

HealthGuard Corporation Pty. Ltd.

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Safety Data Sheet

In accordance with Safe Work Australia and Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EC) No. 453/2010

		of the Material and Sup						
1.1	Product Name	HealthGuard® PLB						
	Chemical name	Not Applicable						
	Other / Shipping Names	ENVIRONMENTALLY HAZARDOUS SUBSTANCE LIQUID N.O.S. (contains Permethrin)						
	CAS No.	Not Applicable						
	EC No.	Not Applicable						
	Reach Registration No.	Not Applicable						
.2	-	Biocidal Processing Age	ent					
.3	Supplier Details by Country	- Australia -			- Europe -			
	Supplier/Manufacturer	HealthGuard Corporat	ion Ptv I td			d Corporation UK	Limited	
	ABN:	30 082 752 378	lon r ty. Etd.		neutriouur	a corporation on	Emilieu	
				//O 0004 Australia	-			Frankrad
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ст	ION 2: Hazards Identi	fication						
			Hazardo	us Classification				
.1	Classification of the substance/m	ixture according to Regulat						-
.2	Labelling according to Regulation							
.2								
	Acute Oral Toxicity	Cotogony 4						
	riculo era remeny	Category 4	Acute Dermal	Toxicity Cat	egory 4	Acute Toxicity I	nhalation	Categor
	Skin Corrosion/Irritation		Acute Dermal [·] Sensitiser		tegory 4 tegory 1	Acute Toxicity In Environmental	nhalation	Categor Categor
						•	nhalation	
	Skin Corrosion/Irritation					•	nhalation	-
	Skin Corrosion/Irritation					•	nhalation	-
	Skin Corrosion/Irritation CLP Label Elements	Category 1B	Gensitiser	Cat	egory 1	•		-
02	Skin Corrosion/Irritation CLP Label Elements Signal word	Category 1B	Sensitiser	Cat	ecautionary State	Environmental		-
	Skin Corrosion/Irritation CLP Label Elements Signal word Hazardous Stater	Category 1B	Sensitiser Warning P260	Cat	ecautionary State ume/gas/mist/vapo	Environmental		-
12	Skin Corrosion/Irritation CLP Label Elements	Category 1B S Category 1B S Danger	Sensitiser Warning P260 P264	Cat Cat Cat Cat Cat Cat Cat Cat Cat Cat	ecautionary State ume/gas/mist/vapor r handling.	Environmental ements (Preventio urs/spray.		-
12 14	Skin Corrosion/Irritation CLP Label Elements	Category 1B S Category 1B S Danger	Sensitiser Warning P260 P264 P271	Cat Cat Cat Cat Cat Cat Cat Cat Cat Cat	ecautionary State ume/gas/mist/vapo r handling. in well ventilated a	Environmental ements (Preventio urs/spray. reas.	on)	-
12 14 17	Skin Corrosion/Irritation CLP Label Elements Signal word Hazardous Stater Harmful if swallowed. Harmful in contact with skin. Causes severe skin burns and ey May cause allergic skin reaction.	Category 1B S Category 1B S Danger	Sensitiser Warning P260 P264 P271 P272	Cat Cat Cat Cat Cat Cat Cat Cat Cat Cat	ecautionary State ume/gas/mist/vapo r handling. in well ventilated a othing should not l	Environmental ements (Preventio urs/spray. reas.	on)	-
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12 14 17 00	Skin Corrosion/Irritation CLP Label Elements	Category 1B Category 1B Danger Danger ments ve damage. P AIR): Remove/take off imm cautiously with water for sea ash occurs: Get medical add ists: Get medical attention. ted clothing and wash befor	Sensitiser Warning P260 P264 P271 P272 P273 P280 Pediately all con everal minutes. vice attention. re reuse.	Cat Cat Cat Cat Cat Cat Cat Cat Cat Cat	ecautionary State ume/gas/mist/vapor r handling. in well ventilated a othing should not l invironment. is/protective clothin se) use skin with water es, if present and o	Environmental ements (Preventic urs/spray. reas. be allowed out of th ng/eye protection/fa	on) ne work place. ace protection.	-

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2	Name		Mixture	%	Classification
2	Name			70	(EC) No. 1272/2008 [CLP]
	2-(2-Butoxyethoxy) ethanol;	CAS No. EC No.	112-34-5 203-961-6		
	Diethylene glycol monobutyl ether	Index No.	603-096-00-8	> 60%	Eye Corrosive/Irritant 2, H319
		Reach No.			
	Permethrin (ISO), m-phenoxybenzyl 3-(2,2-	CAS No. EC No.	52645-53-1 258-067-9		Acute Tox 4, Skin Sens. 1, Aquatic acu
	dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate	Index No.	613-058-00-2	< 10%	Aquatic Chronic 1; H302, H317, H332, H410
		Reach No.			THE TO
		CAS No. EC No.	55965-84-9 611-341-5		Acute Tox. 3, Skin Corr. 1B, Skin Sens
	Isothiazolinone mixed	Index No.	613-167-00-5	< 10%	Aquatic Acute 1, Aquatic Chronic 1: H3 H311, H301, H314, H317, H400, H410
		Reach No.	Not Available		
	ALL other ingredients are classified as NON-HAZARDO	OUS according	g to the criteria of Safe Wor	rk Australia and Regulat	tion (EC) No. 1272/2008. Up to 100 %
	This material is NOT listed on the Australian Inventory	of Chemical S	Substances (AICS).		
т	ON 4: First Aid Measures			_	
	If poisoning occurs, contact a doctor or Poisons In	ormation Ce	ntre. Australia on 13 1	11.26 – or – New Z	Zealand on 0800 764 766
1	General Advice				nated clothing. Consult Doctor if required ar
		provide this	Safety Data Sheet. An Ey	vebath, Safety Shower a	nd First Aid Kit should be made available in
		workplace.			
	Eye contact	-		s of water for at least 15	5 minutes including under the eyelids.
	Inhalation		dical Assistance	ecoming a casualty De	move contaminated clothing and losses
	maation				move contaminated clothing and loosen ion and keep warm. **IF breathing has stop
		-			e. If victim feels unwell upon recovery conta
		doctor.			
	Ingestion		-		give plenty of water to drink. **DO NOT give
					t a doctor or poisons information centre on
		number 13 0919/ 0633		a + 112 / 16662, *ireland	d + 353 (01) 809 2166, * Turkey + 90 212 45
	Skin contact			ash skin with plenty of s	oap and water. If irritation occurs seek med
			ash contaminated clothing b		
2	Most important symptoms and effects both acute	Refer to see	ation 11		
	and delayed.				
3	Indication of any immediate medical attention and			directed towards sympto	oms and condition of the patient. Treat
	special treatment needed. Advice to Doctor	symptomati		Safaty Data Shoot for b	ealth affects. Treat symptomatically. **Refe
					efer to Section 11 – Toxicology of Safety Da
		Sheet for he	ealth effect.		
`Т	ON 5: Fire-Fighting Measures				
	Suitable Extinguishing Media	Use extinal	uishing media appropriate f	or surrounding fire. Wat	ter spray, Foam, Carbon Dioxide and Dry
	5	Powder Ch	• • • •	· · · · · · · · · · · · · · · · · · ·	······
2	Specific hazards arising from substance or	Heating car	n cause expansion and pos	sible violent rupture of c	containers. If safe to do so remove containe
	mixture			combustion products, w	hich may be toxic including Carbon monoxic
~		and Carbon			
3	Advice to fire-fighters		-		otective clothing, and fight fire from protectent oters to wear self contained breathing appar
			•		to vapour of products or combustion exists
	Hazchem Code (Australia)	• 3Z			
Т	ON 6: Accidental Release Measures				
	Goggles/Face Shield	; Chemical Re	esistant Overalls; Chemical	Resistant Work boots;	Gloves (Nitrile)
1	Personal precautions, protective equipment and				ly. DO NOT touch or walk through spilt
	emergency procedures			nnel and ignition source	s. Attempt to contain spill. DO NOT allow
		•	enter drains or sewers.	ironmontal Protoction A	uthority if spill cannot be contained.
	Environmental Precautions		m entering the environment		
2	Methods and materials for containment and				bent material (sand, soil or other inert mater
	cleaning up	to soak up a	spill and remove to an appr	ropriately labelled contai	ner for disposal. Minor spills can be cleane
2.3		-	bent material or water. DC	NOT allow wastewater	to enter sewers or drains.
3		For dispose	al see section 13.		
3	Reference to other sections				
3 4	Reference to other sections ON 7: Handling and Storage				
3 4 7		Material is d			aterial. Where exposure to raw material ex
.3 .4 .T	ION 7: Handling and Storage	Material is o use PPE <i>(S</i>	See Section 8: Exposure Co	ontrols / Personal Protec	tive Equipment). Use only in well ventilated
.3 .4 .T	ION 7: Handling and Storage	Material is o use PPE <i>(S</i> areas. DO	See Section 8: Exposure Co NOT eat, drink or smoke w	ontrols / Personal Protect when using the product.	<i>tive Equipment).</i> Use only in well ventilated Wash hands after use and before eating.
.3 .4 .T	ION 7: Handling and Storage	Material is o use PPE <i>(S</i> areas. DO Remove PF	See Section 8: Exposure Co NOT eat, drink or smoke w	ontrols / Personal Protect when using the product.	tive Equipment). Use only in well ventilated
.3 .4 .T	ON 7: Handling and Storage Precautions for Safe Handling	Material is o use PPE (S areas. DO Remove PF storing.	Gee Section 8: Exposure Co NOT eat, drink or smoke w PE and contaminated clothin	ontrols / Personal Protect /hen using the product. ng after use and before	tive Equipment). Use only in well ventilated Wash hands after use and before eating. eating. Wash all PPE after use and before
3 4 1	ION 7: Handling and Storage	Material is o use PPE (S areas. DO Remove PF storing. Store in che	See Section 8: Exposure Cc NOT eat, drink or smoke w PE and contaminated clothin emical resistant plastic cont	ontrols / Personal Protect /hen using the product. ng after use and before tainers in a cool dry well	<i>tive Equipment).</i> Use only in well ventilated Wash hands after use and before eating.

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8.1	ON 8: Exposure Con Control Parameters	trols / Personal Protection							
	2-(2-Butoxyethoxy) ethanol; Diethylene glycol monobutyl ethe	LIST Dow IHG, EU IOELV, ACGIH	VALUE 35ppm, 67.5 mg/m3 10ppm, 101.2 mg/m3 15ppm, 1	10ppm TWA, Inhaled fraction and vapour					
	The following materials had no OEL's on our records Permethrin CAS No. 52645-53-1								
	Isothiazolinone mixed	CAS No. 55965-84-9							
	Exposure Controls								
2.1	Engineering controls: Use engineering controls: Use engineering controls to be sufficient for		ntain airborne levels below exposure limit requi	irements. If there is no limit assigned gene					
2.2	Personal Protection Equipment								
	Eye and face protection	Safety glasses with side shield, goggles of							
	Skin protection	Chemically resistant overalls and boots a	nd gloves (Nitrile). nown or the risk of inhalation of spray or mists (exists wear a combined Organic Particulat					
	Respiratory protection	Filter.	nown of the fisk of finalation of spray of finals	exists wear a combined organic Particulat					
	Other Information		be in accordance with the relevant regulation o	r standards.					
СТІ	ON 9: Physical and C	Chemical Properties							
	Form / Colour / Odour	Clear yellow liquid / Fruity odour	Relative Density (Specific Gravity)	0.95 – 0.98					
	рН	3.0 – 5.0	Solubility	Soluble in alcohols and glycols					
	Melting Point/ Freezing point	No data available	Partition coefficient	Miscible in water No data available					
			n-octanol/water						
	Boiling Point	> 224°C estimate	Auto Ignition Temperature	No data available					
	Flash Point (closed cup)	Approx. 114°C	Decomposition Temperature	> 114°C					
	Flash point (open cup)	No data available	Viscosity	Approx. 6 mPa.s @ 20°C estimate					
	Evaporation Rate Vapour Pressure	Slow < 0.01 No data available	Explosive Properties Additional Information	No data available No additional information available					
	Vapour Density	No data available							
СТІ	ON 10: Stability and R	leactivity							
).1	Reactivity	No dangerous reactions known under nor	mal use.						
).2	Chemical Stability	Stable under normal conditions of use.							
).3	Possibility of Hazardous	No Data.							
	reactions								
	Conditions to avoid	Excessive heat and cold. Direct sunlight f							
	Incompatible materials	Strong Acids. Strong Bases and Oxidizin							
0.6	Hazardous decomposition		sult in decomposition products including but no	t limited to aldehydes, ketones, organic					
	products	acids and Carbon monoxide.							
СТІ	ON 11: Toxicology Inf								
	No adverse health e		d in accordance with this Safety Data Sheet, if the product is mishandled are: -	and the Product Label.					
.1	Information on toxic effects	Symptoms that may arise	In the product is mishandled are						
	Acute Toxicity								
	Inhalation		spiratory irritation. However inhalation of vapou	irs during high temperatures for prolonged					
	Insection	periods may produce drowsiness and dizziness with lack of co-ordination.							
	Ingestion Skin Contact	Accidental ingestion of the product may result in irritation and possible corrosion within the mouth and the gastro intestinal tract. Symptoms may include burning sensation and suppression of the central nervous system and accompanying drowsiness.							
	Eye	Contact with the skin may result in burns and sensitisation, irritation and mild inflammation. Prolonged exposure may result in contact dermatitis characterised by erythema (skin redness) and oedema (swelling), which may progress to vesiculation (blistering). May cause severe eye irritation/inflammation damage and pain with possible corneal injury.							
			ing the product and on the existing data on						
			kists for the mixture.						
		lous components							

2-(2-Butoxyethoxy) ethanol; Diethylene giycol monobulyi ether (Health Effects) Oral LD₅₀ (rab): 3305 mg/kg mouse 2410mg/kg; Dermal LD₅₀ (rabbit): 2800 mg/kg. Prolonged skin contact is likely to result in absorption of harmful amounts. Inhalation. No adverse effects are anticipated from single exposure. No relevant data for respiratory and narcotic effects. LC50 has not been determined. Eye. May cause severe eye irritation. Long-term effects: Available evidence suggests that repeated or prolonged exposure to this chemical can result in blood changes (red blood cell haemolysis). These effects were observed only at very high doses in rats. (3,4) There are no reports of adverse effects in humans from use of products containing this material.

Permethrin (Health Effects) Studies with laboratory animals have shown permethrin to have low oral and dermal toxicity. It is minimally irritating to the eyes and practically non-irritating to the skin. Low toxicity if inhaled. Permethrin is a skin sensitiser. 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 symptoms such as diarrhoea, salivation, tremors and intermittent convulsions. Over exposure of animals to permethrin via inhalation has also produced hypo activity and hypersensitivity. The concentration of the cis isomer is responsible for the acute toxicity of permethrin; therefore the higher the cis content the greater the toxicity. The product has low animal toxicity: the Acute Oral LD₅₀ (rat) >2000 mg/kg - undiluted and a low dermal toxicity; the Acute Dermal LD₅₀ (rabbit) > 2,000 g/kg. Acute inhalation Rat LC50 >5000mg/kg3.

Isothiazolinone (Health Effects) Acute Oral LD₅₀ (rat) 457 mg/kg, Dermal LD₅₀ (rabbit) 660 mg/kg, Eye irritation (rabbit) corrosive, Skin irritation (rabbit) severe irritation may be corrosive, Inhalation LC₅₀ (rat) 2.6 mg/L for 4 hours.

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	ION 12: Ecological Information	
12.1	Toxicity	Very toxic to aquatic organisms. May cause long-term effects in the aquatic environment. Do not discharge into sewers or waterways. No Ecological data exists for the product.
		Ingredients
	2-(2-Butoxyethoxy) ethanol;	Material is not classified as dangerous to aquatic organisms (LC50/EC50/IC50/LL50/EL50 greater than100mg/l in most
	Diethylene glycol monobutyl ether	sensitive species).
	Permethrin	Effects on aquatic organisms: Aquatic ecosystems are particularly vulnerable to the impact of Permethrin. A fragile
		balance exists between the quality and quantity of insects and other invertebrates that serve as fish food. The 48-hour
		LC50for rainbow trout is 0.0125 mg/L for 24 hours, and 0.0054 mg/L for 48 hours. The 48-hour LC50 in bluegill sunfish and
		salmon is 0.0018 mg/L. As a group, synthetic pyrethoids were toxic to all estuarine species tested. They had a 96-hour LCE
		of less than or equal to 0.0078 mg/L for these species. The bio concentration factor for Permethrin in bluefish is 715 times the
		concentrations in water and is 703 in catfish. This indicates that the compound has a low to moderate potential to accumulat
		in these organisms.
		Effects on other organisms: 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 wildlife. It should not be applied, or allowed to drift, to
		crops or weeds in which active foraging takes place.
	Isothiazolinone mixed	No data available.
2.2	Persistence and Degradability	
		Biodegradability: aerobic-Exposure time 28 d Result: 91.7 % - Readily biodegradable (OECD Test Guideline 301B).
	2-(2-Butoxyethoxy) ethanol;	biologradability, aerobic-exposure time 28 d Result. 91.7 % - Readily biologradabile (DECD Test Guideline 30 FB).
	Diethylene glycol monobutyl ether	President in coll and mountain Domethrin is of low to medarate persistance in the coll equipment with reserved
	Permethrin	Breakdown in soil and groundwater: Permethrin is of low to moderate persistence in the soil environment, with reported half lives of 30 to 38 days. Permethrin is readily broken down, or degraded in most soils except organic types. Soil
		half-lives of 30 to 38 days. Permethrin is readily broken down, or degraded, in most soils except organic types. Soil
		microorganisms play a large role in the degradation of Permethrin in the soil. The addition of nutrients to soil may increase the degradation of Permethrin. It has been observed that the availability of sodium and phosphorous degrasses when
		the degradation of Permethrin. It has 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 t
		soil particles and is nearly insoluble in water, it is not expected to leach or to contaminate groundwater.
		Breakdown in water: The results of one study near estuarine areas showed that Permethrin had a half-life of less than 2.5
		days. When exposed to sunlight, the half-life was 4.6 days. Permethrin degrades rapidly in water, although it can persist in adjust to 0.05 mg/l in water.
		sediments. There was a gradual loss of toxicity after Permethrin aged for 48 hours in sunlight at 0.05 mg/L in water.
		Breakdown in vegetation: Permethrin is not phytotoxic, or poisonous, to most plants when it is used as directed. Some
		injury has occurred on certain ornamental plants. No incompatibility has been observed with Permethrin on cultivated plants.
	Isothiazolinone mixed	Treated apples, grapes, and cereal grains contain <1mg/kg of Permethrin at harvest time.
		No data available.
2.3	Bio Accumulative Potential	
	2-(2-Butoxyethoxy) ethanol;	Does not bioaccumulate.
	Diethylene glycol monobutyl ether	
	Permethrin	Low potential for bioaccumulation.
	Isothiazolinone mixed	No data available.
2.4	Mobility in Soil	
	2-(2-Butoxyethoxy) ethanol;	Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important
	Diethylene glycol monobutyl ether	fate process. Potential for mobility in soil is very high (Koc between 0 and 50). Partition coefficient, soil organic carbon/wate
		(Koc): 2 Estimated. Henry's Law Constant (H): 1.52E-09 atm*m3/mole; 25 °C Estimated.
	Permethrin	No data available.
	Isothiazolinone mixed	No data available.
0 F		
2.5	Results of PBT and vPvB assessment	
	2-(2-Butoxyethoxy) ethanol;	No data available.
	Diethylene glycol monobutyl ether	
	Permethrin	No data available.
	Isothiazolinone mixed	No data available.
2.6	Other Adverse Effects	
	2-(2-Butoxyethoxy) ethanol;	No data available.
	Diethylene glycol monobutyl ether	
	Permethrin	Very toxic to aquatic life.
	Isothiazolinone mixed	No data available.
2.7	Additional Information	Do not allow product to enter waterways.
-ст	ION 13: Disposal Considerat	ions
	Waste treatment methods	This product, when being disposed of in its unused and uncontaminated state should be treated as a hazardous waste
		according to EC Directive 2008/98/EC. Any disposal practices must be in compliance with all national and provincial laws a
		any municipal or local by-laws governing hazardous waste. For used, contaminated and residual materials additional
		evaluations may be required. Do not dump into any sewers, on the ground, or into any body of water.
СТ	ION 14: Transport Informatio	n
4.1	UN No.	ADR / RID 3082 ADNR / ADN 3082 IMDG 3082 ICAO / IATA 3082
	ADG No.	
		Not classified as Dangerous Goods according to the Australian Dangerous Goods Code (ADG Code) for transport by Road
		and Rail in accordance with Section 3.3.3 Australian Special Provisions (ADG 7) if transported in packaging, IBC, or any other and the section of the sectio
		receptacle not exceeding 500kgs.
4.2	Proper Shipping Name	Environmentally Hazardous Substance. Liquid N.O.S. (Contains Permethrin).
4.3	Transport Hazard Class	Class 9 - Miscellaneous Dangerous Goods.
4.4	Packing Group	III. III.
4.5	Environmental Hazard	Marine pollutant.

14.6 Special Precautions for User

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Do not store with Oxidizing Agents. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code.

CTION 1	15: Regulatory Informat	ion					
5.1 Safe	ety, health and environmental regula	tions / for the substance or mixture.					
-	(2-Butoxyethoxy) ethanol; CAS No. 112-34-5						
	ethylene glycol monobutyl ether Iropean Inventory of Existing Chemical Substances (EINECS). The components of this product are on the EINECS inventory or are exempt from inventory						
	uirements. EINECS Number 203-96	· · · ·	bonents of this pro	duct are on the EINECS inventory of are exempt from inventory			
	methrin	CAS No. 52645-53	-1				
				n Customs Inventory of Chemical Substances ECICS (English)",			
			-	graphs", "European Union (EU) Commission Directive 2006/15/EC			
	-			an Union - European Inventory of Existing Commercial Chemical n (EU) Regulation (EC) No 1272/2008 on Classification, Labelling and			
				ctive 2006/15/EC establishing a second list of indicative occupational			
-		n)", "European Union (EU) Annex I t	to Directive 67/548	B/EEC on Classification and Labelling of Dangerous Substances - update			
	ATP: 31".	CAS No. 55965-84	1.0				
	hiazolinone mixed			ging of Substances and Mixtures - Annex VI", "European Union			
) Annex I to Directive 67/548/EEC c		-				
	emical Safety Assessment	-					
		-	-	rios prepared by your Supply Chain if available.			
-	-Butoxyethoxy) ethanol; thylene glycol monobutyl ether	CAS No. 112-34-5 Serious damage/eye irritation	EINECS No. 203 Category 2 H3				
	ard Class	Schous damage/cyc imation					
Perr	methrin	CAS No. 52645-53-1	EINECS No. 258	3-067-9			
	ard Class		atic Acute 1, Aqua	atic Chronic 1. H302, H317, H332, H410			
	hiazolinone mixed ard Class	CAS No. 55965-84-9 Acute Tox 3 Skin Corr 1B Skin	Sens 1 Eve Dan	n. 1, Aquatic Acute 1, Aquatic Chronic 1, Acute Tox. 2, STOT SE 3, Met.			
The second				00, H410, H310, H330, H335, H413, H290			
HAZ	ZARDOUS according to the criteria of	of Safe Work Australia and Regulation	on (EC) No. 1272/	/2008.			
	product is registered with the Austr	alian Posticidos and Votorinany Mod	dicines Authority (ADV/MAX Desistant as Lealth Quard EC Mitisida 52010/1001			
This	s product is registered with the Adstr	alian resuciues and veterinary wet		APVMA). Registered as HealthGuard EC Miticide 53819/1001.			
_	sons Schedule (Australia)		, and the second se	APVWA). Registered as realtinguard EC Millicide 53619/1001.			
_	sons Schedule (Australia)			accordance with the relevant regulations.			
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Safety Data Sheets (SDS) are updated frequently, please ensure that you have a current copy.

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