

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) No. 2020/878



Trade name : RATRIM PASTA
Revision date : 10/03/2023
Print date : 19/06/2023

Version : 5.0.0

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

1.1 Product identifier

RATRIM PASTA

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

Relevant identified uses

Rodenticide

1.3 Details of the supplier of the safety data sheet

Supplier

INDUPHARMA SRL

Street : Via Sorgaglia, 40

Postal code/city : 35020 Arre

Telephone : +39 049.53.10.415

Information contact : sds@indupharma.eu

1.4 Emergency telephone number

+39 049.531.0415 from 8.30 to 12.30 and from 14.00 to 17.00.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Repr. 1A ; H360D - Reproductive toxicity : Category 1A ; May damage the unborn child.

STOT RE 2 ; H373 - STOT-repeated exposure : Category 2 ; May cause damage to organs through prolonged or repeated exposure.

2.2 Label elements

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

Hazard pictograms



Health hazard (GHS08)

Signal word

Danger

Hazard components for labelling

BRODIFACOUM ; CAS No. : 56073-10-0

Hazard statements

H360D May damage the unborn child.

H373 May cause damage to organs (blood) through prolonged or repeated exposure.

Precautionary statements

P102 Keep out of reach of children.

P202 Do not handle until all safety precautions have been read and understood.

P280 Wear protective gloves.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P501 Dispose of contents/container to in accordance with national regulations.

2.3 Other hazards

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Brodifacoum is a potential PBT substance.
The mixture does not contain substances listed for endocrine disrupting properties according to REACH Article 59(1).

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous ingredients

BRODIFACOUM ; EC No. : 259-980-5; CAS No. : 56073-10-0; Index No. : 607-172-00-1

Weight fraction : 0,005 %
Classification 1272/2008 [CLP] : Acute Tox. 1 ; H300 Acute Tox. 1 ; H310 Acute Tox. 1 ; H330 Repr. 1A ; H360 STOT RE 1 ; H372 Aquatic Acute 1 ; H400 Aquatic Chronic 1 ; H410
Specific Conc. Limits : STOT RE 1 ; H372: C ≥ 0,02 % • Repr. 1A ; H360D: C ≥ 0,003 % • STOT RE 2 ; H373: C ≥ 0,002 % • (M=10) • (M=10)

DENATONIUM BENZOATE ; REACH No. : 01-2120102843-65-0003 ; EC No. : 223-095-2; CAS No. : 3734-33-6

Weight fraction : 0,001 %
Classification 1272/2008 [CLP] : Eye Dam. 1 ; H318 Acute Tox. 4 ; H302 Acute Tox. 4 ; H332

Additional information

Full text of H- and EUH-statements: see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

Following inhalation

Remove victim out of the danger area. Provide fresh air. When in doubt or if symptoms are observed, get medical advice.

In case of skin contact

Remove contaminated, saturated clothing immediately. Rinse immediately with plenty of water and soap. In case of skin irritation, consult a physician.

After eye contact

Rinse immediately with plenty of water, with eyelids open. Remove contact lenses, if present, and rinse eyes with water at least for 15 minutes. If irritation persists, seek medical attention.

After ingestion

Rinse mouth with water, without swallowing. Seek medical attention or call a Poison Center immediately. Never give anything by mouth to an unconscious person or a person with cramps, if not authorized by a physician. Induce vomit only if authorized by a physician.

4.2 Most important symptoms and effects, both acute and delayed

The following symptoms may occur: Inhibition of Vitamin K, bruise and haemorrhages, haemorrhagic vomit, blood in stools and urine, nosebleed.

4.3 Indication of any immediate medical attention and special treatment needed

Antidote: vitamin K. In accordance with paragraph 4.1. Treat symptomatically. If large amounts of product have been swallowed, administer active carbon or perform a gastric lavage. Call a Poison Center.

SECTION 5: Firefighting measures

This material is combustible, but will not ignite readily.

5.1 Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO₂), extinguishing powder, water haze, foam.

Unsuitable extinguishing media

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Full water jet. Water is inappropriate to extinguish fire, but it is suitable to cool down the containers exposed to the flames.

5.2 Special hazards arising from the substance or mixture

Toxic and irritant gases such as carbon oxide (CO), carbon dioxide (CO₂) and nitrogen oxides may be released by thermal combustion. Avoid breathing gases. Exposure to combustion and decomposition products may be dangerous for health.

5.3 Advice for firefighters

Always wear full fire-protection equipment. If it is safe, remove the products from the fire area or cool down the containers by means full water jets to prevent pressure rise inside the containers. Collect fire-extinction water, which should not be dumped into drains. Avoid contact with product or its container without suitable protective equipment.

Special protective equipment for firefighters

Fire resistant equipment such as self-contained breathing apparatus (EN 137), fire-resistant coverall (EN 469), fire-resistant gloves (EN 659) and firemen boots.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Take up mechanically.

For non-emergency personnel

Keep away people not involved in the emergency operation. Contact the emergency staff on duty or the Fire Department.

For emergency responders

Comply with the internal emergency plan. Wear suitable protection equipment (protective clothing mask, gloves, goggles) to prevent contamination of skin, eyes and personal clothing.

6.2 Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. If the product has reached a waterway, the sewage system or has contaminated soil or vegetation, advise local competent Authorities.

6.3 Methods and material for containment and cleaning up

For containment

Collect the spillage product with non-sparking tools into containers for recovery or disposal.

For cleaning up

The contaminated area should be immediately cleaned with water or cleaning agent. Retain contaminated washing water and dispose it. Provide adequate ventilation.

6.4 Reference to other sections

Further information regarding individual protection and disposal is given at paragraphs 8 and 13.

SECTION 7: Handling and storage



When using do not eat, drink, smoke.

7.1 Precautions for safe handling

Remove all contaminated clothing and safety equipment before accessing eating areas or toilets. Recommended safety equipment is reported at paragraph 8. After contact with skin, wash immediately with water and soap.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep in a cool, well-ventilated place. Keep away from heat, sun-light and humidity.

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Hints on joint storage

Keep away from

Keep away from food, drinks and animal feeding stuff.

Further information on storage conditions

Keep container tightly closed and in a well-ventilated place. Keep locked up and out of reach of children. Keep/Store only in original container.

7.3 Specific end use(s)

Recommendation

Do not re-use original containers. The product cannot be sold loose. The product user is responsible for any damage resulting from improper use.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

BRODIFACOUM ; CAS No. : 56073-10-0

Limit value type (country of origin) : OEL (EC)

Limit value : 0,002 mg/m³

Version :

DNEL-/PNEC-values

DNEL/DMEL

DENATONIUM BENZOATE ; CAS No. : 3734-33-6

Limit value type : DNEL Consumer (systemic)

Exposure route : Inhalation

Exposure frequency : Long-term

Limit value : 0,893 mg/m³

Limit value type : DNEL Consumer (systemic)

Exposure route : Dermal

Exposure frequency : Long-term

Limit value : 0,51 mg/kg/d

Limit value type : DNEL worker (systemic)

Exposure route : Inhalation

Exposure frequency : Long-term

Limit value : 4,99 mg/m³

Limit value type : DNEL worker (systemic)

Exposure route : Dermal

Exposure frequency : Long-term

Limit value : 1,43 mg/kg/d

Limit value type : DNEL worker (systemic)

Exposure route : Oral

Exposure frequency : Long-term

Limit value : 0,51 mg/kg/d

PNEC

BRODIFACOUM ; CAS No. : 56073-10-0

Limit value type : PNEC (Aquatic, freshwater)

Limit value : 0,00004 mg/l

Limit value type : PNEC (Sediment, freshwater)

Limit value : 0,043 mg/kg

Limit value type : PNEC (Soil)

Limit value : 0,88 mg/kg

Limit value type : PNEC (Secondary poisoning)

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Limit value : 0,00001 mg/kg
Limit value type : PNEC (Sewage treatment plant)
Limit value : 0,0058 mg/l
DENATONIUM BENZOATE ; CAS No. : 3734-33-6
Limit value type : PNEC (Aquatic, freshwater)
Limit value : 0,1 mg/l
Limit value type : PNEC (Aquatic, marine water)
Limit value : 10 µg/l
Limit value type : PNEC (Sediment, freshwater)
Limit value : 25 mg/kg
Limit value type : PNEC (Sediment, marine water)
Limit value : 2,5 mg/kg
Limit value type : PNEC (Soil)
Limit value : 4,95 mg/kg

8.2 Exposure controls

Appropriate engineering controls

If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means.

Personal protection equipment



Eye/face protection

Suitable eye protection

None, if used as directed.

Skin protection

Hand protection

Wear suitable protective gloves (DIN EN 374). Replace in case of internal contamination, break or if external contamination cannot be removed. Wash hands before eating, drinking or smoking.

Body protection

None, if used as directed.

Respiratory protection

In case of use in closed or poorly ventilated environments, we recommend the use of a mask equipped with suitable filters.

Thermal hazards

No information available.

Environmental exposure controls

No information available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : solid

Colour : pigmented

Odour : characteristic

Safety characteristics

Melting point/freezing point : (1013 hPa)

No data available

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Freezing point :	(1013 hPa)	No data available
Initial boiling point and boiling range :	(1013 hPa)	No data available
Decomposition temperature :	(1013 hPa)	No data available
Flash point :		No data available
Auto-ignition temperature :		No data available
Lower explosion limit :		No data available
Upper explosion limit :		No data available
Vapour pressure :	(50 °C)	No data available
Density :	(20 °C)	No data available
Relative density :	(20 °C)	No data available
Solvent separation test :	(20 °C)	No data available
pH :		No data available
log P O/W :		No data available
Viscosity :	(20 °C)	No data available
Odour threshold :		No data available
Relative vapour density :	(20 °C)	No data available
Evaporation rate :		No data available

9.2 Other information

None

SECTION 10: Stability and reactivity

10.1 Reactivity

Stable under recommended storage and handling conditions(See section 7).

10.2 Chemical stability

The product is stable if stored under normal ambient temperature and pressure conditions.

10.3 Possibility of hazardous reactions

No information available.

10.4 Conditions to avoid

To prevent degradation, do not expose to high temperatures or frost.

10.5 Incompatible materials

None known.

10.6 Hazardous decomposition products

The burning of the product may release toxic gasses dangerous for the human health.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Acute oral toxicity

Parameter :	LD50 (BRODIFACOUM ; CAS No. : 56073-10-0)
Exposure route :	Oral
Species :	Rat
Effective dose :	0,4 mg/kg
Parameter :	LD50 (DENATONIUM BENZOATE ; CAS No. : 3734-33-6)
Exposure route :	Oral
Species :	Rat
Effective dose :	749 mg/kg

Acute dermal toxicity

Parameter :	LD50 (BRODIFACOUM ; CAS No. : 56073-10-0)
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Exposure route : Dermal
Species : Rat
Effective dose : 3,16 mg/kg

Acute inhalation toxicity

Parameter : LC50 (BRODIFACOUM ; CAS No. : 56073-10-0)
Exposure route : Inhalation (dust/mist)
Species : Rat
Effective dose : 0,00305 mg/l
Exposure time : 4 h
Parameter : LC50 (DENATONIUM BENZOATE ; CAS No. : 3734-33-6)
Exposure route : Inhalation (dust/mist)
Species : Rat
Effective dose : 0,2 mg/l
Exposure time : 4 h

Corrosion

Skin corrosion/irritation

Available data show no specific hazards.

Serious eye damage/eye irritation

Available data show no specific hazards.

Irritation to respiratory tract

Available data show no specific hazards.

Respiratory or skin sensitisation

Skin sensitisation

Available data show no specific hazards.

Sensitisation to the respiratory tract

Available data show no specific hazards.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Brodifacoum is classified as Repr. 1A according to Regulation EC 1272/2008 (CLP).

Carcinogenicity

Available data show no specific hazards.

Germ cell mutagenicity

Available data show no specific hazards.

Reproductive toxicity

May damage the unborn child.

Brodifacoum is classified as Repr. 1A according to Regulation EC 1272/2008 (CLP).

STOT-single exposure

STOT SE 1 and 2

Parameter : NOAEL(C) (BRODIFACOUM ; CAS No. : 56073-10-0)
Effective dose : 0,002 mg/kg/die
Parameter : LOAEL(C) (BRODIFACOUM ; CAS No. : 56073-10-0)
Exposure route : Mather toxicity
Species : Rabbit
Effective dose : 0,004 mg/kg/die

STOT SE 3

Parameter : NOEL(C) (BRODIFACOUM ; CAS No. : 56073-10-0)
Species : Rat
Effective dose : 0,04 mg/kg

STOT-repeated exposure

May cause damage to organs (blood) through prolonged or repeated exposure.

Aspiration hazard

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Available data show no specific hazards.

11.2 Information on other hazards

The mixture does not contain substances listed for endocrine disrupting properties according to REACH Article 59(1).

SECTION 12: Ecological information

Do not allow uncontrolled discharge of product into the environment.

12.1 Toxicity

Aquatic toxicity

Acute (short-term) fish toxicity

Parameter : LC50 (BRODIFACOUM ; CAS No. : 56073-10-0)
Species : Oncorhynchus mykiss (Rainbow trout)
Effective dose : 0,042 mg/l
Exposure time : 96 h

Acute (short-term) toxicity to crustacea

Parameter : EC50 (BRODIFACOUM ; CAS No. : 56073-10-0)
Species : Daphnia magna (Big water flea)
Effective dose : 0,25 mg/l
Exposure time : 48 h

Acute (short-term) toxicity to aquatic algae and cyanobacteria

Parameter : ErC50 (BRODIFACOUM ; CAS No. : 56073-10-0)
Species : Selenastrum capricornutum
Effective dose : 0,04 mg/l
Exposure time : 72 h

Terrestrial toxicity

Toxicity to birds

Acute and subchronic bird toxicity

Parameter : LD50 (BRODIFACOUM ; CAS No. : 56073-10-0)
Species : Coturnix coturnix japonica (japanese quail)
Effective dose : 19 mg/kg

Bird reproduction toxicity

Parameter : NOEC (BRODIFACOUM ; CAS No. : 56073-10-0)
Species : Bird reproduction toxicity
Effective dose : > 0,01 mg/kg

12.2 Persistence and degradability

Abiotic degradation

Parameter : Photo-chemical elimination (BRODIFACOUM ; CAS No. : 56073-10-0)
Species : Photolysis
Degradation rate : 0,083 g

12.3 Bioaccumulative potential

Parameter : Partition coefficient: n-octanol/water (BRODIFACOUM ; CAS No. : 56073-10-0)
Value : 10000

12.4 Mobility in soil

Adsorption

Parameter : Mobility in soil (BRODIFACOUM ; CAS No. : 56073-10-0)
Effective dose : 50000

12.5 Results of PBT and vPvB assessment

Brodifacoum is a potential PBT substance.

12.6 Endocrine disrupting properties

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The mixture does not contain substances listed for endocrine disrupting properties according to REACH Article 59(1).

12.7 Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product/Packaging disposal

Dispose of waste according to applicable legislation. Do not allow to enter into surface water or drains. Contaminated packages must be completely emptied and rinsed before disposal in accordance to local regulations.

Waste treatment options

Appropriate disposal / Product

Dispose according to legislation.

Appropriate disposal / Package

Dispose according to legislation.

SECTION 14: Transport information

The product is not dangerous in accordance to land transport regulation (A.D.R./R.I.D.), maritime transport regulation (IMDG) and air transport regulation (IATA).

14.1 UN number or ID number

No dangerous good in sense of these transport regulations.

14.2 UN proper shipping name

No dangerous good in sense of these transport regulations.

14.3 Transport hazard class(es)

No dangerous good in sense of these transport regulations.

14.4 Packing group

No dangerous good in sense of these transport regulations.

14.5 Environmental hazards

No dangerous good in sense of these transport regulations.

14.6 Special precautions for user

None

14.7 Maritime transport in bulk according to IMO instruments

No information available.

SECTION 15: Regulatory information

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

EU legislation

The classification was elaborated according to the calculation method of the Regulation (EC) No. 1272/2008 [CLP]. Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) and amendments: Regulation (CE) No. 453/2010, Regulation (CE) No. 830/2015 and Regulation (CE) No. 878/2020. Labelling according to Regulation (EC) No. 1272/2008 [CLP].

15.2 Chemical safety assessment

No information available.

SECTION 16: Other information

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16.1 Indication of changes

Sections 1, 2, 3, 8, 11, 12, 15, 16.

16.2 Abbreviations and acronyms

LEGENDA:

ADR:	Accord européen relative au transport international des marchandises dangereuses par route
ASTM:	ASTM International, originariamente nota come American Society for Testing and Materials (ASTM)
EINECS:	European Inventory of Existing Commercial Chemical Substances
EC50:	Effective Concentration 50
LC50:	Lethal Concentration 50
IC50:	Inhibitor Concentration 50
NOEL:	No Observed Effect Level
DNEL:	Derived No Effect Level
DMEL:	Derived Minimum Effect Level
CLP:	Classification, Labelling and Packaging
CSR:	Chemical Safety Report
LD50:	Lethal Dose 50
IATA:	International Air Transport Association
ICAO:	International Civil Aviation Organization
Codice IMDG:	International Maritime Dangerous Goods code
PBT:	Persistent, bioaccumulative and toxic
RID:	Règlement concernant le transport International ferroviaire des marchandises Dangereuses
STEL:	Short term exposure limit
TLV:	Threshold limit value
TWA:	Time Weighted Average
UE:	European Union
vPvB:	Very persistent very bioaccumulative
N.D.:	No data available.
N.A.:	Not applicable
VwVwS.:	Text of Administrative Regulation on the Classification of Substances hazardous to waters into Water Hazard Classes (Verwaltungsvorschrift wassergefährdende Stoffe – VwVwS)

16.3 Key literature references and sources for data

Data taken from the Safety Data Sheets of Suppliers.

16.4 Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

The classification was carried out according to the calculation method of the Regulation (EC) No. 1272/2008 [CLP].

16.5 Relevant H- and EUH-phrases (Number and full text)

H300	Fatal if swallowed.
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H360	May damage fertility or the unborn child.
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.

16.6 Training advice

None

16.7 Additional information

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None

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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