



# BROMA KILL

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830  
SDS Ref.: 64209  
Date of issue: 11/12/2019 Version: 1.0

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Mixture  
Product name : BROMA KILL  
Product code : 64209  
Type of product : Biocidal products (e.g. Disinfectants, pest control)  
Product group : Trade product  
Other means of identification : BE2018-0024  
LU144/19/L-100  
FR-2015-0015

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

##### 1.2.1. Relevant identified uses

Intended for general public  
Main use category : Consumer use  
Industrial/Professional use spec : Wide dispersive use  
Use of the substance/mixture : Pesticides, non-agricultural (Biocides)  
Function or use category : Pesticides, non-agricultural (Biocides)

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

Bio Services International  
Jagershoek 13  
8570 Vichte - Belgique-Belgie  
T 00.32.56.77.24.34 Ma-Vr 8-12u /13-17u - F 00.32.56.77.24.35  
[bernard@bioservice.be](mailto:bernard@bioservice.be) - [www.bsi-products.com](http://www.bsi-products.com)

#### 1.4. Emergency telephone number

Emergency number : B 0032.70.245.245//F 0033.(0)383 22 50 50//0033.(0)1.40.05.48.48//N 003130 274 8888.

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH Birmingham	0344 892 0111	

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Specific target organ toxicity — Repeated exposure, Category 2 H373  
Full text of H statements : see section 16

##### Adverse physicochemical, human health and environmental effects

May damage fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure.

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS08

Signal word (CLP) : Warning  
Hazardous ingredients : bromadiolone (ISO); 3- [3-(4'-bromobiphenyl- 4-yl)-3-hydroxy-1-phenylpropyl]-4-hydroxy-2H-chromen-2-one  
Hazard statements (CLP) : H373 - May cause damage to organs (blood) through prolonged or repeated exposure (if swallowed).  
Precautionary statements (CLP) : P314 - Get medical advice/attention if you feel unwell.  
P260 - Do not breathe dust.  
P501 - Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.  
Child-resistant fastening : Not applicable

# BROMA KILL

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Tactile warning : Applicable

### 2.3. Other hazards

This substance/mixture meets the PBT criteria of REACH regulation, annex XIII

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
bromadiolone (ISO); 3- [3-(4'-bromobiphenyl- 4-yl)-3-hydroxy-1-phenylpropyl]-4-hydroxy- 2H-chromen-2-one	(CAS-No.) 28772-56-7 (EC-No.) 249-205-9 (EC Index-No.) 607-716-00-8	0.0025	Repr. 1B, H360D Acute Tox. 1 (Inhalation), H330 Acute Tox. 1 (Dermal), H310 Acute Tox. 1 (Oral), H300 STOT RE 1, H372 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

### Specific concentration limits:

Name	Product identifier	Specific concentration limits
bromadiolone (ISO); 3- [3-(4'-bromobiphenyl- 4-yl)-3-hydroxy-1-phenylpropyl]-4-hydroxy- 2H-chromen-2-one	(CAS-No.) 28772-56-7 (EC-No.) 249-205-9 (EC Index-No.) 607-716-00-8	( 0.0005 =<C < 0.005) STOT RE 2, H373 ( 0.003 =<C < 100) Repr. 1B, H360D ( 0.005 =<C < 100) STOT RE 1, H372

Full text of H-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: Inhalation unlikely.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
First-aid measures after eye contact	: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.
First-aid measures after ingestion	: If swallowed, seek medical advice immediately and show this container or label.

### 4.2. Most important symptoms and effects, both acute and delayed

No additional information available

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Pharmacodynamic action: the active substance of the product is a competitive antagonist of Vitamin K and reduces the hepatic synthesis of Vitamin K-dependent factors. Following ingestion, the product may reduce coagulation and cause internal bleeding. There may be several days between the exposure and the appearance of symptoms. Give Vitamin K1 to the patient, if you notice the characteristic symptoms of bromadiolone poisoning (nasal bleeding, gum bleeding, haematuria (blood in urine), longer coagulation time, hematomas of bigger extent or of greater frequencies, suddenly appearing, unusual visceral pain). If bleeding is not noticeable, the prothrombin time (INR) needs to be measured within 48-72 hours following exposition. If the prothrombin time is greater than 4 hours, the patient needs to get Vitamin K1 intravenously.

Treatment: in case of ingestion of large quantities, induce vomiting, perform gastric lavage and monitor prothrombin activity; if it reduces, give Vitamin K. The efficacy of the treatment needs to be monitored by laboratory measurements.

Contraindications: anticoagulants.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam.

### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

# BROMA KILL

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Mechanically recover the product. Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Hygiene measures : Separate working clothes from town clothes. Launder separately. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.

### 7.3. Specific end use(s)

Pesticides, non-agricultural (Biocides).

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

#### Hand protection:

Protective gloves

#### Eye protection:

Not applicable

#### Skin and body protection:

Wear suitable protective clothing

#### Respiratory protection:

Not applicable

#### Environmental exposure controls:

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Solid  
Colour : red.  
Odour : Sweet.  
Odour threshold : No data available  
pH : No data available  
pH solution :  $\approx 1$  ( $\geq 6.1$ ) g/100ml  
Relative evaporation rate (butylacetate=1) : No data available  
Melting point : No data available  
Freezing point : Not applicable  
Boiling point : No data available  
Flash point : Not applicable  
Auto-ignition temperature : Not applicable  
Decomposition temperature : No data available  
Flammability (solid, gas) : Non flammable.  
Vapour pressure : No data available

# BROMA KILL

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Relative vapour density at 20 °C	: No data available
Relative density	: ≈ 1.16 Not applicable
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: Product is not explosive.
Oxidising properties	: No data available
Explosive limits	: Not applicable

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

#### BROMA KILL

LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified

#### BROMA KILL

LOAEL (animal/male, F0/P)	≈ 0.02 mg/kg bodyweight
NOAEL (animal/male, F0/P)	≈ 0.008 mg/kg bodyweight

STOT-single exposure	: Not classified
STOT-repeated exposure	: May cause damage to organs (blood) through prolonged or repeated exposure (if swallowed).
Aspiration hazard	: Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Not classified

#### BROMA KILL

LC50 fish 1	≈ 8 mg/l
-------------	----------

# BROMA KILL

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

EC50 Daphnia 1	2 mg/l
EC50 72h algae (1)	≈ 0.17 mg/l

### 12.2. Persistence and degradability

#### BROMA KILL

Biodegradation	≈ 0 %
----------------	-------

### 12.3. Bioaccumulative potential

#### BROMA KILL

BCF fish 1	≈ 575
------------	-------

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

#### BROMA KILL

This substance/mixture meets the PBT criteria of REACH regulation, annex XIII

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.2. UN proper shipping name</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.3. Transport hazard class(es)</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.4. Packing group</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

No supplementary information available

### 14.6. Special precautions for user

#### Overland transport

Not applicable

#### Transport by sea

Not applicable

#### Air transport

Not applicable

#### Inland waterway transport

Not applicable

#### Rail transport

Not applicable

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

# BROMA KILL

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Substance(s) are not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC.

### 15.1.2. National regulations

#### Germany

Reference to AwSV : Water hazard class (WGK) nwg, Non-hazardous to water (Classification according to AwSV, Annex 1)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

#### Netherlands

SZW-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : bromadiolone (ISO); 3- [3-(4'-bromobiphenyl- 4-yl)-3-hydroxy-1-phenylpropyl]-4-hydroxy-2H-chromen-2-one is listed

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Full text of H- and EUH-statements:	
Acute Tox. 1 (Dermal)	Acute toxicity (dermal), Category 1
Acute Tox. 1 (Inhalation)	Acute toxicity (inhal.), Category 1
Acute Tox. 1 (Oral)	Acute toxicity (oral), Category 1
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Repr. 1B	Reproductive toxicity, Category 1B
STOT RE 1	Specific target organ toxicity — Repeated exposure, Category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
H300	Fatal if swallowed.
H310	Fatal in contact with skin.
H330	Fatal if inhaled.
H360D	May damage the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

SDS EU (REACH Annex II)

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*