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

1.1. Product identifier

NEOSOREXA PASTA BAIT

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

Relevant identified uses: rodenticide, biocide

1.3. Details of the supplier of the safety data sheet

Company: BASF SE
67056 Ludwigshafen
GERMANY

Contact address: BASF plc
PO Box 4, Earl Road, Cheadle Hulme,
Cheadle, Cheshire
SK8 6QG, UNITED KINGDOM

Telephone: +44 161 485-6222
E-mail address: product-safety-north@basf.com

1.4. Emergency telephone number

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

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

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

No need for classification according to GHS criteria for this product.

According to Directive 67/548/EEC or 1999/45/EC
Possible Hazards:
No specific dangers known, if the regulations/notes for storage and handling are considered.

2.2. Label elements

Globally Harmonized System (GHS) in accordance with UK regulations.

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):
P220 Keep/Store away from food, drink and animal feeding stuffs.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P280 Wear protective gloves.

Precautionary Statements (Response):
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

Precautionary Statements (Storage):
P404 Store in a closed container.
P405 Store locked up.

According to Directive 67/548/EEC or 1999/45/EC

Classification/labelling in accordance with UK regulations.

S-phrase(s)
S1/2 Keep locked-up and out of reach of children.
S13 Keep away from food, drink and animal feeding stuffs.
S20/21 When using do not eat, drink or smoke.
S37 Wear suitable gloves.
S46 If swallowed, seek medical advice immediately and show this container or label.

2.3. Other hazards

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

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.
SECTION 3: Composition/Information on Ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Chemical nature

rodenticide, biocide

Contains: 3-(3-biphenyl-4-yl-1,2,3,4-tetrahydro-1-naphthyl)-4-hydroxycoumarin; difenacoum (Content (W/W): 0.005 %)

Hazardous ingredients (GHS)
according to Regulation (EC) No. 1272/2008

Sucrose
    Content (W/W): < 20 %
    CAS Number: 57-50-1
    EC-Number: 200-334-9

Starch
    Content (W/W): < 20 %
    CAS Number: 9005-25-8
    EC-Number: 232-679-6

Propane-1,2-diol
    Content (W/W): < 10 %
    CAS Number: 57-55-6
    EC-Number: 200-338-0
    REACH registration number: 01-2119456809-23

Hazardous ingredients
according to Directive 1999/45/EC

Sucrose
    Content (W/W): < 20 %
    CAS Number: 57-50-1
    EC-Number: 200-334-9

Starch
    Content (W/W): < 20 %
    CAS Number: 9005-25-8
SECTION 4: First-Aid Measures

4.1. Description of first aid measures
Remove contaminated clothing.

If inhaled:
Keep patient calm, remove to fresh air.

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:
Rinse mouth and then drink plenty of water.

4.2. 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.

4.3. Indication of any immediate medical attention and special treatment needed
Treatment: Symptomatic treatment (decontamination, vital functions).
Antidote: Vitamin K1 preparation as antidote.

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing media
Suitable extinguishing media:
water spray, dry powder, foam
Unsuitable extinguishing media for safety reasons:
carbon dioxide

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

5.3. 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.

SECTION 6: Accidental Release Measures

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

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

Do not allow contamination of public drains or surface or ground waters. Inform local water plc if spillage enters drains and the Environment Agency (England & Wales), the Scottish Environmental Protection Agency (Scotland), or the Environment and Heritage Service (Northern Ireland) if it enters surface or ground waters. Keep people and animals away.

6.3. 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.
Dispose of absorbed material in accordance with regulations. Collect waste in suitable containers, which can be labeled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. Remove dried product with water.

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

SECTION 7: Handling and Storage

7.1. 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.

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.

7.2. 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.

7.3. 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.

SECTION 8: Exposure Controls/Personal Protection

8.1. Control parameters

Components with occupational exposure limits

<table>
<thead>
<tr>
<th>Compound</th>
<th>TWA value mg/m3 (WEL/EH 40 (UK))</th>
<th>STEL value mg/m3 (WEL/EH 40 (UK))</th>
</tr>
</thead>
<tbody>
<tr>
<td>57-50-1: Sucrose</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>57-55-6: Propane-1,2-diol</td>
<td>10</td>
<td>474</td>
</tr>
<tr>
<td></td>
<td>(WEL/EH 40 (UK)), Particulate</td>
<td>150 ppm (WEL/EH 40 (UK)), Total vapour and particulates</td>
</tr>
<tr>
<td>9005-25-8: Starch</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>(WEL/EH 40 (UK)), Respirable</td>
<td>(WEL/EH 40 (UK)), Inhalable</td>
</tr>
</tbody>
</table>

Refer to the current edition of HSE Guidance Note EH40 Occupational Exposure Limits (United Kingdom). For normal use and handling refer to the product label/leaflet. In all other cases the following apply.

8.2. Exposure controls

Personal protective equipment

Respiratory protection:
Respiratory protection not required.

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.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>semi-solid</td>
</tr>
<tr>
<td>Colour</td>
<td>blue</td>
</tr>
<tr>
<td>Odour</td>
<td>fruity</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 temperature</td>
<td>The substance / product decomposes therefore not determined., Information based on the main components.</td>
</tr>
<tr>
<td>boiling temperature</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 the properties of the individual components.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>not applicable</td>
</tr>
<tr>
<td>Flammability</td>
<td>not highly flammable</td>
</tr>
</tbody>
</table>
Lower explosion limit: 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.

Upper explosion limit: 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.

Ignition temperature: No data available.

Vapour pressure: The product has not been tested.

Density: approx. 1.05 g/cm³ (20 °C)

Relative vapour density (air): not applicable

Solubility in water: insoluble

Information on: 3-(3-biphenyl-4-yl-1,2,3,4-tetrahydro-1-naphthyl)-4-hydroxycoumarin; difenacoum Partitioning coefficient n-octanol/water (log Kow): 7.6 (20 °C)

Self ignition: not determined

Thermal decomposition: No decomposition if stored and handled as prescribed/indicated.

Viscosity, dynamic: not applicable, the product is a solid

Explosion hazard: Based on the chemical structure there is no indicating of explosive properties.

Fire promoting properties: Based on its structural properties the product is not classified as oxidizing.

9.2. Other information

Other Information:
If necessary, information on other physical and chemical parameters is indicated in this section.

SECTION 10: Stability and Reactivity

10.1. Reactivity
No hazardous reactions if stored and handled as prescribed/indicated.
10.2. Chemical stability
The product is stable if stored and handled as prescribed/indicated.

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

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

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

10.6. Hazardous decomposition products
Hazardous decomposition products:
No hazardous decomposition products if stored and handled as prescribed/indicated.

SECTION 11: Toxicological Information

11.1. 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): 36,000 mg/kg
(by inhalation): The product has not been tested. The statement has been derived from the properties of the individual components.

(by dermal): 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:
LC50 rat (by inhalation): 0.00346 - 0.005848 mg/l 4 h (OECD Guideline 403)
An aerosol was tested.

Information on: 3-(3-biphenyl-4-yl-1,2,3,4-tetrahydro-1-naphthyl)-4-hydroxycoumarin; difenacoum
Experimental/calculated data:
LD50 rat (dermal): 63 mg/kg (Directive 92/69/EEC, B.3)
The European Union (EU) has classified this substance as 'very toxic'.
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)

----------------------------------

Information on: 3-(3-biphenyl-4-yl-1,2,3,4-tetrahydro-1-naphthyl)-4-hydroxycoumarin; difenacoum
Experimental/calculated data:
Serious eye damage/irritation rabbit: non-irritant (Guideline 92/69/EEC, B.5)

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Respiratory/Skin sensitization

Assessment of sensitization:
There is no evidence of a skin-sensitizing potential.

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)

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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.

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.

Other relevant toxicity information

Misuse can be harmful to health.

SECTION 12: Ecological Information

12.1. 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:
No observed effect concentration (72 h) 0.25 mg/l (growth rate), Pseudokirchneriella subcapitata (Guideline 92/69/EEC, C.3)

12.2. 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.
12.3. 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-hydroxycoumarin; difenacoum*
*Assessment bioaccumulation potential:*
*Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is possible.*

12.4. Mobility in soil

Assessment transport between environmental compartments:
Volatility: 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 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.*

12.5. 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-hydroxycoumarin; difenacoum*
*Fulfills the criteria for PBT and vPvB*

12.6. Other adverse effects

The product does not contain substances that are listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

12.7. Additional information

Other ecotoxicological advice:
Do not discharge product into the environment without control.
SECTION 13: Disposal Considerations

13.1. Waste treatment methods

Must be sent to a suitable incineration plant, observing local regulations.

The UK Environmental Protection (Duty of Care) Regulations (EP) and amendments should be noted (United Kingdom).

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

SECTION 14: Transport Information

Land transport

ADR

UN number: Not applicable
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 applicable
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 applicable
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

<table>
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<th>UN number</th>
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</tr>
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<tbody>
<tr>
<td>UN proper shipping name</td>
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<td>Transport hazard class(es)</td>
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<tr>
<td>Packing group</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Environmental hazards:</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Special precautions for user</td>
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</tr>
</tbody>
</table>

**Air transport**

IATA/ICAO

<table>
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<tbody>
<tr>
<td>UN proper shipping name</td>
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<tr>
<td>Transport hazard class(es)</td>
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<tr>
<td>Packing group</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Special precautions for user</td>
<td>None known</td>
</tr>
</tbody>
</table>

14.1. UN number
See corresponding entries for "UN number" for the respective regulations in the tables above.

14.2. UN proper shipping name
See corresponding entries for "UN proper shipping name" for the respective regulations in the tables above.

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

14.4. Packing group
See corresponding entries for "Packing group" for the respective regulations in the tables above.
14.5. Environmental hazards
See corresponding entries for “Environmental hazards” for the respective regulations in the tables above.

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

14.7. Transport in bulk according to Annex II of MARPOL73/78 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>

SECTION 15: Regulatory Information

15.1. 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.

The data should be considered when making any assessment under the Control of Substances Hazardous to Health Regulations (COSHH), and related guidance, for example, 'COSHH Essentials' (United Kingdom).

15.2. Chemical Safety Assessment

Advice on product handling can be found in sections 7 and 8 of this safety data sheet.

SECTION 16: Other Information

Consult the product label for additional details.

If you have any queries relating to this MSDS, its contents or any other product safety related questions, please write to the following e-mail address: product-safety-north@basf.com

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. The data do not describe the product’s properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. 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.