

MATERIAL SAFETY DATA SHEET

Publication Date: July 1997
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Sheet No: Pellets SA 01/4
Revision number: 8

PULSE PELLETS

Manufactured & Distributed by:

Synvita CC

Registration Holder:

Lifeguard Sciences (Pty) Ltd
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1) IDENTIFICATION OF THE SUBSTANCE/PREPARATION

<p>Commercial Name: Registration Number: Chemical Class: Appearance:</p> <p>Use:</p> <p>SA Registration Number: Namibia Registration Number: Zimbabwe Registration Number:</p>	<p>PULSE Pellets L 6190 3-[3-(4'-bromo[1,1'-biphenyl]-4-yl)-1,2,3,4-tetrahydro-1- naphthaleny Product is chemically a coumarin- type anticoagulant rodenticide, based on 0.05 g/kg (0.005%) active brodifacoum in the form of cereal-based pellet, blue in colour with white and brown specks.</p> <p>Anticoagulant bait used to control the Roof rat, Norway rat, House mouse and Gerbil and other commensal rodents.</p> <p>L6190 of Act 36 of 1947 N-AR1217 15-F-7-18</p>
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2) COMPOSITION / INFORMATION ON INGREDIENTS

<p>Brodifacoum CAS Number</p>	<p>Technical Material 56073-10-0</p>	<p>0.005%</p>
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Ingredients not precisely identified are proprietary or none hazardous.

3) HAZARDS IDENTIFICATION

<p>UN No: IMCO: HAZARDS</p> <p>Nature Of Hazard:</p> <p>Acute Symptoms of Human Exposure:</p>	<p>3027 6.1 Coumarin derivative pesticides, solid, toxic, n.o.s. Contains brodifacoum 0.05 g/kg Non-flammable, non-corrosive, non-explosive. Harmful if swallowed and on prolonged skin contact and if inhaled. Significant skin absorption may occur over an extended period. Symptoms of poisoning develop after several hours or days due to the anti-coagulant properties.</p> <p>Poison readily absorbed on prolonged skin contact and ingestion. Anti vitamin K₁ properties cause blood coagulation inducing haemorrhagic syndrome. Symptoms may develop over several hours or days. Poisoning may cause an abrupt and unusual abdominal pain, increasing the tendency to bleed under the skin as well as nose and gum bleeding and haemorrhaging around the elbow and knee joints. Pallor and blood in urine and faeces.</p>
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4) FIRST AID MEASURES

Eye:	Immediately wash eyes with copious amounts of clean water for at least 15 minutes.
Skin:	Immediately remove contaminated clothing, rinse affected skin area with plenty of soap and cool water or shower. Do not rub skin hard.
Ingestion:	Keep patient calm and reassured, rinse mouth with water and ensure airway is clear. In case of suspected poisoning, immediately transport patient to doctor or hospital and contact a poison centre. Never give anything by mouth to an unconscious person. Do not apply direct mouth-to-mouth respiration without the use of a disposable protective mouthpiece.
Inhalation:	In the unlikely event of exposure by inhalation remove patient from source of poisoning to a well-ventilated area and loosen constricting clothes. Do not apply direct mouth-to-mouth respiration but use a disposable protective mouthpiece.

SEEK MEDICAL ADVICE PROMPTLY AND SHOW THIS MSDS TO THE MEDICAL PRACTITIONER

Note To Physician: The efficacy of treatment must be measured by monitoring the Quick time and treatment must only be stopped when the Quick time has returned and remains at normal values. Administer 5mg/kg Vitamin K₁ intravenously on the first day followed by another administration of the same dose if the Quick time does not normalise within a few hours of the first injection. Follow up with 5mg/kg per day orally on the second and following days. The duration of treatment is generally between 10 and 15 days. In severe cases, small transfusions of matched fresh blood may improve prothrombin levels.

5) FIRE FIGHTING MEASURES

Specific Hazard	Product is classified as a Group II Hazardous Substance under the Hazardous Substance Act, Act 15 of 1973, as amended.
Decomposition of Product in Fire	Under thermal decomposition Brodifacoum may emit irritating and toxic fumes.
Fire Extinguisher Agents	Foam, chemical dry powders, carbon dioxide, water and halogenated agents.
Protection for Fire-fighters	Chemical impermeable gloves, safety goggles or face shield, effective protection or self-contained breathing apparatus as dictated by circumstances, full-length protective clothing and boots.
Specific Methods	No unprotected person should be allowed in the vicinity. Evacuation of area may be necessary in the event of a fire. Decontaminate area thoroughly by removing all spillage and contaminated waste.

6) ACCIDENTAL RELEASE MEASURES

PRECAUTIONS	
Personal	Wear gloves and suitable protective clothing; avoid skin contact and / or inhalation of dust; wash exposed skin area with soap and water and change clothes after handling. Report incident to emergency personnel in the event of a large spill.
Environmental	Recover pellets and transfer to original or waste container. Prevent contamination of sewers, waterways, low areas, drinking water, crops and / or grazing. The material is toxic to fish, birds and wildlife.
Methods For Cleaning	Cover spillage with sand, earth or other suitable inert material, carefully shovel up and transfer to salvage container, mark container "HAZARDOUS WASTE". Dispose of as for hazardous waste in accordance with local / national regulations.
Prevention of Secondary Hazardous Protective Clothing	Inspect for damaged containers and take the necessary precautions. Chemical impermeable gloves, safety goggles or face shield, effective respiratory protection or self contained breathing apparatus as dictated by circumstances. Use full-length protective clothing, apron and boots.

7) HANDLING AND STORAGE

Handling	Store wax blocks in their original packaging away from any edible commodity, food utensils and drinking water. Avoid contact with the skin by wearing rubber gloves and wash exposed skin area after handling. Do not eat, drink or smoke while handling the bait or before washing hands and face.
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Environmental Precautions

Prevent contamination of all sources of drinking water, rivers and dams as well as crops or grazing areas.

Storage

Store in original containers under lock and key, out of reach of children, animals and uninformed persons. Store in a cool dry place away from sources of heat and naked flames.

8) EXPOSURE CONTROL/PERSONEL PROTECTION

In the manufacturing process minimise exposure in accordance with good hygiene practice. Ensure area is well ventilated and protective clothing is used to protect eyes and body. Suitable dust mask or respirator for pesticides should be used for respiratory protection and eyewash and safety shower should be available in the work area.

9) PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Round cylindrical pellet
Size:	Average length 5-15 mm, average diameter 4.5 mm
Colour:	Blue with specks
Odour:	Vanillin
Boiling point:	228-230°C (brodifacoum)
Melting Point:	60°C
Vapour Pressure:	Negligible @20°C
Vapour Density:	Not applicable
Specific Gravity:	1.15
Solubility:	Insoluble

10) STABILITY AND REACTIVITY

Stability:	Stable under normal conditions. Avoid direct sunlight
Incompatibility/ materials to avoid:	Unknown
Hazardous decomposition products:	Combustion products – sulphur dioxide, carbon monoxide

11) TOXICOLOGICAL INFORMATION

Oral toxicity:	LD50 acute oral rat = 5400 mg/kg (WHO)
Dermal toxicity:	LD50 acute dermal = >2000 mg/kg

Acute Symptoms of Human Exposure

Dermal:	Irritation will probably not develop following contact with human skin.
Skin Absorption:	Systemically toxic concentrations of this product will probably not be absorbed through human skin.
Inhalation:	Because this product is a wax block, inhalation is not expected to be a normal route of exposure.
Eye:	No irritation is expected to develop following contact with the human eye.

Over exposure may cause an abrupt and unusual abdominal pain, increased tendency to bleed from nose and gum. Bleeding under the skin, pallor, blood in the urine and faeces, haemorrhage into and around elbow and knee joints and multiple spread of haematoma. Individuals with blood clotting disorders may be more susceptible to over exposure effects.

12) ECOLOGICAL INFORMATION

This material is toxic to fish, birds and wildlife.

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13) DISPOSAL CONSIDERATION

Accidental Spillage

Collect pellets and transfer to the original container or to a suitable waste container and dispose of waste in accordance with local and /or national regulations.

Disposal of Used Packing Material

Destroy the empty container by perforating and flattening and unused product as for toxic waste in accordance with local and /or national regulations. **Do not** re-use for any other purpose.

14) TRANSPORT INFORMATION

International Regulations

UN No:	3027
UN Hazardous Class:	6.1
UN Packaging group:	I
Hazardous Description Label:	Coumarin Anticoagulant toxic. Keep away from foodstuff. Do not transport with food and feed stuffs.
ICAO/IATA:	Label: Poison
IMO:	Label: Poison
Rail transport:	Not dangerous goods

15) REGULATORY INFORMATION

Risk phases:	R 24, 25, 51,55
Safety phases:	S 1, 2, 13, 20, 21, 24, 35, 46, 49
WHO Classification:	II (moderately hazardous)

This product is classified as a Group 11 Hazardous Substance under the Hazardous Substances Act, Act 15 of 1973, as amended. The product is registered L6190 under the Fertilizers, Farm Feeds, Agricultural and Stock Remedies Act, Act 36, 1974. RSA.

16) OTHER INFORMATION

This product contains a human taste deterrent (denatonium benzoate) and blue warning dye for safety reasons. It is included at a concentration that is repulsive to human taste but is not detected by rats and mice.

The data contained herein is based on current knowledge and information on the date of publication and is given in good faith but without warranty. No responsibility is accepted for errors or omissions or the consequences thereof.