

Ilium Ear Drops

Troy Laboratories Pty Ltd

Chemwatch: 5398-42 Version No: 4.1.1.1 Safety Data Sheet according to WHS and ADG requirements Chemwatch Hazard Alert Code: 2

Issue Date: 08/05/2020 Print Date: 13/05/2020 L.GHS.AUS.EN

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Identifier

Product name	llium Ear Drops
Synonyms	APVMA number: 38559
Other means of identification	Not Available
Relevant identified uses of the substance or mixture and uses advised against	

Relevant identified uses Active against ear mites, bacterial and fungal infections in dogs and cats. To be used as directed on product label

Details of the supplier of the safety data sheet

Registered company name	Troy Laboratories Pty Ltd	
Address	37 Glendenning Road Glendenning NSW 2761 Australia	
Telephone	02 8808 3600	
Fax	02 9677 9300	
Website	www.Troylab.com.au	
Email	admin@troylab.com.au	

Emergency telephone number

Association / Organisation	Troy Laboratories Pty Ltd	
Emergency telephone numbers	02 8808 3600 (Office hours (8am – 4pm, Monday to Friday))	
Other emergency telephone numbers	Not Available	

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

Poisons Schedule	S5	
Classification ^[1]	Skin Corrosion/Irritation Category 2, Eye Irritation Category 2A, Acute Aquatic Hazard Category 3, Chronic Aquatic Hazard Category 3	
Legend:	1. Classified by Chernwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI	

Label elements

Hazard pictogram(s)

SIGNAL WORD	WARNING
Hazard statement(s)	
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H412	Harmful to aquatic life with long lasting effects.
Precautionary statement(s) Prevention	
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement(s) Response

P321	Specific treatment (see advice on this label).
P362	Take off contaminated clothing and wash before reuse.

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
P302+P352	IF ON SKIN: Wash with plenty of water.
P332+P313	If skin irritation occurs: Get medical advice/attention.

Precautionary statement(s) Storage

Not Applicable

Precautionary statement(s) Disposal

P501 Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
57-55-6	>60	propylene glycol
97-23-4	<1	dichlorophene
51-03-6	<1	piperonyl butoxide
8003-34-7	<1	pyrethrum
Not Available	balance	Ingredients determined not to be hazardous

SECTION 4 FIRST AID MEASURES

Description of first aid measures

Eye Contact	 If this product comes in contact with the eyes: Wash out immediately with fresh running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Seek medical attention without delay; if pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin or hair contact occurs: ▶ Flush skin and hair with running water (and soap if available). ▶ Seek medical attention in event of irritation.
Inhalation	 If fumes, aerosols or combustion products are inhaled remove from contaminated area. Other measures are usually unnecessary.
Ingestion	 For advice, contact a Poisons Information Centre or a doctor at once. Urgent hospital treatment is likely to be needed. If swallowed do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Transport to hospital or doctor without delay.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

- There is no restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding area.

Special hazards arising from the substrate or mixture

Fire Incompatibility	Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result
lvice for firefighters	
Fire Fighting	 Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves in the event of a fire. Prevent, by any means available, spillage from entering drains or water courses. Use fire fighting procedures suitable for surrounding area. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire. Equipment should be thoroughly decontaminated after use.
Fire/Explosion Hazard	 Combustible. Slight fire hazard when exposed to heat or flame. Heating may cause expansion or decomposition leading to violent rupture of containers. On combustion, may emit toxic fumes of carbon monoxide (CO).

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	 May emit acrid smoke. Mists containing combustible materials may be explosive. Combustion products include: carbon dioxide (CO2) hydrogen chloride phosgene other pyrolysis products typical of burning organic material. May emit poisonous fumes.
HAZCHEM	Not Applicable

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	 Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment. Contain and absorb spill with sand, earth, inert material or vermiculite. Wipe up. Place in a suitable, labelled container for waste disposal.
Major Spills	 Moderate hazard. Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water course. Stop leak if safe to do so. Contain spill with sand, earth or vermiculite. Collect recoverable product into labelled containers for recycling. Neutralise/decontaminate residue (see Section 13 for specific agent). Collect solid residues and seal in labelled drums for disposal. Wash area and prevent runoff into drains. After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using. If contamination of drains or waterways occurs, advise emergency services.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling	safe handling
-------------------------------	---------------

Safe handling	 Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps. DO NOT enter confined spaces until atmosphere has been checked. DO NOT allow material to contact humans, exposed food or food utensils. Avoid contact with incompatible materials. When handling, DO NOT eat, drink or smoke. Keep containers securely sealed when not in use. Avoid physical damage to containers. Always wash hands with soap and water after handling. Work clothes should be laundered separately. Launder contaminated clothing before re-use. Use good occupational work practice. Observe manufacturer's storage and handling recommendations contained within this SDS. Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.
Other information	 Store in original containers. Keep containers securely sealed. No smoking, naked lights or ignition sources. Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks.

Suitable container Polyethylene or polypropylene container. Packing as recommended by manufacturer. Check all containers are clearly labelled and free from leaks. Storage incompatibility Avoid reaction with oxidising agents 		Packing as recommended by manufacturer.
		Avoid reaction with oxidising agents

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	propylene glycol	Propane-1,2-diol total: (vapour & particulates)	150 ppm / 474 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	propylene glycol	Propane-1,2-diol: particulates only	10 mg/m3	Not Available	Not Available	Not Available
Australia Exposure Standards	pyrethrum	Pyrethrum	5 mg/m3	Not Available	Not Available	Not Available

EMERGENCY LIMITS

Ingredient	Material name	TEEL-	-1	TEEL-2	TEEL-3
propylene glycol	Polypropylene glycols	30 mg	/m3	330 mg/m3	2,000 mg/m3
propylene glycol	Propylene glycol; (1,2-Propanediol)	Propylene glycol; (1,2-Propanediol) 30 mg/m3		1,300 mg/m3	7,900 mg/m3
dichlorophene	Dichlorophene	Dichlorophene 4.5 mg/m3 5		50 mg/m3	300 mg/m3
piperonyl butoxide	Piperonyl butoxide	Piperonyl butoxide 6.5 mg/m3		72 mg/m3	1,200 mg/m3
Ingredient	Original IDLH		Revised ID	DLH	
propylene glycol	Not Available	Not Available		ble	
dichlorophene	Not Available	Not Available		le	
piperonyl butoxide	Not Available	Not Available		ble	
pyrethrum	5,000 mg/m3		Not Availab	ble	

OCCUPATIONAL EXPOSURE BANDING

Ingredient	Occupational Exposure Band Rating Occupational Exposure Band Limit			
dichlorophene	pphene E ≤ 0.01 mg/m³			
Notes:	Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.			

MATERIAL DATA

Exposure controls

	Engineering controls are used to remove a hazard or place a be highly effective in protecting workers and will typically be in The basic types of engineering controls are: Process controls which involve changing the way a job activit Enclosure and/or isolation of emission source which keeps a "adds" and "removes" air in the work environment. Ventilation ventilation system must match the particular process and che Employers may need to use multiple types of controls to prevent Local exhaust ventilation usually required. If risk of overexpoor protection. Supplied-air type respirator may be required in sp An approved self contained breathing apparatus (SCBA) may Provide adequate ventilation in warehouse or closed storage velocities which, in turn, determine the "capture velocities" of	ndependent of worker interactions to provide this high level ty or process is done to reduce the risk. selected hazard "physically" away from the worker and ven o can remove or dilute an air contaminant if designed prope emical or contaminant in use. vent employee overexposure. sure exists, wear approved respirator. Correct fit is essentia ecial circumstances. Correct fit is essential to ensure adequ y be required in some situations. area. Air contaminants generated in the workplace posses:	of protection. tilation that strategically rly. The design of a I to obtain adequate late protection. s varying "escape"		
	Type of Contaminant:		Air Speed:		
	solvent, vapours, degreasing etc., evaporating from tank (i	0.25-0.5 m/s (50-100 f/min.)			
Appropriate engineering	aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation) f/				
controls	direct spray, spray painting in shallow booths, drum filling, generation into zone of rapid air motion)	conveyer loading, crusher dusts, gas discharge (active	1-2.5 m/s (200-500 f/min.)		
	grinding, abrasive blasting, tumbling, high speed wheel gen very high rapid air motion).	2.5-10 m/s (500-2000 f/min.)			
	Within each range the appropriate value depends on:				
	Lower end of the range	Upper end of the range			
	1: Room air currents minimal or favourable to capture	1: Disturbing room air currents			
	2: Contaminants of low toxicity or of nuisance value only.	2: Contaminants of high toxicity			
	3: Intermittent, low production.	3: High production, heavy use			
	4: Large hood or large air mass in motion	4: Small hood-local control only			
	Simple theory shows that air velocity falls rapidly with distance with the square of distance from the extraction point (in simpl accordingly, after reference to distance from the contaminatir 1-2 m/s (200-400 f/min) for extraction of solvents generated i	le cases). Therefore the air speed at the extraction point shing source. The air velocity at the extraction fan, for example	ould be adjusted, , should be a minimum of		

1-2 m/s (200-400 f/min) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.



Personal protection

Eye and face protection	 Safety glasses with side shields Chemical goggles. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]
Skin protection	See Hand protection below
Hands/feet protection	The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application. The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed molisturier's ir secommended. Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include:
Body protection	Wear safety footwear or safety gumboots, e.g. Rubber See Other protection below
Body protection	
Other protection	 Overalls. P.V.C. apron. Barrier cream. Skin cleansing cream. Eye wash unit.

Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

"Forsberg Clothing Performance Index".

The effect(s) of the following substance(s) are taken into account in the $\ensuremath{\textit{computer-generated}}$ selection:

IIIum	Ear	Drops	

Material	CPI	
PE/EVAL/PE	Α	

* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion **NOTE**: As a series of factors will influence the actual performance of the glove, a final

selection must be based on detailed observation. -* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

Respiratory protection

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required. Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	A-AUS P2	-	A-PAPR-AUS / Class 1 P2
up to 50 x ES	-	A-AUS / Class 1 P2	-
up to 100 x ES	-	A-2 P2	A-PAPR-2 P2 ^

^ - Full-face

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

- Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- The wearer must be warned to leave the contaminated area immediately on

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detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.

Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Appearance Clear faint yellow viscous liquid with distinct dichlorophen odour; mixes with water.				
Physical state	Liquid	Relative density (Water = 1)	1.04		
Odour	Not Available	Partition coefficient n-octanol / water	Not Available		
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available		
pH (as supplied)	Not Available	Decomposition temperature	Not Available		
Melting point / freezing point (°C)	~0	Viscosity (cSt)	Not Available		
Initial boiling point and boiling range (°C)	~100	Molecular weight (g/mol)	Not Applicable		
Flash point (°C)	Not Available	Taste	Not Available		
Evaporation rate	Not Available	Explosive properties	Not Available		
Flammability	Not Available	Oxidising properties	Not Available		
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available		
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Available		
Vapour pressure (kPa)	2.37 @20C	Gas group	Not Available		
Solubility in water	Miscible	pH as a solution (1%)	Not Available		
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available		

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	 Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhaled	The material is not thought to produce either adverse health effects or irritation of the respiratory tract following inhalation (as classified by EC Directives using animal models). Nevertheless, adverse systemic effects have been produced following exposure of animals by at least one other route and good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.		
Ingestion	The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence. The material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (e.g liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality rather than those producing morbidity (disease, ill-health). Gastrointestinal tract discomfort may produce nausea and vomiting. In an occupational setting however, ingestion of insignificant quantities is not thought to be cause for concern.		
Skin Contact	The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.		
Eye	Although the liquid is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).		
Chronic	There is some evidence to provide a presumption that human exposure to the material may result in impaired fertility on the basis of: some evidence in animal studies of impaired fertility in the absence of toxic effects, or evidence of impaired fertility occurring at around the same dose levels as other toxic effects but which is not a secondary non-specific consequence of other toxic effects.		
llium Ear Drops	TOXICITY Not Available	IRRITATION Not Available	

	TOXICITY	IRRITATION	
	Dermal (rabbit) LD50: 11890 mg/kg ^[2]	Eye (rabbit): 100 mg - mild	
	Inhalation (rat) LC50: >44.9 mg/l/4H ^[2]	Eye (rabbit): 500 mg/24h - mild	
propylene glycol	Oral (rat) LD50: 20000 mg/kg ^[2]	Eye: no adverse effect observed (not irritating) ^[1]	
		Skin(human):104 mg/3d Intermit Mod	
		Skin(human):500 mg/7days mild	
		Skin: no adverse effect observed (not irritating) ^[1]	
	ΤΟΧΙΟΙΤΥ	IRRITATION	
dichlorophene	Oral (rat) LD50: 1506 mg/kg ^[2]	Eye (rabbit): 0.05 mg/24h-SEVERE	
		Skin (rabbit): 500 mg/24h - mild	
	ΤΟΧΙΟΙΤΥ	IRRITATION	
	dermal (rat) LD50: >2000 mg/kg ^[1]	Not Available	
piperonyl butoxide	Inhalation (rat) LC50: >5.9 mg/l4 h ^[1]		
	Oral (rat) LD50: >2000 mg/kg ^[1]		
	ΤΟΧΙΟΙΤΥ	IRRITATION	
pyrethrum	dermal (rat) LD50: 1350 mg/kg ^[2]	Not Available	
	Oral (rat) LD50: 200 mg/kg ^[2]		
Legend:	1. Value obtained from Europe ECHA Registered Substa specified data extracted from RTECS - Register of Toxic	nces - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise	

llium Ear Drops	<
PROPYLENE GLYCOL	The acute oral toxicity of propylene glycol is very low, and large quantities are required to cause perceptible health damage in humans. Serious toxicity generally occurs only at plasma concentrations over 1 gL, which requires extremely high intake over a relatively short period time. It would be nearly impossible to reach toxic levels by consuming foods or supplements, which contain at most 1 gly of PG. Cases of propylene glycol poisoning are usually related to either inappropriate intravenous administration or accidental gloss of supplements by the U.S. Food and Drug Administration as "generally recognized as safe" (GRAS) for use as a direct food additive. Prolonged contact with propylene glycol is essentially non-intrating to the skin. Undiluted propylene glycol is minimally irritating to the skin. Undiluted propylene glycol is minimally irritating to the skin. Undiluted propylene glycol is mainted by the U.S. Food and Drug a upper respiratory tract intration. Inhalation of the propylene glycol mey papers to present no significant hazard in ordinary applications. However, limited human experience indicates that inhalation of propylene glycol mists could be irritating to some individuals It is therefore recommended that propylene glycol to the used in applications where inhalation exposure or human eye contact with the spray mists of these materials is likely, such as fogs for theatrical productions or antifreze solutions for emergency eye wash stations. Propylene glycol is metabolised in the human body into privix acid (a normal acid generally abundant during digestion), and propionaldehyde (a potential) hazardous substance). Propylene glycol shows no evidence of being a carcinogen or of being genotoxic. Research has suggested that individuals who cannot tolerate propylene glycol in houses and development of asthma and allergic reactions, such as rhinitis or hives in children. For polylene glycol in dusces and development of asthma and allergic reactions, such as rhinitis or hives in children foo the propyle
DICHLOROPHENE	The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling epidermis. Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis. for dichlorophene Limited evidence exists that dichlorophene might have been associated with some relatively mild ill health effects on a small number of

	occasions, with symptoms such as 'itchy' red rash, abdominal pain, diarrhoea and urticarial ra Available data indicated that formulations containing > 40 g/l sodium dichlorophen should car The pH neutral formulation should also carry the risk phrase 'Risk of Serious Damage to Eyes Those formulations containing < 6 g/l sodium dichlorophen did not require precautionary labe Available data on dichlorophene metabolism indicated that 80 % of an oral dose was readily a were the sulfate and glucuronide conjugates, and little free dichlorophene was detected. Dichlorophene was found to be a skin sensitiser in a guinea pig maximisation test. In a furthe dichlorophene was found to give a negative response. However, as the full study report was to negative result was not possible. Human data suggested limited skin sensitising potential. In one study 18/766 patients were r dichlorophene challenge and 2 out of 100 patients with contact dermatitis also gave a positive concerning the sensitisation potential of formulations. Limited information from clothing works (1.3 % dichlorophene), indicated that the material was not a sensitiser. However, the workford contact dermatitis. Published information indicated that a 1% dichlorophene challenge of individuals, 0.5% (4320 indi individuals) dichlorophene sensitisation were reported. These were identified in long duration treated for leg ulcers with an ointment containing 0.25 % dichlorophene, 2/3 responded to 0.5 containing ointment. The third patient gave a weak response only. A brief report stated that 4/ dichlorophene, gave a positive response after a 48 h test. In a bacterial point mutation study, dichlorophene gave negative results when tested in 5 strail reported a positive result in one of 5 strains of S. typhimurium (TA1535) in the absence of an mutation test and a mouse bone marrow micronucleus test both gave negative results. A technical information sheet on dichlorophene reports a 2-generation reproductive study in v kg/d) to rats caused no adverse effects in either adult	ry the risk phrase 'Risk of Serious Damage to Eyes'. s'. This was based on the persistence of lesions. Illing. absorbed and excreted in 24 h. Major metabolites r published guinea pig maximisation test unavailable, independent confirmation of the eported to have shown a positive reaction to a reaction to dichlorophene. No studies were provided ers, working with dichlorophene-impregnated cloth we was not patch-tested to determine the cause of its with contact dermatitis detected a variable incidence viduals), 1.7% (465 individuals) and 11.2% (173 exposure screens (>24 h). In a study of 3 patients -5 % dichlorophene and one to the dichlorophene- 194 individuals, patch-tested with 4 % ns of Salmonella typhimurium. Published literature S9 fraction. A drosophila X-linked recessive lethal
PIPERONYL BUTOXIDE	The substance is classified by IARC as Group 3: NOT classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or limited in animal testing. Dermal (rabbit) LD50: >1880 mg/kg [Handbook of Toxicology] *Published value - probably no	t peer-reviewed ADI: 0.03 mg/kg
PYRETHRUM	Demail (rabbit) LD50: >1880 mg/kg [Handbook of Toxicology] "Published value - probably not peer-reviewed ADI: 0.03 mg/kg No significant acute toxicological data identified in literature search. For pyrethrins The term "pyrethrin" refers to all six isomers found in pyrethrum, extracts which are obtained from the dried and ground flowers of the pyrethrum plant, Chrysanthenum cinerariadeolium. The CAS Registry No. for the mixture is 8003-94-7. The individual isomers are referred to by the common names of the acid followed by an Arabic number 1 or 2 (i.e., pyrethrin 1, pyrethrin 2, cinerin 1, cinerin 1, amolin 1, jbrethrum extra(e.g., pyrethrins lincludes pyrethrin 1, cinerin 1, and jasmolin 1). Pyrethrin save to two conderate acute toxicity via the oral, dormal, and inhalation routes. Mammalian toxicity data suggest that pyrethrins are sightly toxic to small mammals on an acute oral basis (LD50 = 700 mg/kg body weight). They are a moderate eye irritant, a mil dermal irritant, and are ont a ski sensitisers. Toxic Effects The critical toxicological effects of pyrethrins are inprover thin's (isological effects of pyrethrins are inprover thin's (isological effects of pyrethrins are inprover thin's (isological effects of pyrethrins are inprover and mande of action on the rat and dog; and) liver effects, following chronic exposure, in the rat and dog; and i liver effects, following chronic exposure, include all consistence of experiptis such and long-term exposure in the rat and mouse. Following acute exposure, neurobehavioral effects and the mode of action in the sodium dhamal are considered relevant to humans, absorbed doses high enough to gamical all the made duction addocs are any marks in an acute neuroloxicity study; i clinical asigns (excessive salivation and head arched backward) in a female rabbit following exposure during based on the registered uses of pyrethrins formulations. In order for synargistic effects to be observed in humans, absorbed doses high enough to gamical all spin scenased and/or action aff	
Acute Toxicity	× Carcinogenicity	×
Skin Irritation/Corrosion	✓ Reproductivity	×
Serious Eye Damage/Irritation	✓ STOT - Single Exposure	×
Respiratory or Skin sensitisation	× STOT - Repeated Exposure	x
sensitisation		

×

Mutagenicity

X

Aspiration Hazard

Legena:

SECTION 12 ECOLOGICAL INFORMATION

	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
Ilium Ear Drops	Not Available	Not Available	Not Available	Not Available	Not Available
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	LC50	96	Fish	>10-mg/L	2
propylene glycol	EC50	48	Crustacea	43-500mg/L	2
	EC50	96	Algae or other aquatic plants	19-mg/L	2
	NOEC	168	Fish	11-530mg/L	2
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCI
dichlorophene	LC50	96	Fish	0.31mg/L	4
	EC50	96	Algae or other aquatic plants	1.135mg/L	3
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCI
	LC50	96	Fish	0.0024mg/L	4
piperonyl butoxide	EC50	48	Crustacea	0.1mg/L	4
	EC50	72	Algae or other aquatic plants	0.85mg/L	2
	NOEC	48	Crustacea	0.01mg/L	4
	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCI
pyrethrum	LC50	96	Fish	0.0032mg/L	4
	EC50	48	Crustacea	0.0067mg/L	4

V3.12 (0 Toxicity Data (E EPA, E Pata 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
propylene glycol	LOW	LOW
dichlorophene	HIGH	HIGH
piperonyl butoxide	HIGH	HIGH

Bioaccumulative potential

Ingredient	Bioaccumulation
propylene glycol	LOW (BCF = 1)
dichlorophene	LOW (BCF = 281)
piperonyl butoxide	HIGH (LogKOW = 4.75)

Mobility in soil

Ingredient	Mobility
propylene glycol	HIGH (KOC = 1)
dichlorophene	LOW (KOC = 80970)
piperonyl butoxide	LOW (KOC = 69.74)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

waste treatment methods		
Product / Packaging disposal	 Containers may still present a chemical hazard/ danger when empty. Return to supplier for reuse/ recycling if possible. Otherwise: If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill. Where possible retain label warnings and SDS and observe all notices pertaining to the product. DO NOT allow wash water from cleaning or process equipment to enter drains. It may be necessary to collect all wash water for treatment before disposal. 	

In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
Where in doubt contact the responsible authority.
▶ Recycle wherever possible.
 Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.
 Dispose of by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or incineration in a licensed apparatus (after admixture with suitable combustible material).
Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

SECTION 14 TRANSPORT INFORMATION

Labels Required		
Marine Pollutant	NO	
HAZCHEM	Not Applicable	

Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

SECTION 15 REGULATORY INFORMATION

Safety, health and environmental regulations / legislation specific for the substance or mixture

PROPYLENE GLYCOL IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

DICHLOROPHENE IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australia Inventory of Chemical Substances (AICS)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4 $\,$

PIPERONYL BUTOXIDE IS FOUND ON THE FOLLOWING REGULATORY LISTS Australia Inventory of Chemical Substances (AICS)

PYRETHRUM IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australia Inventory of Chemical Substances (AICS)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5 $\,$

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5 $\,$

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule ${\bf 6}$

Chemical Footprint Project - Chemicals of High Concern List

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 2

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5 $\,$

National Inventory Status

National Inventory	Status	
Australia - AICS	Yes	
Canada - DSL	Yes	
Canada - NDSL	No (propylene glycol; dichlorophene; piperonyl butoxide; pyrethrum)	
China - IECSC	Yes	
Europe - EINEC / ELINCS / NLP	Yes	
Japan - ENCS	No (pyrethrum)	
Korea - KECI	Yes	
New Zealand - NZIoC	Yes	
Philippines - PICCS	Yes	
USA - TSCA	No (pyrethrum)	
Taiwan - TCSI	Yes	
Mexico - INSQ	No (dichlorophene)	
Vietnam - NCI	Yes	
Russia - ARIPS	No (dichlorophene)	
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)	

SECTION 16 OTHER INFORMATION

Revision Date	08/05/2020
Initial Date	05/05/2020

SDS Version Summary

Version	Issue Date	Sections Updated
4.1.1.1	08/05/2020	Ingredients

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

Definitions and abbreviations

PC – TWA: Permissible Concentration-Time Weighted Average PC – STEL: Permissible Concentration-Short Term Exposure Limit IARC: International Agency for Research on Cancer ACGIH: American Conference of Governmental Industrial Hygienists STEL: Short Term Exposure Limit TEEL: Temporary Emergency Exposure Limit₀ IDLH: Immediately Dangerous to Life or Health Concentrations OSF: Odour Safety Factor NOAEL: No Observed Adverse Effect Level LOAEL: Lowest Observed Adverse Effect Level LOAEL: Lowest Observed Adverse Effect Level LOAEL: Lowest Observed Adverse Effect Level LOD: Limit of Detection OTV: Odour Threshold Value BCF: BioConcentration Factors BEI: Biological Exposure Index

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