

RECUSE BAIT BLOCK

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: RECUSE BAIT BLOCK
Other identifier: Brodifacoum
Recommended use: Rodenticide
Restrictions on use: Agriculture, Small Scale Farming.

Supplier: Villa Crop Protection (Pty) Ltd.
 Co. Reg. No.: 1992/002474/07
 PO Box 10413
 Aston Manor, 1630, South Africa

Telephone: (011) 396 2233

Fax: (011) 396 4666

Website: www.villacrop.co.za

Emergency telephone numbers:

24 Hr Transport / Spill emergency no:

(Hazcall24) +27 86 044 4411

(Client: Villa Crop Protection)

Griffon Poison Information Centre +27 82 446 8946

(Client: Villa Crop Protection)

Poisoning Emergency telephone numbers:

Griffon Poison Information Centre +27 82 446 8946

Poisons Information Centre +27 861 555 777

2. HAZARDS IDENTIFICATION

UN GHS, Regulation EC 1272/2008 [EU-GHS/CLP]
 EU & SANS 10234:2008

Hazard classes	Hazard categories	H-statements
Health		
Oral	Acute Toxicity 2	H300
Dermal	Acute Toxicity 3	H311
Inhalation	Acute Toxicity 2	H330
Reproduction	Repr. 1A	H360D
Specific target organ toxicant	STOT RE 1	H372
Environment		
Aquatic Chronic	Aquatic Chronic 2	H411

The most important adverse effects:

Physiochemical effects: None known.

Human health effects:

Fatal if swallowed.

Toxic in contact with skin.

Fatal if inhaled.

Causes damage to organs (blood) through prolonged or repeated exposure.

May damage the unborn child.

Label elements:



Signal word: Danger

Hazard statements:

H300: Fatal if swallowed.

H311: Toxic in contact with skin.

H330: Fatal if inhaled.

H360: May damage the unborn child.

H372: Causes damage to organs (blood) through prolonged or repeated exposure.

H411: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P203: Obtain, read and follow all safety instructions before use.

P260: Do not breathe dust, mist, vapours and spray.

P264: Wash hands and face thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P271: Use only outdoors or in a well-ventilated area.

P273: Avoid release to the environment.

P280: Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.

P284: In case of inadequate ventilation wear respiratory protection.

P301+P316: IF SWALLOWED: Get emergency medical help immediately.

P302+P352: IF ON SKIN: Wash with plenty of water and non-abrasive soap.

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P318: IF exposed or concerned, get medical advice.

P330: Rinse mouth.

P361+P364: Take off immediately all contaminated clothing and wash before reuse.

P391: Collect spillage.

P403+P233: Store in a well-ventilated place. Keep container tightly closed.

P405: Store locked up.

P501: Dispose of content/container to suitable landfill in accordance with local regulations.

Other hazards:

None known.

Toxicity:

Classification according to GHS: Category 2

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance / Mixture: Mixture

Composition:

Chemical name	CAS	Conc. (m/m %)	Classification EC 1272/2008
Brodifacoum	56073-10-0	1.25 %	Acute Tox 2 (H300) Acute Tox 3 (H310) Acute Tox 2 (H330)

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			Repr. 1A (H360D) STOT RE 1 (H372) Aquatic Chronic 2 (H411)
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(phytomenadione) therapy as necessary. Other forms of Vitamin K are not effective.

4. FIRST AID MEASURES

Remove the victim from the area of exposure. Wash off remaining material with plenty of water. In the event of any complaints or symptoms, avoid further exposure. **IMMEDIATELY CONSULT A DOCTOR.**

Inhalation: Remove person from contaminated area to fresh air and assist breathing as needed. If breathing has stopped, perform artificial respiration and administer oxygen. Avoid mouth-to-mouth resuscitation. **Seek medical attention immediately.**

Skin: Remove contaminated clothing and shoes. Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. **Immediately obtain medical attention if person feels unwell.**

Eyes: Flush eyes with clean water for at least 15 – 20 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. **Seek medical attention.**

Ingestion: If the product is swallowed, induce vomiting. Do not give anything by mouth to an unconscious person. If the person is alert, rinse mouth thoroughly with water. **Seek medical attention immediately.**

Anticipated acute effects:

Fatal if swallowed.
 Toxic in contact with skin.
 Fatal if inhaled.

May damage the unborn child.

Anticipated delayed effects: Causes damage to organs (blood) through prolonged or repeated exposure.

Most important symptoms / effects:

No symptoms may be apparent for several days if poisoning has occurred. Can kill if swallowed in large quantities. **Brodifacoum** is an anticoagulant chemical, which if taken by humans, domestic animals or pets, will reduce the clotting power of the blood. Nausea and vomiting may occur soon after ingestion, however in some cases effects from exposure may be delayed for days or may not evident unless checked by a physician. Typical overt symptoms of poisoning include bleeding from minor cuts. Haemorrhagic, coma and death may follow in cases of severe poisoning.

Advice to physician:

Repeated oral exposure to this product may cause toxins to accumulate in internal organ and may affect the clotting ability of the blood. In the case where the product is ingested, the amount ingested must be estimated to the physician. In the case of very small amount of product (< 10 grams) being taken, no symptoms may develop but large amount may affect blood clotting times. A physician can assess this and provide Vitamin K1

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media: Extinguish fires with carbon dioxide, dry powder, or alcohol-resistant foam. Water spray can be used for cooling of unaffected stock, but avoid water coming in contact with the product. Use as little water as possible. Use spray or fog. Solid stream may cause spreading. Contain water used for fire fighting for later disposal. Avoid the accumulation of polluted run-off from the site.

Unsuitable Extinguishing Media: Water.

Specific hazards: Hazards or hazardous products arising from combustion

Special fire-fighting procedures: Remove spectators from surrounding area. Isolate the fire area and evacuate all personnel downwind of the fire. Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Remain upwind of fire. Avoid inhaling hazardous vapours and fumes from burning materials. Remove container from fire area if possible and without risk. Do not use high volume water jet, due to contamination risk. Do not scatter the burning material. Water can be used to cool unaffected containers but must be contained for later disposal. Contain fire control agents for later disposal. Avoid pollution of waterways by run-off from the site

Personal protective equipment: Wear NIOSH / MSHA approved self-contained breathing apparatus and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid contact with skin and eyes. Do not breathe in spray mist or fumes. Ventilate area of spill or leak, especially in contained areas.

Protective equipment: Refer to Section 8 for personal protective equipment to be worn during containment and clean-up of a spill involving this product.

Emergency procedures: Alert firefighting personnel, evacuate unprotected personnel and animals.

Environmental Precautions: This product is classified as very toxic / toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment. Any spillages or uncontrolled discharges into watercourses should be reported immediately to the police and the Department of Water / Environmental Affairs.). Prevent spilled product from entering sewers, waterways or ground water.

Methods and Materials for Containment: Contain spilled product by diking area with sand or earth.

Methods and Materials for Clean-up: Contain spilled product by picking up with an electrically protected vacuum cleaner or by hand if chemically protected gloves are worn. Label containers with the contents and dispose of according to local regulations. Do not place spilled

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material back in original container. Do not re-use spilled material. To decontaminate the spill area, tools and equipment, wash with water and suitable detergent. Collect washings and add to the drums already collected. Do not flush spilled material or washings into drains or waterways. See section 13 for disposal considerations).

7. HANDLING AND STORAGE

Handling:

Precautions for safe handling: Fatal if swallowed. Toxic in contact with skin. Fatal if inhaled. Ensure adequate ventilation during handling and use. Do not handle broken packages without protective equipment. Immediately clean up spills that occur during handling. Keep containers closed when not in use. In the case of contact with the product refer to First Aid Measures – Section 4.

General occupational hygiene: Practice good hygiene when using this material. Wash hands before eating, drinking, chewing gum, smoking, using the toilet or applying cosmetics. Worker should shower at the end of each workday. Launder all clothing before it is re-used.

Storage:

Conditions for safe storage: Keep under lock and key and out of reach of unauthorised persons, children and animals. Store in its original, labelled container, tightly closed in an isolated, dry, cool and well-ventilated area. Avoid excess heat. Not to be stored next to foodstuffs, feed and water supplies. Avoid cross contamination with other pesticides and fertilisers.

Incompatible substances and mixtures: Refer to product label.

Packaging material: Plastic containers / bags.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible concentration

Components	Exposure limits	Type of exposure limit	Source
Sugar	10 mg/m ³ (total dust)	Up to 10-hour TWA	www.osha.gov NIOSH REL
Starch	10 mg/m ³ (total dust)	Up to 10-hour TWA	www.osha.gov NIOSH REL

Engineering Controls:

It is essential to provide adequate ventilation. The measures appropriate for a particular worksite depend on how this material is used and on the extent of exposure. Local Exhaust: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OELs or other specified exposure limits. Local exhaust ventilation is preferred. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire and other applicable regulations.

Personal Protective Equipment:

Respiratory Protection: Use a NIOSH approved, air-purifying respirator with cartridges / canisters approved for organic vapours. **This product is fatal if inhaled.**

Hand Protection: The use of chemically protective (impervious) gloves is recommended to prevent against skin contact. **This product is toxic in contact with skin.**

Eye Protection: The use of chemical safety goggles is recommended to prevent against eye contact. Contact lenses are not protective eye devices.

Skin and Body Protection: Employees must wear appropriate protective (impervious) clothing, (rubber) boots, hat and equipment to prevent repeated or prolonged skin contact with this substance.

Emergency eyewash: Where there is any possibility that an employee's eyes may be exposed to this substance, the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Blue solid block

Odour: Odourless.

Odour threshold: Not available.

pH (1% aqueous dilution): Not available.

Melting point: Expected to melt at 50 °C.

Freezing Point: Not available.

Boiling Point: Not available.

Flash Point: Not applicable for solids.

Flammability: Will burn if set alight.

Upper / lower explosion limits: Not available.

Vapour Pressure (mm Hg): Not available.

Relative Vapour Density: Not available.

Density / Relative density: Not available

Solubility: Largely soluble

n-octanol / water partition coefficient: Not available.

Auto-ignition temperature: Not applicable for solids.

Decomposition temperature: Not available.

Viscosity: Not applicable for solids.

10. STABILITY AND REACTIVITY

Chemical stability: This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf-life properties. Avoid storage under extreme temperatures and conditions. Store below 50 °C, preferably below 30 °C, and not for prolonged periods in direct sunlight.

Reactivity: None known.

Possibility of hazardous reactions: Unlikely to occur.

Conditions to avoid: Extreme heat or exposure to flames.

Incompatible materials: Strong oxidizers, strong bases, strong reducing agents.

Hazardous decomposition products: Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water, carbon monoxide poisoning produces

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headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

Acute oral LD ₅₀	Mallard ducks	0.31 mg/kg
	Japanese quail	11.6 mg/kg
	Chickens	4.5 mg/kg
Dietary LD ₅₀ (40d)	Mallard ducks	2.7 mg/kg diet
	Laughing gull	0.72 mg/kg diet

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Calculated according to GHS

Oral LD₅₀ (24h): 32 mg/kg (rat)

Dermal LD₅₀: 252.80 mg/kg (rats)

Inhalation LC₅₀ (4h): 0.24 mg/l (rat)

Skin Irritation / Corrosion: Not calculated.

Eye Damage / Irritation: Not calculated.

Skin Sensitization: Not calculated.

Respiratory Sensitization: Not calculated.

Reproductive cell mutagenicity: Not calculated.

Carcinogenicity: Not calculated.

Reproductive toxicity: May damage the unborn child.

Specific target organ toxicity – single exposure: Not calculated.

Specific target organ toxicity – repeated exposure: Causes damage to organs (blood) through prolonged or repeated exposure.

Aspiration hazard: Not calculated.

Chronic Effects: Not calculated.

POTENTIAL ADVERSE EFFECTS:

No symptoms may be apparent for several days if poisoning has occurred. Can kill if swallowed in large quantities. **Brodifacoum** is an anticoagulant chemical, which if taken by humans, domestic animals or pets, will reduce the clotting power of the blood. Nausea and vomiting may occur soon after ingestion, however in some cases effects from exposure may be delayed for days or may not evident unless checked by a physician. Typical overt symptoms of poisoning include bleeding from minor cuts. Haemorrhagic, coma and death may follow in cases of severe poisoning.

Inhalation: Fatal if inhaled.

Skin: Toxic in contact with skin.

Ingestion: Fatal if swallowed.

12. ECOLOGICAL INFORMATION

ECOTOXICITY DATA:

Active ingredient (Brodifacoum)

Fish:

LC ₅₀ (96 h)	Rainbow trout	0.04 mg/l
	Bluegill sunfish	0.165 mg/l

Daphnia:

LC ₅₀ (48 h)		0.45 mg/l
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Algae:

E _r C ₅₀ (72 h)	<i>Selenastrum capricornutum</i>	>0.27 mg/l
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Birds:

Worms:

LC ₅₀ (14 d)	Earthworms	>994 mg/kg
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ENVIRONMENTAL EFFECTS

Based on information for the formulation / active ingredient(s)

Animals: In mammals, a number of hydroxycoumarins are formed.

Persistence and degradability: Degraded in soils (pH 5.5–8) under aerobic and flooded conditions. DT₅₀>12 w.

Bio-accumulative potential: Not determined.

Mobility in soil: K_{oc} (ave.) 50 000, range 14 000–106 000; K_d (ave.) 1040, range 625–1320. Unlikely to leach; <2% leached >2 cm in laboratory columns. Hydrolytically stable at pH 5, 7 and 9 (20 °C).

Other adverse effects: Not determined.

13. DISPOSAL CONSIDERATIONS

Waste: Open dumping or burning of this pesticide is prohibited. Waste resulting from the use of this product cannot be reused or re-processed. Never pour untreated waste or surplus product into public sewers or where there is any danger of run-off or seepage into water systems. Do not contaminate rivers, dams or any other water sources with the product or used containers. Comply with local legislation applying to waste disposal. The product may be taken to a registered waste disposal site or incineration plant.

Container: Empty containers by inverting the empty container over the spray or mixing tank. Thereafter, rinse the container three times with a volume of water equal to a quarter of that of the container.) Puncture the triple rinsed container and dispose of via an approved collector or recycler (www.croplife.co.za). Do not bury, burn or donate the container to any other parties that may use it as a container for food or beverages. Observe all labelled safeguards until container is destroyed

14. TRANSPORT INFORMATION

UN Number: 3027

Road Transport ADR / ORD:

Class: 6.1

Packaging group: II

UN Proper Shipping Name: COUMARIN

DERIVATIVE PESTICIDE, SOLID, TOXIC (**Brodifacoum 0.05 g/kg**)

Maritime Transport IMDG / IMO:

Class: 6.1

Packaging group: II

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UN Proper Shipping Name: COUMARIN
 DERIVATIVE PESTICIDE, SOLID, TOXIC (**Brodifacoum 0.05 g/kg**)
Marine pollutant (Y/N):
Air Transport IATA / ICAO:
 Class: 6.1
 Packaging group: II
 UN Proper Shipping Name: COUMARIN
 DERIVATIVE PESTICIDE, SOLID, TOXIC (**Brodifacoum 0.05 g/kg**)
Special / Environmental Precautions: Wedge drums tightly to avoid movement.
Transport in bulk: Refer to MARPOL 73/78, Annex II and the IBC code.

END OF DOCUMENT

Compiled: January 2021
Reviewed: July 2022
Revision no.: (3)
Next revision date: July 2027

For detailed information on revisions, contact the Registration holder.

15. REGULATORY INFORMATION

Safety, health and environmental regulations / legislation for the mixture:

OHSA 1993 Regulations for Hazardous Chemical Substances.

Relevant information regarding restrictions: None.

EU regulation: Regulation EC1272/2008 (EU-GHS/CLP)

Other national regulations: None.

Chemical Safety Assessment carried out? No

16. OTHER INFORMATION

Packaging: Packed in 20, 40, 60, 120, 500g & 1, 2, 3, 5, 10, and 20 Kg containers labelled according to South African regulations and guidelines.

Other hazard statements, abbreviations and explanations:

H310: Fatal in contact with skin.

IATA: International Air Transport Association.

IBC: International Bulk Chemical.

ICAO: International Civil Aviation Organization.

IMDG: International Maritime Dangerous Goods

IMO: International Maritime Organization.

LD₅₀ value: The median lethal dose or the amount of a toxic agent that is sufficient to kill 50 percent of a population within a certain period of time.

OEL/RL: Occupational exposure limit-recommended limit.

TWA: Time-weighted average – The average exposure over a specified period, usually a nominal eight hours.

ST/STEL: Short-term exposure limits.

Disclaimer: The information on this sheet is not a specification; it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage and use of the product. It is not applicable to unusual or non-standard uses of the product nor where instructions or recommendations are not followed. All information is given in good faith but without guarantee in respect of accuracy, and no responsibility is accepted for errors and omissions or the consequence thereof.