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

Vulcan P RFU

Relevant identified uses of the substance or mixture

Relevant identified uses: biocidal product

The supplier of the safety data sheet is PelGar International Ltd

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2 – HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Aspiration Hazard (Cat 1)

Skin Irritation (Cat 2)

STOT SE Narcotic effects (Cat 3)

Chronic aquatic toxicity (Cat 2)

Labelling of special preparations (GHS): Permethrin is a neurotoxin. Exposure may

produce symptoms of neurotoxicity including diarrhoea, salivation, tremors,

convulsions, hyperactivity and hypersensitivity to touch or sound.

Label elements : Label	ling according Regulation (EC)	No 1272/2008 [CLP]
Signal Word : Danger		
	Hazard statement(s) : H315	Causes skin irritation.
$\langle \rangle \rangle$	H336	May cause drowsiness or dizziness.
$\mathbf{\nabla}$	H411	Toxic to aquatic life with long lasting effects.
XL	H304	May be fatal if swallowed and enters airways.
	Precautionary statement(s) :	
\mathbf{V}	P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
$\mathbf{\wedge}$	P331	Do NOT induce vomiting.
	P280	Wear protective gloves/protective clothing/eye protection/face protection.
	P260	Do not breathe mist/vapours/spray.
×	P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTER or
	P262	doctor/physician. Do not get in eyes, on skin, or on clothing
	P264	Wash thoroughly after handling.
	P270	Do not eat drink or smoke while using this product.
	P271	Use only outdoors or in a well ventilated area.
	P273	Avoid release to the environment.
	P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
	P501	Dispose of contents/container in accordance with local regulations.

Chemical nature Biocidal product

3 – COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous ingredients (GHS)_according to Regulation (EC) No. 1272/2008

Pe	etroleum Distillates
Content (W/W): 90-100 % CAS Number: 64742-47-8	Aspiration Hazard (Cat 1) Skin Irritation (Cat 2) STOT SE Narcotic effects (Cat 3) Chronic aquatic toxicity (Cat 2) H315, H336, H411, H304

Piperon	yl butoxide
Content (W/W): <1 %	Acute aquatic toxicity (Cat 1)
CAS Number: 51-03-6	Chronic aquatic toxicity (Cat 1)
EC No. 200-076-7	H400, H410

Tetramethrin	
Content (W/W): 0.125 %	Acute aquatic toxicity (Cat 1)
CAS Number: 7696-12-0	Acute chronic toxicity (Cat1)
EC No.: 231-711-6	H400, H410

	Permethrin
Content (W/W): 0.25 % CAS Number: 52645-53-1 EC No.: 258-067-9	Acute aquatic toxicity (Cat 1) Acute chronic toxicity (Cat1) Acute Toxicity, Oral, (Cat 4) Acute Toxicity, Inhalation, (Cat 4) Skin Sensitizer (Cat 1) H400, H410, H302, H332, H317

4 – FIRST-AID MEASURES

Description of first aid measures

General information: Immediately remove any clothing soiled by the product. Symptoms of poisoning may occur even after several hours; therefore medical observation for at least 48 hours after the incident is recommended.

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In case of irregular breathing or respiratory arrest provide artificial respiration.

After inhalation: Inhalation of mist or spray may cause irritation of the respiratory system. In case of unconsciousness move patient to fresh air and place in recovery position. Get emergency medical advice.

After skin contact: Remove contaminated clothing. Immediately wash with water and soap and rinse thoroughly. If irritation persists obtain medical attention. Only re-use contaminated clothing after it has been thoroughly washed.

After eye contact: Rinse opened eye for several minutes under running water. If irritation persists obtain medical attention.

After swallowing:

Rinse mouth. Do not induce vomiting. Call a doctor immediately. If conscious give a small amount of milk to drink. Show the container label to the doctor.

5 – FIRE FIGHTING MEASURES

Extinguishing media

Suitable extinguishing agents: CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Keep fire exposed containers cool by spraying with water.

Special hazards arising from the substance or mixture: Formation of toxic gases may occur if heated such as carbon oxides, nitrogen oxides and hydrogen chloride gas.

Protective equipment: Wear self-contained respiratory protective device and a chemical protection suit, gloves and boots.

6 – ACCIDENTAL RELEASE MEASURES

Environmental precautions: Contain or absorb leaking liquid with earth or sand. Do not allow to enter sewers/ surface or ground water. Inform appropriate authorities in case of leakage into water course or sewage system.

Methods and material for containment and cleaning up: Dispose of contaminated material as waste according to section 13. Ensure adequate ventilation. Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed

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containers for disposal. Subsequent to a spillage or leakage wash the contaminated area with water, or detergent and water, taking care to prevent the washings from entering surface water drains. Wear suitable protective clothing when cleaning up spillages.

Reference to other sections

See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

7 – HANDLING AND STORAGE

Handling

Precautions for safe handling: Take precautionary measures against static discharges. Do not apply in the presence of naked flames, hot surfaces or unprotected electrical equipment. Ensure all equipment is electrically grounded before beginning transfer operations. This product is flammable but not readily ignited. Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air. Keep away from all sources of ignition. Ensure thorough ventilation of stores and work areas. When using do not eat, drink or smoke. Avoid contact with skin and eyes and avoid inhalation of vapour or mist. If splashing is likely to occur wear approved eye protection. If spray mists are likely wear an approved respirator. If skin contact is likely wear rubber gloves and suitable impervious clothing.

Storage

Store in a cool, dry location. Store only in the original receptacle. Keep container in a well-ventilated place. Store away from foodstuffs. Keep out of reach of children.

Protection against fire and explosion:

Recommended storage temperature between 15 - 25 Deg C. Keep away from oxidizing agents. Keep away from sources of ignition.

8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure controls

Exposure Limit: Petroleum Distillates Hydro-treated light oil TWA (ppm): 300.

Engineering measures: The use of mechanical (explosion proof) dilution ventilation is recommended whenever this product is used in a confined space.

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Page 5 of 11

Personal protective equipment: Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work.

Hand protection: Suitable chemical resistant safety gloves. For example, nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm). Dispose of used gloves in accordance with applicable regulations. The selected protective gloves need to satisfy the specifications of EU directive 89/686/EEC and the standard EN374 derived from it.

Eye protection:

Face shield and safety glasses with side-shields approved under EN166 (EU) standard.

Body protection:

Body protection must be chosen depending on activity and possible exposure, for example apron, protecting boots, chemical-protection suit.

General safety and hygiene measures:

Handle in accordance with good hygiene and safety practice. Wearing of closed work clothing is recommended. Avoid contact with the skin, eyes and clothing. Store work clothing separately.

9 - PHYSICAL AND CHEMICAL PROPERTIES

 Form: Liquid Colour: Light Yellow Odour: Aromatic pH: Not available B.Pt (Deg. C): 200 – 250 Deg C M. Pt. (Deg. C): Not applicable Flash Point (Deg. C): >70 Deg C Explosive Properties: 0.6 – 8.0% Oxidising Properties: Not applicable Vapour Pressure (mm Hg): 0.03kPa at 20 Deg C Solubility (Water): Immiscible @ 20 Deg C 	
Odour: Aromatic pH: Not available B.Pt (Deg. C): 200 – 250 Deg C M. Pt. (Deg. C): Not applicable Flash Point (Deg. C): >70 Deg C Explosive Properties: 0.6 – 8.0% Oxidising Properties: Not applicable Vapour Pressure (mm Hg): 0.03kPa at 20 Deg C	Form: Liquid
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 M. Pt. (Deg. C): Not applicable Flash Point (Deg. C): >70 Deg C Explosive Properties: 0.6 – 8.0% Oxidising Properties: Not applicable Vapour Pressure (mm Hg): 0.03kPa at 20 Deg C 	pH: Not available
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Solubility (Water): Immiscible @ 20 Deg C	Vapour Pressure (mm Hg): 0.03kPa at 20 Deg C
	Solubility (Water): Immiscible @ 20 Deg C

/ulcan P RFL

Partition coefficient: Not available

Specific Gravity: Not available

Vapour Density: >1

Relative Density: 0.8

Auto ignition Temperature: >200 Deg C

10 – STABILITY AND REACTIVITY

Chemical stability

Stable under normal conditions.

Thermal decomposition / conditions to be avoided: The formation of toxic

gases/vapours may occur if heated.

Hazardous decomposition products: Oxides of carbon and smoke.

Conditions to avoid: Heat, flames, sparks.

Incompatible materials: Strong oxidizing agents and strong bases.

11 – TOXICOLOGICAL INFORMATION

Acute Toxicity

Oral (rat) LD₅₀ >2000mg/kg (calculated) Dermal (rat) LD₅₀ >4000mg/kg (calculated)

Skin corrosion/irritation

Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization of susceptible persons.

Serious eye damage/eye irritation

Vapour concentrations above recommended exposure levels might be slightly irritating to eyes.

Respiratory or skin sensitizer

Vapour concentrations above recommended exposure levels might be irritating to respiratory tract.

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Specific target organ toxicity

Vapours have a narcotic effect and may cause headache, fatigue, dizziness and nausea.

Aspiration hazard

Aspiration refers to the entry of a liquid or solid chemical directly through the oral or nasal cavity, or indirectly through vomiting, into the trachea and lower respiratory system. Aspiration toxicity includes severe acute effects such as chemical pneumonia, varying degrees of pulmonary injury or death following aspiration.

12 – ECOLOGICAL INFORMATION

Tetramethrin and Permethrin are broad-spectrum insecticides, which means they kill beneficial insects as well as the targeted insects. This product is **EXTREMELY HAZARDOUS TO BEES**.

Persistence and degradability: No further relevant information available.

Bioaccumulative potential: No further relevant information available.

Mobility in soil: No further relevant information available.

Ecotoxicological effects: Very toxic to aquatic organisms and may cause long—term adverse effects in the aquatic environment. Very toxic to fish.

Additional ecological information:

Do not allow product to reach ground water, water course or sewage system, even in small quantities. Poses a contamination danger to drinking water. Also very toxic to other aquatic organisms such as plankton.

Results of PBT and vPvB assessment

PBT: Not applicable.vPvB: Not applicable.Other adverse effects: No further relevant information available.

13 – DISPOSAL CONSIDERATIONS

Waste treatment methods

Recommendation

Do not allow product to reach sewage system.

European waste catalogue

The waste disposal key number from EWC is 20 01 19 (pesticides)

Recommendation: Dispose of in accordance with national regulations.

Vulcan P RFU

Contaminated packaging: Dispose of as unused product.

14- TRANSPORT INFORMATION

ADR/RID

UN Number: UN3082

Class: Class 9

Packing group: Packing group III

Hazard ID: 90

Proper shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (contains Petroleum Distillates, Permethrin and Tetramethrin)

IMDG

UN Number: UN3082

Class: Class 9

Packing group: Packing group III

Marine Pollutant

EMS Code: F-A, S-F

Proper shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (contains Petroleum Distillates, Permethrin and Tetramethrin)

IATA/ICAO

UN Number: UN3082

Class: Class 9

Packing group: Packing group III

Proper shipping Name: Environmentally Hazardous Substance, Liquid, N.O.S. (contains Petroleum Distillates, Permethrin and Tetramethrin)

15– REGULATORY INFORMATION

To avoid risks to man and the environment, comply with the instructions for use. The data should be considered when making any hazard assessment.

This product may be subject to the SEVESO II and SEVESO III European

regulations.

Vulcan P RFU

Classification and labelling according to Regulation:

(EC) No 1272/2008 [EU-GHS/CLP]

16– OTHER INFORMATION

For proper and safe use of this product, please refer to the product label.

Recommended Restrictions: Insecticide for professional use only.

Full text of the classifications, including the indication of danger and the hazard

statements, if mentioned in section 2:

Signal Word: Danger

- Aspiration Hazard, Category 1 Danger Health hazard symbol
- Skin Irritation, Category 2 Warning Exclamation mark
- STOT SE Narcotic effects, Category 3 Warning Exclamation mark
- Chronic aquatic toxicity, Category 2 No signal word Environmentally hazardous symbol
 - H315 Causes skin irritation.
 - H336 May cause drowsiness or dizziness.
 - H411 Toxic to aquatic life with long lasting effects.
 - H304 May be fatal if swallowed and enters airways.

Abbreviations:

- ADR: European agreement concerning the international carriage of dangerous goods by Road.
- IMDG: International Maritime Dangerous Goods.
- IATA: International Air Transport Association.
- ICAO: International Civil Aviation Organisation
- RID: Regulations concerning the International carriage of Dangerous goods by rail.
- STOT: Specific Target Organ Toxicity
- WHO: World Health Organisation
- EU: European Union
- PBT: Persistent, Bioaccumulative and Toxic

Vulcan P RFU

vPvT: very Persistent and very Bioaccumulative

SEVESO: The main piece of EU legislation that deals specifically with the control of on-shore major accident hazards involving dangerous substances.

H Phrase: Hazard phrase

P Phrase: Precautionary phrase

Exclusion of liability:

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