

MATERIAL SAFETY DATA SHEET

Product: SUPA-KILL Rat & Mouse Poison Bait

Date issued: January 2010

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1. PRODUCT AND COMPANY IDENTIFICATION:

Identification of the product:

Product name: SUPA-KILL Rat and Mouse Poison Bait Registration No. L5198

Uses: Rodenticide

Active ingredient: Bromadiolone – 0.05 g/kg (0.005 %)

Company identification:

Company Name: Scientific Supa-Kill cc

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Republic of South Africa

Tygerberg Poison Information Centre

2. PRODUCT HAZARD IDENTIFICATION:

Main Hazard: Not classified as hazardous due to low concentrations of bromadiolone present in the formulation and Bitrex™ which acts as a deterrent to humans. However, prolonged and/or repeated exposure to small amounts of product can produce cumulative toxicity. Normal safety precautions for handling chemicals must be observed and the label directions adhered to.

Eye contact: May be mildly irritating to the eye on contact, causing redness, pain and blurred vision.

Skin contact: Bromadiolone is not a skin irritant but is absorbed through intact skin. However, poisoning through prolonged skin contact is unlikely because of the nature of the formulation.

Ingestion: Large quantities would have to be ingested to produce a toxic effect. Accumulation of the toxin in the body is possible. Nausea and vomiting may occur soon after ingestion, but several hours/days may elapse before typical features of anticoagulant poisoning become evident; symptoms may include increased tendency to bleed, bruising, nose and gum bleeds, pallor, blood in the urine and faeces, haemorrhage into and around elbow and knee joints.

Inhalation: Due to the nature of this product, inhalation is not considered to be a relevant route of exposure.

Vapour inhalation: Decomposes in a fire to emit toxic fumes.

3. COMPOSITION:

Hazardous component:

Chemical name: bromadiolone

Chemical family: coumarin

Synonym: broprodifacoum

Molecular formula: C₃₀H₂₃BrO₄

Cas No.: 28772-56-7

UN No.: 3027

IUPAC name: 3-[3-(4'-bromobiphenyl-4-yl)-3-hydroxy-1-phenylpropyl]-4-hydroxycoumarin.

Classification: T+: R27/28, T: R48/24/25, N: R50/53

Non-hazardous components:

Bitrex™, cereal and other food-grade ingredients.

4. FIRST AID MEASURES:

	Remove person/s from contaminated area and keep calm and reassured.
Eyes:	Wash eyes with plenty of clean, cold water for at least 15 minutes. If symptoms persist, seek medical advice.
Skin:	Remove contaminated clothing. Rinse the affected skin area with plenty of water and soap. Do not rub skin hard.
Ingestion:	If bait is swallowed SEEK MEDICAL ATTENTION IMMEDIATELY . Do not induce vomiting. However, if medical assistance is not readily available and the ingestion of a large amount of bait was recent, (less than 3 h) induce vomiting by tickling the back of the throat, <u>providing the person is conscious</u> . Take to a doctor or hospital and show the MSDS or the product label.
Note to physician:	Bromadiolone is a delayed-action anticoagulant. Vitamin K1 , administered by intravenous injection, is an antidote . Treat patient symptomatically and supportively. Stomach wash, followed by repeated doses of activated charcoal, may be effective if performed within 4 hours of ingestion. In the case of haemorrhages, prothrombin time should be determined and if elevated, Vitamin K1 must be administered. If necessary, give small transfusions of matched, fresh blood or frozen fresh plasma to restore clotting factors. Continue treatment until prothrombin time normalises. CONTACT A POISON CENTRE FOR ADVICE .

5. FIRE FIGHTING MEASURES:

Extinguishing media:	CO ₂ and dry powder for small fires and foam or water fog for larger fires. (DO NOT use a solid water stream as it may scatter and spread the fire).
Special hazards:	Decomposes in a fire to emit toxic fumes.
Protective clothing:	Personnel involved in a fire situation with this material should wear self-contained breathing apparatus as toxic fumes may be given off. No unprotected person should be allowed in the vicinity.
Further information:	Do not allow run-off from fire fighting to enter drains or water courses. Cool closed containers exposed to fire with water spray.

6. ACCIDENTAL RELEASE MEASURES:

Personal precautions:	Protective clothing to be worn when clearing spillage.
Small and large spills:	Contain and sweep up dry spillage. Collect with a spade and deposit in a secure, properly labelled, closed container. In the case of spillage in water, use barrier devices to prevent dispersion of the product. Adsorb liquid spillage onto vermiculite and treat similarly. Dispose of waste in accordance with local/national regulations. Contact the competent authorities if the situation cannot be controlled.
Environmental precautions:	Prevent further leakage or spillage if safe to do so. Contaminated area should be washed down with cold water and a surfactant/detergent. Do not flush waste water into surface water or sanitary sewer system.

7. HANDLING AND STORAGE

Suitable material:	Store in original, sealed container.
Handling/storage precautions:	Store under lock and key away from children, uninformed persons and animals. Store in a cool, dry place away from sources of heat and ignition. Store away from food, feed, eating utensils and drinking water.

Handling and Storage cont.

Clean protective clothing, used protective clothing and worker's personal clothing, should be kept apart. At the end of each day, all protective clothing should be decontaminated, washed, rinsed and dried. Extra care must be taken when cleaning equipment after use.

Wear rubber gloves and wash hands after handling. Avoid all contact by mouth. Contamination of food, feed, eating utensils and all sources of drinking water, rivers, dams, crops or grazing shall be prevented. Toxic to aquatic organisms, fish and wildlife. Bury all dead rodents and any bait not consumed at end of treatment.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure limits:	None assigned.
Engineering control measures:	Introduce technical measures to lessen exposure. Keep dust to a minimum.
Personal protection:	<p>Respiratory: When handling this material in an emergency, effective respiratory protection must be worn.</p> <p>Hands: Nitrile rubber gloves.</p> <p>Eyes: Close fitting safety goggles or face shield.</p> <p>Skin: Full length protective clothing and boots.</p>

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance:	Wheat grains dyed red
Odour:	No significant odour.
Solubility in water:	Insoluble
Flammability:	Not flammable.
Explosive properties:	None
Other data:	Combustible in case of fire.

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Hazardous decomposition products:	None expected to be formed under normal conditions. Hazardous gases may be produced in a fire.
Situations to avoid:	Prolonged contact with water may reduce the bait's attractiveness to rats.

11. TOXICOLOGICAL INFORMATION

Acute toxicity: (active ingredient)	Rat acute oral LD ₅₀ 1.125 mg/kg	Rabbit dermal LD ₅₀ 2.1 mg/kg
Acute toxicity: (formulation calculated)	Rat acute oral LD ₅₀ 22500 mg/kg	Rabbit dermal LD ₅₀ 42000 mg/kg (unlikely route of exposure).
Carcinogenicity:	Rat inhalation LC ₅₀ 0.0043 mg/l (4h)	
Mutagenicity; teratogenicity and embryotoxic effects:	Rat inhalation LC ₅₀ 86.0 mg/l (4h)	
	Not carcinogenic.	
	Mutagenicity and teratogenicity studies have not shown any mutagenic, embryotoxic or teratogenic effects.	

12. ECOLOGICAL INFORMATION

Aquatic toxicity: (formulation calculated)	Fish: LC ₅₀ (96h) mg/ℓ 28000 rainbow trout; 60000 bluegill sunfish Daphnia: Acute 48 hour EC ₅₀ 40000 mg/ℓ Algae: Acute 72 hour EC ₅₀ growth 340.0 mg/ℓ
Bio-accumulation:	Potential moderate.
Biodegradability:	Slowly degraded in soil.
Mobility:	Relatively immobile in soil.
Persistence in soil:	Aerobic degradation DT ₅₀ 53 days, anaerobic degradation DT ₅₀ 60 days.
Ground or surface water:	Unlikely to be a source of contamination.

13. DISPOSAL CONSIDERATIONS:

Disposal methods:	Residue may be disposed of in accordance with local/national regulations.
Disposal of packaging:	Empty containers to be disposed of in a responsible manner. Do not re-use for any other purpose.

14. TRANSPORT INFORMATION

UN No.	Not regulated
ADR/RID:	Not classified as dangerous goods.
IATA-DGR:	Not classified as dangerous goods.
IMDG:	Not classified as dangerous goods.

15. REGULATORY INFORMATION:

Classification:	T+: Very toxic; T: Toxic; N: Dangerous to the environment
Risk phrases:	R27/28 Very toxic: By skin contact and if swallowed. R48/24/25 Toxic: Danger of serious damage to health by prolonged exposure or skin contact and if swallowed. R50/53 Very toxic to aquatic organisms; may cause long-term adverse effects in the aquatic environment.
Safety phrases:	S 2 Keep out of the reach of children. S13 Keep away from food, drink and animal feed S20/21 When using do not eat, drink or smoke.
National Legislation:	Occupational Health and Safety Act No. 85 of 1993 (amended 2002). National Road Traffic Act No. 93 of 1996. Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act No. 36 of 1947 as amended. Registration No. Republic of South Africa L5198.

16. OTHER INFORMATION:**Exclusion of liability:**

The information provided in this Material Safety Data Sheet has been obtained from sources believed to be reliable. **SCIENTIFIC SUPA-KILL c.c.** provides no warranties, express or implied, and assumes no responsibility for the accuracy and completeness of the data contained herein. This information is offered for your consideration and investigation. The user is responsible to ensure that they have all the data relevant to their use.