

1. Identification of the substance/preparation and of the company/undertaking**Identification of the substance or preparation**

Product name: MS Rodetox brodi blocks

Application of the substance / the preparation Rodenticide

Identificatie van de onderneming:

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2. Hazards identification**Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008

The product is not classified according to the CLP regulation.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

The product is not classified according to Directive 1999/45/EC

Information concerning particular hazards for human and environment:

The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

Label elements**Labelling according to EU guidelines:**

Observe the general safety regulations when handling chemicals.

The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).

Safety phrases:

- 1/2 Keep locked up and out of the reach of children.
- 13 Keep away from food, drink and animal feedingstuffs.
- 20/21 When using do not eat, drink or smoke.
- 24/25 Avoid contact with skin and eyes.
- 35 This material and its container must be disposed of in a safe way.
- 46 If swallowed, seek medical advice immediately and show this container or label.
- 49 Keep only in the original container.

Special labelling of certain preparations:

To avoid risks to man and the environment, comply with the instructions for use.
Keep out of the reach of children

Other hazards**Results of PBT and vPvB assessment**

PBT: Not applicable.

vPvB: Not applicable.

3. Composition/information on ingredients

Chemical characterization: Mixtures

Description:

Mixture of substances listed below with nonhazardous additions

Product/ingredient name	Identifiers	%	Classification	
			67/548/EEC	Regulation (EC) No. 1272/2008 [CLP]
brodifacoum	CAS: 56073-10-0 EINECS: 259-980-5	0.005	T+ R27/28; T R48/24/25; N R50/53	Acute Tox. 2, H300; Acute Tox. 1, H310; STOT RE 1, H372; Aquatic Acute 1, H400; Aquatic Chronic 1, H410
denatonium benzoate	CAS: 3734-33-6 EINECS: 223-095-2	0.001	Xn R20/22; Xi R38-41 R52/53	Acute Tox. 2, H330; Eye Dam. 1, H318; Acute Tox. 4, H302; Skin Irrit. 2, H315; Aquatic Chronic 3, H412

Additional information:

For the wording of the listed risk phrases refer to section 16.

4. First aid measures

Description of first aid measures

General information:

No special measures required.

After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

After skin contact:

Wash with water and acidic soap.

After eye contact:

Rinse opened eye for several minutes under running water.

After swallowing:

Show the container, label or the safety data sheet of the product.

Information for doctor:

Serious poisoning if swallowed, inhibition of vitamin K, cutaneous and mucosal haemorrhages.

Symptomatology of other systems or apparatus is mainly haemorrhagic.

Indication of any immediate medical attention and special treatment needed

Administer Vitamin K.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing agents:

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Special hazards arising from the substance or mixture

No further relevant information available.

Advice for firefighters**Protective equipment:**

No special measures required.

6. Accidental release measures**Personal precautions, protective equipment and emergency procedures**

Wear protective clothing.

Environmental precautions:

Do not allow to enter sewers/ surface or ground water.

Methods and material for containment and cleaning up:

Pick up mechanically.

Reference to other sections

No dangerous substances are released.

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7. Handling and storage**Handling:****Precautions for safe handling**

No special measures required.

Information about fire - and explosion protection:

No special measures required.

Conditions for safe storage, including any incompatibilities**Storage:****Requirements to be met by storerooms and receptacles:**

No special requirements.

Information about storage in one common storage facility:

Store away from foodstuffs.

Further information about storage conditions:

Protect from frost.

Store under lock and key and out of the reach of children.

Specific end use(s)

No further relevant information available.

8. Exposure controls/Personal protection**Additional information about design of technical facilities:**

No further data; see item 7.

Control parameters**Ingredients with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information:

The lists valid during the making were used as basis.

Exposure controls**Personal protective equipment:****General protective and hygienic measures:**

Keep away from food, drink and animal feedingstuffs.

Do not eat or drink while working.

Respiratory protection:

Not required.

Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:

Not required.

9. Physical and chemical properties**Information on basic physical and chemical properties****General Information****Appearance:**

Form:	Solid
Colour:	Blue
Odour:	Characteristic
Odour threshold:	Not determined.
pH-value:	Not applicable.

Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
Flash point:	Not applicable.
Flammability (solid, gaseous):	Not determined.

Ignition temperature:	
Decomposition temperature:	Not determined.
Self-igniting:	Product is not selfigniting.
Danger of explosion:	Product does not present an explosion hazard.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapour pressure:	Not applicable.
Density:	Not determined.
Relative density	Not determined.
Vapour density	Not applicable.
Evaporation rate	Not applicable.
Solubility in / Miscibility with water:	Insoluble.
Segregation coefficient (n-octanol/water):	Not determined.
Viscosity:	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
Solvent content:	
Organic solvents:	0.0 %
VOC (EC)	0.00 %
Solids content:	100.0 %

Other information

No further relevant information available.

10. Stability and reactivity**Reactivity****Chemical stability****Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

Possibility of hazardous reactions

No dangerous reactions known.

Conditions to avoid

No further relevant information available.

Incompatible materials:

No further relevant information available.

Hazardous decomposition products:

No dangerous decomposition products known.

11. Toxicological information

Information on toxicological effects

Acute toxicity:

LD/LC50 values relevant for classification:

56073-10-0 brodifacoum

Oral	LD50	0.4 mg/kg (rat) male rat 0.2 mg/kg (rabbit) male rabbit
Dermal	LD50	0.25-0.63 mg/kg (rat)

3734-33-6 denatonium benzoate

Oral	LD50	749 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rat)
Inhalative	LC50/4h	0.2 mg/l (rat)

Primary irritant effect:

on the skin:

No irritant effect.

on the eye:

No irritating effect.

Additional toxicological information:

The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.

When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

12. Ecological information

Toxicity

Aquatic toxicity:

56073-10-0 brodifacoum

LC50/96h	0.165 mg/l (bluegill sunfish) 0.051 mg/l (rainbow trout)
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Persistence and degradability

No further relevant information available.

Behaviour in environmental systems:

Bioaccumulative potential

No further relevant information available.

Mobility in soil

No further relevant information available.

Ecotoxicological effects:

Other information:

56073-10-0 brodifacoum

Oral	LD50	4.5 mg/kg (chicken) 0.31 mg/kg (mallard duck) 11.6 mg/kg (japanese quail)
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Additional ecological information:**General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects

No further relevant information available.

13. Disposal considerations**Waste treatment methods****Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Uncleaned packaging:**Recommendation:**

Disposal must be made according to official regulations.

14. Transport information**Land transport ADR/RID (cross-border)**

ADR/RID class: -

Maritime transport IMDG:

IMDG Class: -

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: -

UN "Model Regulation": -

Special precautions for user Not applicable.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

15. Regulatory information**Chemical safety assessment:**

A Chemical Safety Assessment has not been carried out.

16. Other information

Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

H300 Fatal if swallowed.

H302 Harmful if swallowed.

H310 Fatal in contact with skin.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H330 Fatal if inhaled.

H372 Causes damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

R20/22 Harmful by inhalation and if swallowed.

R27/28 Very toxic in contact with skin and if swallowed.

R38 Irritating to skin.

R41 Risk of serious damage to eyes.

R48/24/25 Toxic: danger of serious damage to health by prolonged exposure in contact with skin and if swallowed.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Sources

1. 1999/45/EC Directive, 2006/8/EC Directive and following amendments
2. 67/548/EEC Directive and following amendments
3. 91/155/EEC Directive and following amendments
4. The Merck Index Ed. 10
5. The E-Pesticide Manual 2.1 Version (2001)
6. Regulation (EC) No. 1907/2006 and following amendments