

MATERIAL SAFETY DATA SHEET

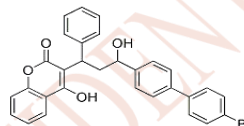
1. Chemical Product Identification

Product Name: Bromadiolone 0.25% TK

Molecular Formula: C₃₀H₂₃BrO₄

Molecular Weight: 527.40

Structural Formula:



Chemical Name:

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

CAS : 3-[3[(4'-bromo-[1,1'-biphenyl]-4-yl)-3- hydroxy-1- phenylpropyl]
-4-hydroxy-2H-1- benzopyran-2 one (9CI)

3-[-[*p*-(*p*-bromophenyl)-hydroxyphenethyl]-benzyl-4-hydroxycoumarin](8CI)

Form : Liquid

Colour : Red

Odour : Characteristic Odor

CAS No. : 28772-56-7

2. Composition / Information On Ingredients

Composition	CAS No.	Content %
Bromadiolone	28772-56-7	0.25
Other ingredients		99.75

3. Hazards Identification

Ingestion: Spontaneous emesis may occur.

Inhalation: The compound is toxic by oral exposure.

Skin: Ecchymoses and hematomas occur due to reduced clotting capacity.

Eyes: Redness may occur.

Hazards: Fire may produce irritating or poisonous gases. Runoff from fire control water may give off poisonous gases. Runoff from fire control or dilution water may cause pollution.

When heated to decomposition, it emits toxic fumes of bromine containing compounds.

4. First Aid Measures

Skin: Remove contaminated clothing and wash exposed area thoroughly with soap and water. A physician should examine the area if irritation or pain persists. Vitamin k1 (phytonadione) - is a specific antidote and should be administered to any patient with a prolonged pt or inr. Menadione (vitamin k3) should not be used.

Eyes: If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

Inhalation: Move patient to fresh air. Monitor for respiratory distress. If cough or difficulty breathing develops, evaluate for respiratory tract irritation, bronchitis, or pneumonitis. Administer oxygen and assist ventilation as required. Treat bronchospasm with beta2 agonist and corticosteroid aerosols.

Ingestion: Emesis is contraindicated in patients with a prolonged pt and inr due to the risk of bleeding following ipecac-induced increased intracranial pressure. Ipecac may be indicated in the home setting for pediatric patients with an accurate history of recent one-time acute ingestion of these rodenticides. Emesis: use is controversial. May be indicated in the prehospital setting if administered soon (within 30 minutes) after substantial ingestion.

5. Fire-Fighting Measures

Flammable/combustible/non-flammable: Combustible.

Flash point: Not applicable.

Fire extinguishing media: Water, dry chemical, foam, carbon dioxide or halones.

Special fire fighting procedures: None required.

Explosion hazard: None.

Fire Fighting: High temperature decomposition or burning in air will lead to the formation of toxic gases, which may include carbon monoxide and trace of bromine and hydrogen bromide, as well as fumes of unchanged rodenticide; breathing apparatus must be worn in fire fighting. Heating of containers will cause a pressure rise, with the risk of bursting and subsequent ignition. Fire-exposed containers should be kept cool by spraying with water. Extinguishes recommended for small fires are carbon dioxide or dry powder; foam or water fog are recommended for larger fires. A water jet should not be used. Run-off water from the fire should be prevented from entering surface-water drains or water sources.

6. Accidental Release Measures

Small spills/leaks: During decontamination, the operator must wear protective clothing, PVC gloves, a face shield, and rubber boots. Dry spillages should be collected at once, by suction, and disposed of as toxic waste according to local legislation. Liquid spillages should be adsorbed onto vermiculite or other inert adsorbent and treated similarly. Contaminated areas should be washed down with cold water containing surfactant; the washings must be prevented from entering surface-water drains.

7. Handling and Storage

Handling: All chemicals should be considered hazardous. Avoid direct physical contact. Use appropriate, approved safety equipment. Untrained individuals should not handle this chemical or its container. Handling should occur in a chemical fume hood.

Storage: Keep in a cool, dry, dark location in a tightly sealed container or cylinder. Keep away from incompatible materials, ignition sources and untrained individuals. Secure and label area. Protect containers/cylinders from physical damage.

8. Exposure Controls/Personal Protection

Personal Protection: Consult label for cautions specific to product being used & for protective clothing for concentrate > 1%.

Respirators: Use NIOSH/MSHA approved respirator appropriate for exposure of concern.

9. Physical and Chemical Properties

Appearance	: Red liquid.
Cis-trans isomer scale(α/β)	: 0.3%
Melting Point	: 196.1-199.0°C (mixture of two diastereoisomers)
Stability	: Thermally stable below 200 °C
pH	: 8.0-11.0

10. Stability and Reactivity

Stability: Stable.

Hazardous polymerisation: Will not occur.

Incompatible materials: None.

Hazardous decomposition products: None.

Conditions to avoid: None.

11. Toxicological Information

Acute oral LD₅₀ for male mice: 1.75 mg/kg

Acute oral LD₅₀ for rat: 1.3mg/kg, mice: 1.75mg/kg

Acute dermal LD₅₀ for rat: 1.71mg/kg

Acute dermal: Acute percutaneous LD₅₀ for rabbits: 1.71 mg/kg.

Inhalation LD₅₀: 0.02mg/l

Skin: Slight to mild skin

EYE: Irritant to the eyes (Rabbits)

Signs of poisoning are those associated with an increased tendency to bleed. In feeding studies on rats, the only effect found has been that associated with anticoagulant action. In a 12-week feeding study on rats, the maximum tolerated dose was 10 µg/kg body weight per day. Mutagenicity and teratogenicity studies have not shown any mutagenic, embryotoxic, or teratogenic effects.

12. Ecological and Ecotoxicological Information

Moderate toxic to fish

LC₅₀ for catfish (48h): 3mg/l

Moderate toxic to aquatic invertebrates

LC₅₀ for Daphnia magna: 8.8mg/l

Low toxic to birds

LD₅₀ for quail: 1600mg/kg

LD₅₀ for mallard duck : 1000mg/kg

General: Bromadiolone is classified as harmful to aquatic organisms and may cause long-term adverse effects in the aquatic environment. However, when used in accordance with instructions given, controlled release of this product is not expected to cause environmental contamination.

13. Disposal Considerations

Disposal of waste: Bait and bait containers must be burned or buried. All rodent bodies must also be burned or buried. Do not place in refuse bins or on rubbish tips.

Disposal of containers: Empty container completely and dispose of safely. Burn or bury in accordance with local authority regulations.

14. Transport Information

Not applicable.

15. Regulatory Information

Not applicable.

16. Other Information

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the product as such. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear. It is the responsibility of persons on receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produce formulations containing this product, it is the recipients sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.

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