

## SAFETY DATA SHEET

### Section 1: IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND SUPPLIER

<b>Product Name:</b>	<b>PIRIMOR 50</b>
<b>Design Code:</b>	A10788A
<b>Recommended Use:</b>	For aphid control in fruit, cereal and vegetable crops.
<b>Company Details:</b>	<b>Syngenta Crop Protection Limited</b>
<b>Address:</b>	<b>Tower II, Level 7, 110 Symonds Street Private Bag 92618, Symonds Street AUCKLAND NEW ZEALAND</b>
<b>Telephone number:</b>	<b>(weekdays) 09 - 306 1500</b>
<b>Emergency Telephone number:</b>	<b>(24 Hours) 0800 734 607</b>
<b>National Poisons &amp; Hazchem Information Centre :</b>	<b>0800 POISON (0800 764 766)</b>
<b>Date of Preparation:</b>	<b>12 January, 2015</b>

### Section 2: HAZARDS IDENTIFICATION

<b>Hazard classification:</b>	6.1C (oral), 6.1D (inhalation) 6.3B, 6.4A, 6.9B, 9.1A, 9.3A, 9.4B
<b>Priority Identifier:</b>	DANGER KEEP OUT OF REACH OF CHILDREN
<b>Secondary Identifiers:</b>	6.1C = Toxic if swallowed. 6.1D = Harmful if inhaled. 6.3B = May cause skin irritation. 6.4A = May cause eye irritation. 6.9B = May cause neurotoxicity (nervous system) damage from repeated oral exposure at high doses. 9.1A = Very toxic to aquatic organisms. 9.3A = Very toxic to terrestrial vertebrates. 9.4B = Toxic to terrestrial invertebrates.

### Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

<i>Pure Substance:</i>	
<b>Chemical Identity of pure substance:</b>	2-(dimethylamino)-5,6-pyrimidinyl dimethylcarbamate
<b>Common Name:</b>	Pirimicarb
<b>Synonyms:</b>	PP062
<b>CAS number:</b>	23103-98-2

<i>Mixture:</i>		
<b>Chemical Identity of ingredients:</b>		
<b>Ingredient</b>	<b>CAS no.</b>	<b>Content (% w/w)</b>
Pirimicarb (technical grade)	23103-98-2	50
butanedioic acid, sulfo-, 1,4-bis(2-ethylhexyl) ester, sodium salt	577-11-7	5-10
Talc	14807-96-6 546-93-0	20-30
other ingredients determined not to be hazardous	-	to 100%

## Section 4: FIRST AID MEASURES

### Necessary First Aid measures:

For advice contact the National Poisons Centre on 0800 POISON (0800 764 766) or a doctor immediately. Begin artificial respiration if the victim is not breathing. Use mouth to nose rather than mouth to mouth. Obtain medical attention.

Swallowed: If swallowed **DO NOT** induce vomiting. Rinse mouth and immediately contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor. This product contains a cholinesterase inhibitor.

Eye: If concentrate or spray solution enters the eyes rinse cautiously with water for several minutes, remove contact lenses if safe to do so, continue rinsing. If eye irritation persists get medical advice..

Skin: If skin contact occurs remove contaminated clothing and wash affected areas thoroughly with running water.

Inhaled: If inhaled move the victim to fresh air immediately and keep at rest in a position comfortable for breathing.

### Poisoning symptoms:

No case of human poisoning due to this product is on record. The poisoning symptoms observed for laboratory mammals were non-specific.

### Workplace facilities:

No specific facilities required. Standard emergency equipment must be available.

### Hygiene Practices:

Avoid contact with skin and eyes and inhalation of dust from concentrate or spray mist.

DO NOT eat, drink or smoke while using.

When mixing, loading or applying, or when entering an application site within the restricted entry period, wear full protective clothing, such as chemical resistant coveralls, chemical resistant gloves, chemical resistant footwear plus socks, protective eyewear and chemical resistant headgear for overhead exposures.

If clothing becomes contaminated with product, remove clothing immediately. Wash splashes of concentrate from skin or eyes immediately.

Remove protective clothing and wash hands and face thoroughly with soap and water before meals and after work.

Wash protective clothing daily after work. Contaminated clothing should not be allowed out of the workplace.

### Notes for Medical Personnel:

No specific antidote is available. If poisoning is suspected apply symptomatic therapy.

This product contains a cholinesterase inhibitor.

## Section 5: FIRE-FIGHTING MEASURES

<b>Type of Hazard:</b>	Not flammable
<b>Fire Hazard Properties:</b>	During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.
<b>Regulatory Requirements:</b>	not required
<b>Extinguishing Media and methods:</b>	Extinguishing media for small fires: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.  Extinguishing media for large fires: Alcohol-resistant foam or water spray DO NOT use a solid water stream as it may scatter and spread fire.  Cool closed containers exposed to fire with water spray.
<b>Hazchem Code:</b>	2X
<b>Recommended Protective Clothing:</b>	When fighting a major fire wear full protective clothing and self-contained breathing apparatus.

## Section 6: ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions:</b>	<b>Emergency Procedures:</b> Ensure suitable personal protection during removal of spillages. This means wearing eye protection, chemical resistant gloves, chemical resistant boots and overalls.
<b>Environmental Precautions:</b>	DO NOT allow run-off from fire fighting to enter drains or water courses.
<b>Procedure for spill:</b>	<ol style="list-style-type: none"><li>(1) Keep all bystanders away.</li><li>(2) Wear goggles, half face-piece respirator with combined dust and vapour cartridge, full length clothing and chemical resistant gloves.</li><li>(3) Reposition any leaking containers so as to minimise further leakage.</li><li>(4) Dam and absorb spill with an absorbent material (e.g. sand or soil).</li><li>(5) Shovel the absorbed spill into drums.</li><li>(6) Decontaminate the spill area with detergent and water and rinse with the smallest volume of water practicable.</li></ol>
<b>Procedure for Disposal:</b>	Disposal of the absorbed material will depend upon the extent of the spill. Contaminated material must be disposed of in accordance with all local authority requirements. It is suggested: <ul style="list-style-type: none"><li>• For quantities up to 50 kg of product bury in a secure approved landfill site.</li><li>• For quantities greater than 50 kg seek advice from the manufacturer (use emergency contact number below) before attempting disposal. Contain in a secure location until disposal method is established.</li></ul>

## Section 7: HANDLING AND STORAGE

<b><i>Handling:</i></b>	
<b>Precautions for safe handling:</b>	This material is capable of forming flammable dust clouds in air, which, if ignited, can produce a dust cloud explosion. Flames, hot surfaces, mechanical sparks and electrostatic discharges can serve as ignition sources for this material. Electrical equipment should be compatible with the flammability characteristics of this material. The flammability characteristics will be made worse if the material contains traces of flammable solvents or is handled in the presence of flammable solvents.
<b>Regulatory Requirements:</b>	This product must be tracked.
<b>Handling practices:</b>	Avoid contact with skin and eyes and inhalation of dust from concentrate or spray mist. DO NOT eat, drink or smoke while using. When mixing, loading or applying, or when entering an application site within the restricted entry period, wear full protective clothing, such as chemical resistant coveralls, chemical resistant gloves, chemical resistant footwear plus socks, protective eyewear and chemical resistant headgear for overhead exposures. If clothing becomes contaminated with product, remove clothing immediately. Wash splashes of concentrate from skin or eyes immediately. Remove protective clothing and wash hands and face thoroughly with soap and water before meals and after work. Wash protective clothing daily after work. Contaminated clothing should not be allowed out of the workplace.
<b>Approved Handlers:</b>	This product must be under the control of an Approved Handler
<b><i>Storage:</i></b>	
<b>Conditions for Safe Storage:</b>	Keep out of reach of children. Keep in original containers and tightly closed. Keep away from food, drink and animal feeding stuffs. Store in a cool, dry, well ventilated place and protect from sunlight.
<b>Store Site Requirements:</b>	Signage and secondary containment will be required at sites holding 100 kg or more of any product classified as 9.1A (eg PIRIMOR 50)
<b>Packaging:</b>	Store in original container, tightly closed, away from foodstuffs.

## Section 8: EXPOSURE CONTROL / PERSONAL PROTECTION

**ALWAYS READ AND FOLLOW THE LABEL INSTRUCTIONS AND WARNINGS**

<i>Workplace Exposure Guidelines:</i>																									
<b>Workplace Exposure Standards:</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 20%;">Components</th> <th style="width: 25%;">Exposure limits</th> <th style="width: 20%;">Type of exposure limit</th> <th style="width: 35%;">Source</th> </tr> </thead> <tbody> <tr> <td>Pirimicarb</td> <td>1 mg/m<sup>3</sup></td> <td>8 h TWA</td> <td>Syngenta</td> </tr> <tr> <td>Talc</td> <td>2 mg/m<sup>3</sup> (respirable dust)</td> <td>8 h TWA</td> <td>DFG</td> </tr> <tr> <td></td> <td>2 mg/m<sup>3</sup></td> <td>8 h TWA</td> <td>SUVA</td> </tr> <tr> <td></td> <td>1 mg/m<sup>3</sup></td> <td>8 h TWA</td> <td>UK HSE</td> </tr> <tr> <td></td> <td>2 mg/m<sup>3</sup></td> <td>8 h TWA</td> <td>ACGIH</td> </tr> </tbody> </table>	Components	Exposure limits	Type of exposure limit	Source	Pirimicarb	1 mg/m <sup>3</sup>	8 h TWA	Syngenta	Talc	2 mg/m <sup>3</sup> (respirable dust)	8 h TWA	DFG		2 mg/m <sup>3</sup>	8 h TWA	SUVA		1 mg/m <sup>3</sup>	8 h TWA	UK HSE		2 mg/m <sup>3</sup>	8 h TWA	ACGIH
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<b>Application in the workplace:</b>	Not required																								
<b>Exposure standards outside the workplace:</b>	Not required																								
<b>Engineering controls:</b>	<p>No special requirements. Product is used outdoors. Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated. The extent of these protection measures depends on the actual risks in use. If airborne mists or vapours are generated, use local exhaust ventilation controls. Assess exposure and use any additional measures to keep airborne levels below any relevant exposure limit.</p> <p>Follow precaution statements on the label and the use and safety directions in Code of Practice for the Management of Agrichemical NZS8409.</p>																								
<b>Personal Protection:</b>	Use only protective equipment bearing the mark of the Standards Association with Australia/ New Zealand. In case of heavy exposure, wear half face-piece respirator with combined dust and vapour cartridge, chemical resistant gloves and heavy duty cotton overalls.																								
<b>General Hygiene:</b>	Change work clothes daily. May irritate the eyes and skin. Avoid contact with eyes and skin. Do not inhale dust or spray mist. If product gets on skin immediately wash area with soap and water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.																								

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Blue green to green granules
<b>Odour:</b>	weak
<b>pH:</b>	7 - 11 at 1% w/v
<b>Melting Point:</b>	89°C
<b>Minimum ignition temperature:</b>	500°C
<b>Flammability (solid, gas):</b>	Not highly flammable
<b>Dust explosion class:</b>	Forms flammable dust clouds
<b>Minimum ignition energy:</b>	>1 J
<b>Oxidising properties:</b>	not oxidising
<b>Explosive properties:</b>	not explosive
<b>Density:</b>	>0.4-<0.6 g/mL
<b>Bulk density:</b>	0.4-0.6 g/cm <sup>3</sup>
<b>Solubility in other solvents:</b>	soluble in water
<b>Burning number:</b>	5 at 20°C 5 at 100°C

## Section 10: STABILITY AND REACTIVITY

<b>Stability of the Substance:</b>	Stable under standard conditions.
<b>Conditions to Avoid:</b>	None known
<b>Material to Avoid:</b>	Oxidising agents
<b>Hazardous decomposition products</b>	Combustion or thermal decomposition will evolve toxic and irritant vapours.
<b>Hazardous polymerisation</b>	Does not occur
<b>Specific Data</b>	not applicable

## Section 11: TOXICOLOGICAL INFORMATION

### HSNO Classifications:

- 6.1C = Toxic if swallowed.
- 6.1D = Harmful if inhaled.
- 6.3B = May cause skin irritation.
- 6.4A = may cause eye irritation.
- 6.9B = May cause neurotoxicity (nervous system) damage from repeated oral exposure at high doses.

### *Acute Effects (Undiluted product)*

Swallowed:	LD <sub>50</sub>	=379 mg/kg (rat)
Dermal absorption:	LD <sub>50</sub>	>1000 mg/kg (animal not available)
Inhaled:	LC <sub>50</sub> (4 h)	1.41 mg/L
<b><u>Irritation</u></b>		
Eye:	<b>IRRITANT</b> (rabbit)	
Skin:	<b>IRRITANT</b> (rabbit)	
<b><u>Sensitization</u></b>	<b>NOT A SENSITISER</b> (guinea pigs)	

### *Chronic / Long Term Effects (Active Ingredient)*

**Pirimicarb technical** has been extensively tested on laboratory mammals and in test-tube systems. An acute neurotoxicity study in the rat produced reversible signs of neurotoxicity at a single dose of 110 mg/kg. The NOEL was 40 mg/kg. In a 90-day study, reduced growth and food consumption was observed at 250 and 1000 ppm, but no neurological effects were noted. Not teratogenic in rats or rabbits. Not carcinogenic in chronic rat and mouse studies.

## Section 12: ENVIRONMENTAL INFORMATION

### HSNO Classifications:

- 9.1A = Very toxic to aquatic organisms.
- 9.3A = Very toxic to terrestrial vertebrates.
- 9.4B = Toxic to terrestrial invertebrates.

<b>Environmental Risk and Safety Phrases:</b>	Avoid contamination of any water supply with chemical or empty container
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The information presented below is for the active ingredient, pirimicarb. A thorough review of environmental information is not possible in this document.

<b>Ecotoxicity Effects</b>	
<b>Toxicity to Birds:</b>	LD <sub>50</sub> = 25-50 mg/kg (Poultry) LD <sub>50</sub> = 28.5 mg/kg (mallard ducks) LD <sub>50</sub> = 20.9 mg/kg (bobwhite quail)
<b>Acute toxicity to fish:</b>	LC <sub>50</sub> (96 h) = 79 mg/L (Rainbow trout) LC <sub>50</sub> (96 h) >100 mg/L (fathead minnow)
<b>Growth inhibition, Algae:</b>	EbC <sub>50</sub> (96 h)= 140 mg/L (green algae)
<b>Toxicity to aquatic Invertebrates:</b>	LC <sub>50</sub> (48h) = 14 µg/L (Daphnia magna (water flea)); 48 h
<b>Toxicity to soil dwelling organisms:</b>	LC <sub>50</sub> (14 days) = >60 mg/kg (earthworms)
<b>Toxicity to Bees:</b>	LD <sub>50</sub> (24h) oral = 4 µg/bee (technical); LD <sub>50</sub> (Contact) = 53 µg/bee (technica)

<b>Environmental Fate</b>	
The information presented here is for the active ingredient, pirimicarb.	
Stability in water:	Degradation half life: 36-55d. Pirimicarb is not persistent in water.
Stability in soil:	Degradation half life: 29-365 d. Pirimicarb is not persistent in soil.
Mobility in Soil:	Pirimicarb has medium mobility in soil.
Bioaccumulative Potential:	Pirimicarb does not bioaccumulate.
Solid with low volatility. (K <sub>ow</sub> logP = 4.2 (20°C), 1.7 (unionised))	
Results of PBT and vPvB assessment:	
	This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)
	This substance is not considered to be very persistent nor very bioaccumulating (vPvB)

## Section 13: DISPOSAL CONSIDERATIONS

<b>Product Disposal:</b>	Dispose of this product only by using according to the label, or at an approved landfill or other approved facility.
<b>Container Disposal:</b>	<p><i>For HDPE bottles:</i>            Ensure the container is empty. Triple rinse empty container and add rinsate to the spray tank. Recycle empty container without caps through Agrecovery (0800 247 326, <a href="http://www.agrecovery.co.nz">www.agrecovery.co.nz</a>). DO NOT reuse this container for any other purpose.</p> <p><i>For cardboard boxes:</i>            Ensure the container is empty. Rinse the container and add the residue to the spray tank. If allowed under local Territorial Authority District Plans, burn if circumstances, especially wind direction permit, otherwise crush and bury in an approved local authority facility. DO NOT reuse this container for any other purpose.</p>

## Section 14: TRANSPORT INFORMATION

<b>Rail / Road (RID/ADR)</b>	UN-No: 2757	Class: 6
	Packaging Group: III	Proper shipping name: CARBAMATE PESTICIDES, SOLID, TOXIC, N.O.S. (Pirimicarb)
<b>Sea (IMDG-Code)</b>	UN-No: 2757	Class: 6
	Packaging Group: III	Proper shipping name: CARBAMATE PESTICIDES, SOLID, TOXIC, N.O.S. (Pirimicarb)
	MARINE POLLUTANT: Yes	
<b>Air (ICAO/IATA)</b>	UN-No: 2757	Class: 6
	Packaging Group: III	Proper shipping name: CARBAMATE PESTICIDES, SOLID, TOXIC, N.O.S. (Pirimicarb)

## Section 15: REGULATORY INFORMATION

<b>HSNO Approval Number:</b>	HSR000704
<b>HSNO Controls (inc. Tracking and Record Keeping):</b>	See <a href="http://www.epa.govt.nz/search-databases/Pages/controls-search.aspx">http://www.epa.govt.nz/search-databases/Pages/controls-search.aspx</a> for controls.
<b>ACVM Registration:</b>	P 1904
<b>ACVM Controls:</b>	See <a href="http://www.foodsafety.govt.nz/industry/acvm">www.foodsafety.govt.nz/industry/acvm</a> for registration conditions.

## Section 16: OTHER INFORMATION

<b>Note:</b>	This product is a registered agricultural chemical and must therefore be used in accordance with the container label directions. A comprehensive package of toxicological and environmental data for the active ingredients of this product has been submitted to the Government health and environment authorities and has been evaluated by expert toxicologists and environmental scientists.	
<b>CONTACT POINT:</b>	Business Manager - Crop Protection:	(09) 306 1503
	<b>24 HOURS EMERGENCY CONTACT:</b>	<b>0800 734 607</b>
	This Material Safety Data Sheet 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.	
	®Registered Trade Mark of a Syngenta Group Company.	
<b>DISCLAIMER</b>	This product complies with the specifications in its statutory registration. Implied terms and warranties are excluded. Syngenta's liability for breach of the express or any non-excludable implied warranty is limited to product replacement or purchase price refund. The purchaser must determine suitability for intended purpose and take all proper precautions in the handling, storage and use of the product including those on the label and/or safety data sheet failing which Syngenta shall have no liability.	