 minutes. Remove contact lenses if easy to do so. Seek medical advice immediately.
<b>Ingestion</b>	Do not induce vomiting. Keep strictly at rest as continued movement enhances toxic effects. Seek medical advice
<b>Inhalation</b>	Immediately move to fresh air and rest. Maintain half upright position if breathing is difficult. Seek medical advice immediately.
<b>Workplace Facilities</b>	Hand wash facility. Eye wash facility.
<b>Advice to Doctor</b>	Actellic 50EC 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 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. If gastric lavage or emesis is considered necessary, inhalation of hydrocarbons must be prevented. Hydrocarbon aspiration may complicate poisonings involving ingestion.

National Poison Centre

0800 POISON (0800 764 766) (24 hours)

### 5: Fire-Fighting Measures

<b>Fire/Explosion Hazard</b>	Flammable liquid and vapour. Explosive concentrations of vapours may form in enclosed or poorly ventilated
<b>HAZCHEM Code</b>	3Y
<b>ERP Guide No</b>	14
<b>Extinguishing Media</b>	Water spray, foam, dry chemical or CO2. Avoid water jet.
<b>Fire Fighting Instructions</b>	During a fire, toxic fumes may be emitted. Wear self-contained breathing apparatus. Contain runoff.

### 6: Accidental Release Measures

Caution: Floors may be slippery if wet. Eliminate all ignition sources and naked lights. Use non-sparking equipment. Leave and/or avoid entering confined spaces. When dealing with spills wear personal protective clothing and equipment as described in section 8. Respiratory protection (with organic vapour cartridge) required for any spill other than minor. Prevent further spillage or leakage. Keep bystanders away. Absorb spillage with inert material such as spill kit, sand or cat litter. Collect and place in a sealable container for disposal. Wash down affected area with water and detergent. Absorb and collect washings for disposal. Dispose of safely to a suitable landfill

### 7: Storage, Handling and Use

<b>Storage</b>	Keep out of reach of children. Do not store near heat, flame or other source of ignition. Store in the original, tightly closed container, in a secure and well-ventilated area away from feed or foodstuffs. Do not store for prolonged periods in direct sunlight.
<b>Handling and Use</b>	Keep out of reach of children. Avoid contact with eyes and skin. Avoid inhalation of vapour or spray mist. Avoid handling, mixing or use of the product or container near heat, flame or other source of ignition. Heavy vapours can flow along surfaces to ignition sources and flash back. Take precautions against static discharge. Always use diluted in water. Never use neat. Concentration of Actellic EC should not exceed 8% in spray solution. Mix in a well ventilated area. Do not use near air vents or ducts. When mixing or applying, wear protective clothing as described in section 8. Do not eat, drink or smoke while using. Do not apply indoors using hand gun equipment. Wash hands and face after use. Wash protective clothing after use.
<b>Approved Handler</b>	Required if applied in a wide dispersive manner, or by a commercial contractor.
<b>Tracking</b>	Not required.
<b>Notification</b>	For wide dispersive use, written notification must be given to any persons likely to be affected – this includes occupiers and owners immediately neighbouring the application area. Notification must be made 2 days – 4 weeks ahead of the application. Notification must include the location of the application area; the proposed date and approximate duration of the application; the steps to be taken by those notified to avoid exposure (e.g., staying indoors, closing windows and doors, moving washing indoors, disconnecting roof water supply, etc.); and the notifiers details (including name and phone number for immediate contact during application).
<b>Signage</b>	Required for indoor applications. Signs must be posted at every access point to the application 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 person in charge; the date of

<b>Record Keeping</b>	the application; and the time/date of the expiry of the REI. Signs must be in compliance with the Hazardous Substances (Identification) Regulations 2001.
<b>REI</b>	Record of use must be kept if applied where members of the public may be lawfully present, or where it is likely to enter air or water and leave that place. A record must be made which details the measures taken to avoid spray drift.
<b>Site Requirements under the HSNO Act 1996 and HSNO Regulations:</b>	12 hours
<b>Additional Requirements</b>	<ul style="list-style-type: none"> <li>• A location test certificate is required for more than 500 litres (closed containers &gt; 5 litres size), 1500 litres (closed containers ≤ 5 litres size), or 250 litres (open containers)</li> <li>• A hazardous atmosphere zone is required for more than 100 litres (closed containers), 25 litres (decanting), 5 litres (container open occasionally, or 1 litre (container continuously open)</li> <li>• Fire extinguishers are required for more than 500 litres (2 fire extinguishers)</li> <li>• Signage is required for 100 litres or more</li> <li>• Emergency information is required for 0.1 litres or more</li> <li>• An emergency plan is required for more than 100 litres</li> <li>• Secondary containment is required for more than 100 litres</li> <li>• Separation/Segregation from incompatible substances (classes 1, 2, 3.2, 4 and 5) is required.</li> </ul> <p>Very toxic to bees – Spray must not contact plants in flower if they are likely to be visited by bees. 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.</p>

### 8: Exposure Control / Personal Protection

<b>Tolerable Exposure Limit</b>	None established.
<b>Workplace Exposure Standards</b>	<p><b>Product</b> – None established (Use lowest practicable level).</p> <p><b>Active ingredient</b> – None established (Use lowest practicable level). [Recommendation: Pirimiphos-methyl 3 mg/m<sup>3</sup> (8hr TWA)]</p> <p><b>Excipients</b> – None established (Use lowest practicable level). Recommendation: Hydrocarbon solvent 15 ppm (8 hr TWA) 30 ppm (15 min STEL)</p>
<b>Engineering Controls</b>	Not practicable given nature of use.
<b>Personal Protection:</b>	
<b>Eye</b>	Safety glasses/goggles (or full face respirator incorporating visor) when mixing or applying.
<b>Skin</b>	Cotton overalls snugly fitting at the neck, wrist and ankle, chemical resistant boots and gloves (barrier multilayer, nitrile, neoprene). For overhead applications, use head covering (coveralls with hood recommended).
<b>Respiratory</b>	Respirator (organic vapour and particulate matter) when mixing or applying.
	Regular users in direct contact (mixing and application) should undergo biological monitoring of cholinesterase activity. Consult with your GP or Occupational Health Adviser.

### 9: Physical and Chemical Properties

<b>Appearance</b>	Amber Liquid
<b>Odour</b>	Aromatic solvent
<b>Boiling Point</b>	Not available
<b>Flash Point</b>	49°C (closed cup method)
<b>Auto ignition Temperature</b>	Not available
<b>Explosive Limits</b>	Not available. May form explosive mixture in enclosed or poorly ventilated areas
<b>Density</b>	1.033 g/mL (approx)
<b>Vapour Pressure</b>	Not available
<b>Vapour Density</b>	> 1 (heavier than air)
<b>Solubility in Water</b>	Emulsifiable
<b>pH</b>	7.1 (1% emulsion) (approx)
<b>Oxidising Properties</b>	Not an oxidizer
<b>Corrosive Properties</b>	Not a corrosive

### 10: Stability and Reactivity

<b>Stability</b>	Stable under normal conditions.
<b>Incompatibility</b>	Avoid mixing with strong acids, alkalis, and oxidizing agents such as chlorine compounds, ammonium nitrate, etc.
<b>Decomposition</b>	Decomposition will not occur under normal conditions.
<b>Dangerous Reactions</b>	Products arising from combustion or thermal decomposition may be toxic, corrosive or flammable.

### 11: Toxicological Information

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

<b>Swallowed</b>	Excessive sweating, salivation, headache, weakness, faintness, nausea, diarrhoea, small pupils, blurred vision, muscle twitching. The solvent in this product may cause bronchopneumonia or pulmonary oedema if aspirated into the lungs from ingestion or from vomiting.
<b>Eye</b>	Mild irritation. May cause constriction of the pupil.
<b>Skin</b>	Mild irritation. Prolonged or repeated contact may result in degreasing of the skin and dermatitis. Can be absorbed via the skin (see symptoms under 'swallowed' above).
<b>Inhalation</b>	Irritation, headache, dizziness, nausea, vomiting.

**Note: Symptoms may be delayed for up to 24 hours or more following exposure**

<b>Acute Toxicity (Active Ingredient)</b>	<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>
<b>Sensitisation Effects</b>	None
<b>Mutagenic Effects</b>	None
<b>Carcinogenic Effects</b>	None
<b>Reproductive Effects</b>	Suspected
<b>Teratogenic (Birth) Effects</b>	Suspected
<b>Systemic Effects</b>	Interferes with cholinesterase, an enzyme essential for the correct functioning of the nervous system.

### 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:

<b>Ecotoxic Effects</b>	<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> <li>Algae EC50 1.0 mg/l</li> <li>Toxic to bees.</li> </ul>
<b>Environmental Fate</b>	Biodegradable. DT50 (soil) 3.5 – 30 days.
<b>Partition Co-Efficient (Kow)</b>	LogP = 4.2 (high)
<b>Environmental Exposure Limit:</b>	None established.

### 13: Disposal Considerations

<b>Product</b>	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.
<b>Container</b>	Dispose of to a suitable landfill or agricultural recycling scheme. Do not burn. Do not use packaging for any other purpose.

### 14: Transport Information

Dangerous Goods	
UN Number	1993
Proper Shipping Name	FLAMMABLE LIQUID, N.O.S. (AROMATIC HYDROCARBON SOLVENT 36%, BUTANOL 2%)
Class	3
Subsidiary Class	None
Packing Group	III
Additional Information	ORGANOPHOSPHORUS INSECTICIDE (PIRIMIPHOS-METHYL 50%). MARINE POLLUTANT
MTQ (Non-Commercial)	250 litres
Passenger Service Vehicle	Maximum quantity 1 litre.

### 15: Regulatory

HSNO Approval No	HSR000196
ACVM Registration No	P3590

### 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% of 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	Includes a spray diary
REI	Restricted Entry Interval – The length of time after application before entry into the treated area is permitted without the use of protective equipment. For indoor environments, this time period commences once ventilation after treatment begins.
Safety Note	A brief document providing hazardous substance information for transport, storage and emergency management purposes
STEL	Short term exposure level
Tolerable Exposure Limit	Maximum concentration limit of a substance above which persons must not be exposed
Tracking	For some hazardous substances, a record must be kept of the transport, storage, sale and use of the product
TWA	Time weighted average
Workplace Exposure Standard	An occupational health standard limiting concentrations of specified substances to which persons are exposed
Wide Dispersive Use	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

# SAFETY DATA SHEET

## ACTELLIC 50EC



### 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.