

SAFETY DATA SHEET: MAKI BLOCK

1. IDENTIFICATION

Product Name:	MAKI BLOCK WEATHER PROOF RODENTICIDE
Other Names:	N/A
Recommended Use:	Rodenticide.
Distributor:	Key Industries Ltd
Address:	PO Box 65 070 Mairangi Bay, Auckland 0754
Telephone:	09 917 1791
Emergency Phone:	027 4941659
National Poisons Centre:	0800 764 766
Supplier	Distributed by Lipha Tech
Address	78/33 Buckland St, Chippendale NSW 2008
Phone:	0421 946 857

2. HAZARDS IDENTIFICATION

Hazard Classification: NON HAZARDOUS SUBSTANCE. NON DANGEROUS GOODS

Hazards: Although this product is not classified as dangerous, the active ingredient may cause serious damage to health by prolonged exposure. The active ingredient has anti-Vitamin K properties and absorption or ingestion can cause blood coagulation problems including haemorrhagic syndrome

3. COMPOSITION: INFORMATION ON INGREDIENTS

Green-coloured rodenticide block bait.

The active ingredient is Bromadiolone, (CAS number 28772-56-7; Eines number 249-205-9) which is present at a concentration of 50 mg/kg.

The other ingredients are food grade materials.

4. FIRST AID MEASURES

Consult the National Poisons Information Centre 0800 POISON (0800 764 766) or a doctor in every case of suspected chemical poisoning.

POISONING SYMPTOMS

Clinical symptoms: nosebleed, gum bleed, spitting blood, multiple or large haematoma, generally sudden appearance of an unusual visceral pain.

Biological symptoms: blood in the urine, increase in coagulation time.

In all cases of suspected exposure, medical assistance should be sought immediately. Show this data sheet.

See antidotes therapy below. Note that poisoning symptoms may develop over the course of several days.

EYE CONTACT:

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Monitor for symptoms described above.

INHALATION:

- The preparation is a non-dusty solid block. Inhalation is not applicable as a route of exposure

SKIN:

- Remove contaminated clothing. Launder before re-use.
- Rinse skin immediately with soap and water.
- Monitor for symptoms described above.

INGESTION:

- Wash out mouth with plenty of water.
- If swallowed, seek medical advice immediately and show the container/label/safety data sheet.
- Do not induce vomiting unless told to do so by the Poisons Information centre or doctor.
- Do not give anything by mouth to an unconscious person.

MEDICAL ADVICE:

Primary treatment is antidotal therapy rather than clinical assessment. Antidotal therapy: SPECIFIC Vitamin K1 (phytomenadione). Analogues of Vitamin K1 (Vitamin K3: menadione for example) are not very active and should not be used. The efficacy of the treatment should be followed by measuring the coagulation time. The treatment should not be discontinued until the coagulation time returns to normal and REMAINS normal. In case of serious intoxication, it may be necessary to administer, in addition to vitamin K1, blood or frozen fresh plasma or PPSB coagulant blood fraction transfusions.

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5. FIRE FIGHTING MEASURES

There are no unusual fire related hazards. The substance is not highly flammable, is not oxidising or explosive and does not release excess volumes of gases on heating.

EXTINGUISHING MEDIA: Use foam, dry chemical, carbon dioxide, or water spray when fighting fires involving this material. Foam or dry chemical fire extinguishing system is preferred to prevent excessive water run-off.

SPECIAL EXPOSURE HAZARDS: The preparation is not known to produce hazardous decomposition products under normal storage conditions. Normal products of organic combustion will be released under conditions of pyrolysis or combustion.

PROTECTIVE EQUIPMENT FOR FIREFIGHTING: Normal fire fighting protective equipment

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Operators must observe precautions in Handling and Storage and Exposure controls Sections of this sheet.

ENVIRONMENTAL PRECAUTIONS: Cleaning up (see below). In the case of major spillage in water, prevent entry into drains and waterways. If polluted water reaches drainage systems or water courses, immediately inform the appropriate authorities.

METHODS FOR CLEANING UP: Collect or sweep up preparation into containers for recovery and disposal. After removal, clean contaminated area with water and detergent. Avoid the entry of washings into drains or waterways

7. HANDLING AND STORAGE

HANDLING: No special control systems are required.

STORAGE: Store securely. Keep away from food and out of reach of children.

Store in original packaging.

SPECIFIC USES: As rodenticide bait.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS: Occupational Exposure Standards are not set for the active substance.

OCCUPATIONAL EXPOSURE CONTROLS: Although this product is not classified as hazardous, operators should be aware that the active ingredient may cause serious damage to health by prolonged exposure.

RESPIRATORY PROTECTION: The preparation is a solid block and poses no inhalation risk.

HAND PROTECTION: It is recommended that operators wear disposable latex or similar flexible gloves suitable for biological hazards (compliant with EN 455-3). Care should be taken when removing and disposing of gloves. Users should wash hands immediately after handling in all cases.

EYE PROTECTION: The product is a non-dusty, non-irritant solid block and poses no splash or impact risk. Eye protection is not necessary if using according to recommendations.

SKIN PROTECTION: The product is a non-dusty, non-irritant, non-sensitising solid block. Specific protective clothing or other Personal Protective Equipment is not required if using according to recommendations. In case of frequent or prolonged use, monitoring of coagulation time is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Green-solid block
Boiling Point (°C):	Approximately 100
Flammability	Not highly flammable
Flash Point(°C):	Not applicable to solid substances
Oxidizing properties	Not oxidising
Explosivity:	Does not have explosive potential
Water Solubility	Not soluble

10. STABILITY AND REACTIVITY

STABILITY: The preparation is stable under normal ambient conditions.

CONDITIONS TO AVOID: The preparation is not known to undergo hazardous reactions under normal handling conditions.

MATERIALS TO AVOID: The preparation is not known to undergo hazardous reactions in contact with other substances.

HAZARDOUS DECOMPOSITION PRODUCTS: The preparation is not known to produce hazardous decomposition products under normal storage conditions. Normal products of organic combustion will be released under conditions of pyrolysis or combustion.

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11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY: Studies conducted on the preparation
Oral LD50 – Rat > 5000 mg/kg bw: Not classified as toxic.
Dermal LD50- Rat > 2000 mg/kg bw: Not classified as toxic.
Inhalation LC50- Not applicable to solid block preparation.
Eye Irritation – Not classified as irritating.
Skin Irritation – Not classified as irritating.
Sensitization – Not classified as sensitising.

REPEATED DOSE TOXICITY: Studies conducted on Bromadiolone active ingredient 90 day dog: LOAEL = 20 µg/kg bw/day based on haemorrhagic changes seen at necropsy. The substance is therefore classified as having danger of serious damage to health by prolonged exposure

CARCINOGEN DATA: Long term use of the structurally similar active substance warfarin in humans has shown no carcinogenic effects. No evidence of carcinogenicity.

MUTAGENIC DATA: No evidence of mutagenicity.

REPRODUCTIVE TOXICITY: No evidence of reproductive toxicity.

OTHER COMMENTS: The substance is a powerful anticoagulant rodenticide. Its toxicity is due to its anti-Vitamin K activity.

12. ECOLOGICAL INFORMATION

ECOTOXICITY:

Ecological information on Bromadiolone active ingredient

BIRD TOXICITY:

Acute oral LD50: NOEC: 50 mg/kg bw (Bobwhite quail) and < 500 mg/kg bw (Mallard duck)
LD/C50: 138 mg/kg bw (Bobwhite quail) and 1293 mg/kg bw (Mallard duck)
Short term dietary LC50: NOEC: < 10 mg/kg food (Bobwhite quail: 30 days) and < 19 mg/kg food (Mallard duck: 35 days).
LD/C50: 62 mg/kg food (Bobwhite quail: 30 days) and 110 mg/kg food (Mallard duck: 35 days).

ACUTE AQUATIC TOXICITY:

Fish LC50 (96 h.): >1.4 mg/l for *Oncorhynchus mykiss* and 3.0 mg/l for *Lepomis macrochirus*.

Algae EbC50 (72 h.): 0.17 mg/L

Daphnia magna EC50 (48 h.): 2.0 mg/L

The substance is therefore very toxic to aquatic organisms and may cause long-term adverse effects.

TERRESTRIAL TOXICITY:

Earthworm: Acute NOEC: > 9.48 mg/kg soil

Acute LOEC: > 9.48 mg/kg soil

Acute LC50: > 9.48 mg/kg soil

MOBILITY:

The substance is reasonably strongly adsorbed to soil. The amount of the substance adsorbed to soil was 66.0 to 81.2% during the adsorption phase. Bromadiolone and any potential degradation products, even if released indirectly to soil in small quantities, are not likely to move through the soil profile and are unlikely to reach groundwater in significant quantities.

PERSISTENCE AND DEGRADABILITY:

The substance is not considered to be biodegradable under environmentally relevant conditions or during sewage treatment processes. Hydrolysis is not expected to be a significant process in the environment. In aqueous solution, it is rapidly and extensively photolysed with a mean DT50 value of 12.8 minutes. Photolysis led to the formation of carbon dioxide and significant levels of six unidentified degradation products which had either reached plateau levels or were declining at the end of the study (15 days). The substance is quickly degraded in soil under aerobic conditions with an estimated DT50 value between 2.8 and 94.8 days, however degradation led to the formation of unidentified soil metabolites which persisted in significant quantities for >154 days. Bromadiolone is therefore not considered volatile and is not expected to volatilize to air in significant quantities.

BIOACCUMULATIVE POTENTIAL:

The Log Pow is greater than 3 which indicate there is a potential to bioaccumulate.

OTHER ADVERSE EFFECTS: Up to this date no other adverse effects are known

13. DISPOSAL CONSIDERATIONS

Product Disposal

The preparation is a rodenticide and if ingested by domestic or wild animals will cause death. Care should therefore be taken to ensure that disposal methods do not expose the preparation to non-target wild or domestic animals or pets. Dispose of empty container by wrapping in paper, placing in a plastic bag and putting in garbage. Contact your supplier or the Local Authority or a reputable waste disposal company for collection and disposal of unwanted product. The preparation cannot be safely neutralised. Do not release into drains or waterways. Refer to local waste and Environmental regulations.

PACKAGING: The empty container should not be used for any other purpose and should be disposed of considering the comments above preferably by incineration.

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14. TRANSPORT INFORMATION

Not classified as a Dangerous Good

15. REGULATORY INFORMATION

Country/ Region:	New Zealand
ACVM Approval Number:	V009523
ERMA Approval Number:	HSR001603
HSNO Classifications:	6.9B, 9.1D
HSNO Controls:	Hazard Statements: H363 May cause damage to blood/hematopoietic system through prolonged or repeated exposure H412 Harmful to aquatic life with long lasting effects Prevention Statements: P103 Read label before use P260 Do not breathe dust P273 Avoid release to the environment

16. OTHER INFORMATION

Reasons for Issue:

Update format and content to comply with legislation.

HSNO	Hazardous Substances & New Organisms
ASCC	Australian Safety & Compensation Council
MPI	Agricultural Compounds & Veterinary Medicines

The information sourced for the preparation of this document was correct and complete at the time of writing to the best of the supplier's knowledge. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace. The document represents the commitment to the company's responsibilities surrounding the supply of this product, undertaken in good faith. This document should be taken as a safety guide for the product and its recommended uses, but is in no way an absolute authority. Please consult the relevant legislation and regulations governing the use and storage of this type of product. For further information, please contact Key Industries Limited.