1. Identification

Product identifier

**Ridak® Pasta**

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

Relevant identified uses: rodenticide, biocide

Details of the supplier of the safety data sheet

Company:
BASF SE
67056 Ludwigshafen
GERMANY
Operating Division Crop Protection

Telephone: +49 621 60-27777
E-mail address: Produktinformation-Pflanzenschutz@basf.com

Emergency telephone number

International emergency number:
Telephone: +49 180 2273-112

2. Hazards Identification

Classification of the substance or mixture

According to UN GHS criteria

| STOT RE (Blood) 2 |

For the classifications not written out in full in this section the full text can be found in section 16.
Label elements

Globally Harmonized System (GHS)

Pictogram:

Signal Word: Warning

Hazard Statement:
H373 May cause damage to organs (Blood) through prolonged or repeated exposure.

Precautionary Statement:
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.

Precautionary Statements (Prevention):
P260 Do not breathe dust.

Precautionary Statements (Response):
P314 Get medical advice/attention if you feel unwell.

Precautionary Statements (Disposal):
P501 Dispose of contents/container to hazardous or special waste collection point.

According to UN GHS criteria

| Hazard determining component(s) for labelling: DIFENACOUM

Other hazards

According to UN GHS criteria

See section 12 - Results of PBT and vPvB assessment.

This product is hazardous to mammals, including domesticated animals, and birds. Exposure of non-target animals should be prevented.

3. Composition/Information on Ingredients

Substances
Not applicable

Mixtures

Chemical nature
rodenticide, biocide

Hazardous ingredients (GHS)
According to UN GHS criteria

| 3-(3-biphenyl-4-yl)-1,2,3,4-tetrahydro-1-naphthyl)-4-hydroxycoumarin; difenacoum |
|---------------------------------|----------------------------------|
| Content (W/W): 0.005 %          | Acute Tox. 1 (Inhalation - dust) |
| CAS Number: 56073-07-5          | Acute Tox. 1 (oral)               |
| EC-Number: 259-978-4            | Acute Tox. 1 (dermal)             |
| INDEX-Number: 607-157-00-X      | STOT RE (Blood) 1                 |
|                                 | Aquatic Acute 1                   |
|                                 | Aquatic Chronic 1                 |
|                                 | M-factor acute: 10                |
|                                 | M-factor chronic: 10              |
|                                 | H310, H330, H300, H372, H400, H410|

Specific concentration limit:
STOT RE 1: >= 0.02 %
STOT RE 2: >= 0.002 %

<table>
<thead>
<tr>
<th>Wheat flour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content (W/W): &lt; 65 %</td>
</tr>
<tr>
<td>CAS Number: 130498-22-5</td>
</tr>
<tr>
<td>EC-Number: 310-127-6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sucrose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content (W/W): &lt; 20 %</td>
</tr>
<tr>
<td>CAS Number: 57-50-1</td>
</tr>
<tr>
<td>EC-Number: 200-334-9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Starch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content (W/W): &lt; 20 %</td>
</tr>
<tr>
<td>CAS Number: 9005-25-8</td>
</tr>
<tr>
<td>EC-Number: 232-679-6</td>
</tr>
</tbody>
</table>

| Propane-1,2-diol |
4. First-Aid Measures

**Description of first aid measures**

- Remove contaminated clothing.

  - If inhaled:
    - Keep patient calm, remove to fresh air, seek medical attention.

  - On skin contact:
    - Wash thoroughly with soap and water.

  - On contact with eyes:
    - Wash affected eyes for at least 15 minutes under running water with eyelids held open.

  - On ingestion:
    - Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

**Most important symptoms and effects, both acute and delayed**

**Symptoms:** coagulation disorders

- Increased tendency to bleed.

- In severe cases, massive bleeding from internal organs may result in circulatory shock, which could prove fatal.

- The onset of symptoms is delayed for up to 4 days after uptake.

**Hazards:** The substance / product is an anticoagulant rodenticide with a coumarin-type mode of action.

**Indication of any immediate medical attention and special treatment needed**

**Treatment:** Symptomatic treatment (decontamination, vital functions).

**Antidote:** Vitamin K1 preparation as antidote.

5. Fire-Fighting Measures

**Extinguishing media**

Suitable extinguishing media:

- water spray, dry powder, foam
Unsuitable extinguishing media for safety reasons:
carbon dioxide, water jet

**Special hazards arising from the substance or mixture**
carbon monoxide, Carbon dioxide, nitrogen oxides, chlorine compounds
The substances/groups of substances mentioned can be released in case of fire.

**Advice for fire-fighters**
Special protective equipment:
Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:
Keep containers cool by spraying with water if exposed to fire. In case of fire and/or explosion do not breathe fumes. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

### 6. Accidental Release Measures

**Personal precautions, protective equipment and emergency procedures**
Use personal protective clothing. Avoid contact with the skin, eyes and clothing. Avoid dust formation.

**Environmental precautions**
Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater.

**Methods and material for containment and cleaning up**
For small amounts: Dispose of absorbed material in accordance with regulations. For large amounts: Sweep/shovel up. Avoid raising dust. Collect waste in suitable containers, which can be labeled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. Dispose of absorbed material in accordance with regulations. Wear suitable protective equipment.

**Reference to other sections**
Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

### 7. Handling and Storage

**Precautions for safe handling**
No special measures necessary if stored and handled correctly. Ensure thorough ventilation of stores and work areas. When using do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift.
Do not apply in the open – cover bait points or use bait boxes. If dead and/or dying rats or mice are found during and after the control program, these must be cleared away immediately in order to avoid secondary poisoning phenomena.

Protection against fire and explosion:
Avoid dust formation. Dust can form an explosive mixture with air. Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy.

**Conditions for safe storage, including any incompatibilities**
Segregate from foods and animal feeds.
Further information on storage conditions: Keep away from heat. Protect from direct sunlight.

**Specific end use(s)**
For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

### 8. Exposure Controls/Personal Protection

**Control parameters**

**Components with occupational exposure limits**

<table>
<thead>
<tr>
<th>Component</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sucrose</td>
<td>57-50-1</td>
</tr>
<tr>
<td>Starch</td>
<td>9005-25-8</td>
</tr>
<tr>
<td>Wheat flour</td>
<td>130498-22-5</td>
</tr>
</tbody>
</table>

**Exposure controls**

**Personal protective equipment**

Respiratory protection:
Suitable respiratory protection for higher concentrations or long-term effect: Particle filter with medium efficiency for solid and liquid particles (e.g. EN 143 or 149, Type P2 or FFP2)

Hand protection:
Protective gloves (EN 374) are required for the safe handling of this product and are also recommended for protection against rodent-borne diseases. e.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), polyvinylchloride (0.7 mm) and other Manufacturer's directions for use should be observed because of great diversity of types.

Eye protection:
Required when there is a risk of eye contact., Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:
Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).
General safety and hygiene measures
Wearing of closed work clothing is recommended. Handle in accordance with good industrial hygiene and safety practice. Store work clothing separately. Keep away from food, drink and animal feeding stuffs.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Amorphous, solid</td>
</tr>
<tr>
<td>Colour</td>
<td>blue</td>
</tr>
<tr>
<td>Odour</td>
<td>mild, sweetish, of lemon</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not determined due to potential health hazard by inhalation.</td>
</tr>
<tr>
<td>pH value</td>
<td>insoluble, The product has not been tested.</td>
</tr>
<tr>
<td>Melting point</td>
<td>&gt; 100 °C</td>
</tr>
<tr>
<td>Boiling point</td>
<td>The product is a non-volatile solid.</td>
</tr>
<tr>
<td>Flash point</td>
<td>Non-flammable., The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>not applicable</td>
</tr>
<tr>
<td>Flammability</td>
<td>not highly flammable</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>negligible, Information based on the main components.</td>
</tr>
</tbody>
</table>
10. Stability and Reactivity

Reactivity
No hazardous reactions if stored and handled as prescribed/indicated.

Chemical stability
The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions
No hazardous reactions if stored and handled as prescribed/indicated.

Conditions to avoid
See MSDS section 7 - Handling and storage.

Incompatible materials
Substances to avoid:
strong bases, strong acids, strong oxidizing agents

Hazardous decomposition products
11. Toxicological Information

Information on toxicological effects

Acute toxicity

Assessment of acute toxicity:
Virtually nontoxic after a single ingestion. Virtually nontoxic by inhalation. Virtually nontoxic after a single skin contact.

Experimental/calculated data:
LD₅₀ rat (oral): 48.000 mg/kg

(by inhalation): The product has not been tested. The statement has been derived from the properties of the individual components.

LD₅₀ rat (dermal): > 2.000 mg/kg
No mortality was observed. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Information on: 3-(3-biphenyl-4-yl-1,2,3,4-tetrahydro-1-naphthyl)-4-hydroxycoumarin; difenacoum
Experimental/calculated data:
LC₅₀ rat (by inhalation): 0.00346 - 0.005848 mg/l 4 h (OECD Guideline 403)
An aerosol was tested.

Irritation

Assessment of irritating effects:
Not irritating to the eyes. Not irritating to the skin. The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: 3-(3-biphenyl-4-yl-1,2,3,4-tetrahydro-1-naphthyl)-4-hydroxycoumarin; difenacoum
Experimental/calculated data:
Skin corrosion/irritation rabbit: non-irritant (Guideline 92/69/EEC, B.4)

Serious eye damage/irritation rabbit: non-irritant (Guideline 92/69/EEC, B.5)

Respiratory/Skin sensitization

Assessment of sensitization:
There is no evidence of a skin-sensitizing potential. The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: 3-(3-biphenyl-4-yl)-1,2,3,4-tetrahydro-1-naphthyl)-4-hydroxycoumarin; difenacoum

Experimental/calculated data:
Guinea pig maximization test guinea pig: Non-sensitizing. (Guideline 92/69/EEC, B.6)

Germ cell mutagenicity

Assessment of mutagenicity:
The product has not been tested. The statement has been derived from the properties of the individual components. Mutagenicity tests revealed no genotoxic potential.

Carcinogenicity

Assessment of carcinogenicity:
The product has not been tested. The statement has been derived from the properties of the individual components. The results of various animal studies gave no indication of a carcinogenic effect.

Reproductive toxicity

Assessment of reproduction toxicity:
The product has not been tested. The statement has been derived from the properties of the individual components. The results of animal studies gave no indication of a fertility impairing effect.

Developmental toxicity

Assessment of teratogenicity:
The product has not been tested. The statement has been derived from the properties of the individual components. Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.

Specific target organ toxicity (single exposure)

Assessment of STOT single:
Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

Remarks: The product has not been tested. The statement has been derived from the properties of the individual components.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:
The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: 3-(3-biphenyl-4-yl)-1,2,3,4-tetrahydro-1-naphthyl)-4-hydroxycoumarin; difenacoum
Assessment of repeated dose toxicity:
Repeated exposure to small quantities may affect certain organs. Damages the coagulation system.

Aspiration hazard
No aspiration hazard expected. The product has not been tested. The statement has been derived from the properties of the individual components.

Other relevant toxicity information
Misuse can be harmful to health.

12. Ecological Information

Toxicity
Assessment of aquatic toxicity:
There is a high probability that the product is not acutely harmful to aquatic organisms. The product has not been tested. The statement has been derived from the properties of the individual components.

*Information on: 3-(3-biphenyl-4-yl)-1,2,3,4-tetrahydro-1-naphthyl)-4-hydroxycoumarin; difenacoum
Toxicity to fish:*
*LC50 (96 h) 0,064 mg/l, Oncorhynchus mykiss (Directive 92/69/EEC, C.1)*

*Information on: 3-(3-biphenyl-4-yl)-1,2,3,4-tetrahydro-1-naphthyl)-4-hydroxycoumarin; difenacoum
Aquatic invertebrates:*
*EC50 (48 h) 0,52 mg/l, Daphnia magna (Directive 92/69/EEC, C.2)*

*Information on: 3-(3-biphenyl-4-yl)-1,2,3,4-tetrahydro-1-naphthyl)-4-hydroxycoumarin; difenacoum
Aquatic plants:*
*EC50 (72 h) 0,8 mg/l (growth rate), Selenastrum capricornutum (Guideline 92/69/EEC, C.3)*

*No observed effect concentration (72 h) 0,25 mg/l (growth rate), Pseudokirchneriella subcapitata (Guideline 92/69/EEC, C.3)*

Persistence and degradability
Assessment biodegradation and elimination (H2O):
The product has not been tested. The statement has been derived from the properties of the individual components.

*Information on: 3-(3-biphenyl-4-yl)-1,2,3,4-tetrahydro-1-naphthyl)-4-hydroxycoumarin; difenacoum
Assessment biodegradation and elimination (H2O):*
*Not readily biodegradable (by OECD criteria).*
Bioaccumulative potential

Assessment bioaccumulation potential:
The product has not been tested. The statement has been derived from the properties of the individual components.

*Information on: 3-(3-biphenyl-4-yl-1,2,3,4-tetrahydro-1-naphthyl)-4-hydroxcoumarin; difenacoum*
Assessment bioaccumulation potential:
Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is possible.

Mobility in soil

Assessment transport between environmental compartments:
Adsorption in soil: The product has not been tested. The statement has been derived from the properties of the individual components.

*Information on: 3-(3-biphenyl-4-yl-1,2,3,4-tetrahydro-1-naphthyl)-4-hydroxcoumarin; difenacoum*
Assessment transport between environmental compartments:
Adsorption in soil: Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.

Results of PBT and vPvB assessment

The product contains a potential PBT substance.
The product contains a potential vPvB substance.

*Information on: 3-(3-biphenyl-4-yl-1,2,3,4-tetrahydro-1-naphthyl)-4-hydroxcoumarin; difenacoum*
Fulfills the criteria for PBT and vPvB

Other adverse effects

The product does not contain substances that are listed in the Montreal Protocol on substances that deplete the ozone layer.

Additional information

Other ecotoxicological advice:
Must not be discharged into the environment.

13. Disposal Considerations

Waste treatment methods
Must be disposed of or incinerated in accordance with local regulations.

Contaminated packaging:
Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

14. Transport Information

**Land transport**

ADR

- UN number: Not classified as a dangerous good under transport regulations
- UN proper shipping name: Not applicable
- Transport hazard class(es): Not applicable
- Packing group: Not applicable
- Environmental hazards: Not applicable
- Special precautions for user: None known

RID

- UN number: Not classified as a dangerous good under transport regulations
- UN proper shipping name: Not applicable
- Transport hazard class(es): Not applicable
- Packing group: Not applicable
- Environmental hazards: Not applicable
- Special precautions for user: None known

**Inland waterway transport**

ADN

- UN number: Not classified as a dangerous good under transport regulations
- UN proper shipping name: Not applicable
- Transport hazard class(es): Not applicable
- Packing group: Not applicable
- Environmental hazards: Not applicable
- Special precautions for user: None known

Transport in inland waterway vessel
Not evaluated
**Sea transport**

IMDG

| UN number: | Not classified as a dangerous good under transport regulations |
| UN proper shipping name: | Not applicable |
| Transport hazard class(es): | Not applicable |
| Packing group: | Not applicable |
| Environmental hazards: | Not applicable |
| Special precautions for user | None known |

**Air transport**

IATA/ICAO

| UN number: | Not classified as a dangerous good under transport regulations |
| UN proper shipping name: | Not applicable |
| Transport hazard class(es): | Not applicable |
| Packing group: | Not applicable |
| Environmental hazards: | Not applicable |
| Special precautions for user | None known |

**UN number**

See corresponding entries for “UN number” for the respective regulations in the tables above.

**UN proper shipping name**

See corresponding entries for “UN proper shipping name” for the respective regulations in the tables above.

**Transport hazard class(es)**

See corresponding entries for “Transport hazard class(es)” for the respective regulations in the tables above.

**Packing group**

See corresponding entries for “Packing group” for the respective regulations in the tables above.

**Environmental hazards**

See corresponding entries for “Environmental hazards” for the respective regulations in the tables above.

**Special precautions for user**
See corresponding entries for “Special precautions for user” for the respective regulations in the tables above.

Transport in bulk according to Annex II of MARPOL and the IBC Code

<table>
<thead>
<tr>
<th>Regulation</th>
<th>Not evaluated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shipment approved</td>
<td>Not evaluated</td>
</tr>
<tr>
<td>Pollution name</td>
<td>Not evaluated</td>
</tr>
<tr>
<td>Pollution category</td>
<td>Not evaluated</td>
</tr>
<tr>
<td>Ship Type</td>
<td>Not evaluated</td>
</tr>
</tbody>
</table>

15. Regulatory Information

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

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

16. Other Information

Consult the product label for additional details.

Full text of classifications, hazard symbols and hazard statements, if mentioned in section 2 or 3:

<table>
<thead>
<tr>
<th>STOT RE</th>
<th>Specific target organ toxicity — repeated exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox.</td>
<td>Acute toxicity</td>
</tr>
<tr>
<td>Aquatic Acute</td>
<td>Hazardous to the aquatic environment - acute</td>
</tr>
<tr>
<td>Aquatic Chronic</td>
<td>Hazardous to the aquatic environment - chronic</td>
</tr>
<tr>
<td>H310</td>
<td>Fatal in contact with skin.</td>
</tr>
<tr>
<td>H330</td>
<td>Fatal if inhaled.</td>
</tr>
<tr>
<td>H300</td>
<td>Fatal if swallowed.</td>
</tr>
<tr>
<td>H372</td>
<td>Causes damage to organs (Blood) through prolonged or repeated exposure.</td>
</tr>
<tr>
<td>H400</td>
<td>Very toxic to aquatic life.</td>
</tr>
<tr>
<td>H410</td>
<td>Very toxic to aquatic life with long lasting effects.</td>
</tr>
</tbody>
</table>

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

Vertical lines in the left hand margin indicate an amendment from the previous version.