Safety Data Sheet

SAPPHIRE PASTE

Safety Data Sheet dated 27/2/2018, version 2

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

1.1. Product identifier
   Trade name: SAPPHIRE PASTE

1.2. Relevant identified uses of the substance or mixture and uses advised against
   Recommended use:
   Rodenticide - Biocidal use
   Professional use
   Uses advised against:
   Do not use for purposes other than those stated in "Recommended uses"

1.3. Details of the supplier of the safety data sheet
   Company:
   LODI UK
   Pensnett Trading Estate 3rd Avenue
   West Midlands
   DY6 7FD KINGSWINFORD United Kingdom
   Tel. 00 44 1628 779 027
   Competent person responsible for the safety data sheet:
   fds@lodi.fr

1.4. Emergency telephone number
   NPIS (National Poison Centre) - Birmingham Unit
   [To be called by medical staff or physicians]
   City Hospital, Birmingham, B18 7QH, UK
   Tel: 0844 892 011

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
   Directive criteria, 67/548/CE, 99/45/EC and following amendments thereof:
   EC regulation criteria 1272/2008 (CLP)
   Danger, Rep. 1B, May damage the unborn child.
   Warning, STOT RE 2, May cause damage to organs through prolonged or repeated exposure.

   Adverse physicochemical, human health and environmental effects:
   No other hazards

2.2. Label elements
   Hazard pictograms:
   Danger
Hazard statements:
H360 May damage the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements:
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P314 Get medical advice/attention if you feel unwell.
P405 Store locked up.
P501 Dispose of contents/container in accordance with applicable regulations.

Special Provisions:
None
Contains
Brodifacoum

Special provisions according to Annex XVII of REACH and subsequent amendments:
None

2.3. Other hazards
vPvB Substances: None - PBT Substances: None
Other Hazards:
No other hazards
SECTION 2: Hazards identification

SECTION 3: Composition/information on ingredients

3.1. Substances
Not available

3.2. Mixtures
Hazardous components within the meaning of the CLP regulation and related classification:

<table>
<thead>
<tr>
<th>Qty</th>
<th>Name</th>
<th>Ident. Number</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 0.20 %</td>
<td>Butyl Hydroxytoluene</td>
<td>CAS: 128-37-0</td>
<td>4.1/A1 Aquatic Acute 1 H400</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4.1/C1 Aquatic Chronic 1 H410</td>
</tr>
<tr>
<td>40 ppm</td>
<td>Brodifacoum</td>
<td>Index number: 607-172-001 CAS: 56073-10-0 EC: 259-980-5</td>
<td>3.1/1/Dermal Acute Tox. 1 H310</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4.1/A1 Aquatic Acute 1 H400 M=10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4.1/C1 Aquatic Chronic 1 H410 M=10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3.1/1/Inhal Acute Tox. 1 H330</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3.1/1/Oral Acute Tox. 1 H300</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3.7/1B Repr. 1B H360</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3.9/1 STOT RE 1 H372</td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures
4.1. Description of first aid measures

In case of skin contact:
- Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.
- Wash with plenty of water and soap.
- Wash thoroughly the body (shower or bath).
- Remove contaminated clothing immediately and dispose off safely.
- Remove contaminated clothing, wash skin with soap and rinse thoroughly with water.
- Do not use solvents or thinners.

In case of dermal exposure, wash skin with water and then with water and soap.

In case of eyes contact:
- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- Wash thoroughly under a trickle of water (warm if possible) for several minutes, holding the eyelids open under the stream of water.

In case of ingestion:
- Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.
- Immediately consult a physician and show the label.
- Do not induce vomiting.
- Whatever the amount of product ingested, do not eat and do not drink.
- In cases of acute distress, contact the 15 (or 112).
- Contact a veterinary surgeon in case of ingestion by a pet.

In case of Inhalation:
- Remove casualty to fresh air and keep warm and at rest.
- In case of inhalation, breath fresh air and have a rest. In case of faintness, consult a physician and show the label.

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

This product contains an anticoagulant substance. If ingested, symptoms, which may be delayed, may include nosebleed and bleeding gums. In severe cases, there may be bruising and blood present in the faeces or urine.

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:
- Antidote: Vitamin K1 administered by medical/veterinary personnel only.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
- Water.
- Carbon dioxide (CO2).

Extinguishing media which must not be used for safety reasons:
- None in particular.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.
- Burning produces heavy smoke.
5.3. Advice for firefighters
Use suitable breathing apparatus.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Wear personal protection equipment.
Remove persons to safety.
See protective measures under point 7 and 8.

6.2. Environmental precautions
Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
Retain contaminated washing water and dispose it.
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.
Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up
Rapidly recover the product. To do so, wear a mask and protective clothing.
Wash with plenty of water.

6.4. Reference to other sections
See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Exercise the greatest care when handling or opening the container.
Don't use empty container before they have been cleaned.
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
Contaminated clothing should be changed before entering eating areas.
Do not eat or drink while working.
See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities
Store in the original container
Keep in a dry and cool place.
Keep away from food and drink and animal feeding stuffs
Keap out of reach of children
Store in places prevented from the access of children, birds, pets and farm animals.
Keep away from food, drink and feed.
Incompatible materials:
None in particular.
Instructions as regards storage premises:
Adequately ventilated premises.

7.3. Specific end use(s)
None in particular

SECTION 8: Exposure controls/personal protection
8.1. Control parameters
Butyl Hydroxytoluene - CAS: 128-37-0
ACGIH - TWA(8h): 2 mg/m3 - Notes: (IFV), A4 - URT irr
DNEL Exposure Limit Values
   Not available
PNEC Exposure Limit Values
Brodifacoum ATP9 - CAS: 56073-10-0
   Target: Fresh Water - Value: 0.00004 mg/l
   Target: Freshwater sediments - Value: 0.000004 mg/l
   Target: Microorganisms in sewage treatments - Value: 0.0038 mg/l
   Target: 19250.LODI01 - Value: 0.88 mg/kg

8.2. Exposure controls
Eye protection:
   Avoid contact with eyes
Protection for skin:
   Overall.
   Avoid contact with skin
   Wash clothing regularly
Protection for hands:
   Waterproof gloves according to NF EN374
   Wear gloves
   Wash hands after handling.
Respiratory protection:
   Not applicable
Thermal Hazards:
   None
Environmental exposure controls:
   Prevent access to children, pets and non-target animals.
   Avoid release in the environment
   Avoid release in watercourses and sewers
   Place baits in areas not submersible and weatherproof.
Appropriate engineering controls:
   None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Properties</th>
<th>Value</th>
<th>Method</th>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance and colour:</td>
<td>Blue Paste</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Odour:</td>
<td>Non characteristic</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Odour threshold:</td>
<td>Not available</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>pH:</td>
<td>6.3</td>
<td>CIPAC MT 75.3</td>
<td>--</td>
</tr>
<tr>
<td>Melting point / freezing point:</td>
<td>Not available</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Initial boiling point and boiling range:</td>
<td>Not available</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Flash point:</td>
<td>Not available</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Evaporation rate:</td>
<td>Not available</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Solid/gas flammability:</td>
<td>Non Regulation</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>
9.2. Other information

<table>
<thead>
<tr>
<th>Properties</th>
<th>Value</th>
<th>Method:</th>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miscibility:</td>
<td>Not available</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Fat Solubility:</td>
<td>Not available</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Conductivity:</td>
<td>Not available</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Substance Groups relevant properties</td>
<td>Not available</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**
Stable under normal conditions

**10.2. Chemical stability**
Stable under normal conditions

**10.3. Possibility of hazardous reactions**

**10.4. Conditions to avoid**
Stable under normal conditions.

**10.5. Incompatible materials**
None in particular.

**10.6. Hazardous decomposition products**
None.

**SECTION 11: Toxicological information**
11.1. Information on toxicological effects

Toxicological information of the product:
Not available

Adverse health effects
Reprotoxic category 1

Toxicological information of the main substances found in the product:
Brodifacoum - CAS: 56073-10-0

a) acute toxicity:
   Test: LD50 - Route: oral - Species: Mouse : = 0.4 mg/Kg - Source: Assessment report
   Test: LD50 - Route: dermal - Species: Rat : = 3.16 mg/Kg - Source: Assessment Report - Notes: Female
   Test: LC50 - Route: Inhalation - Species: Rat : = 3.05 mg/m3 - Source: Assessment Report - Notes: Female

b) skin corrosion/irritation:
   Test: Skin Irritant - Route: dermal - Species: Rabbit : 18204.LODI034 - Source: Assessment Report

c) serious eye damage/irritation:
   Test: Eye Irritant - Route: ocular - Species: Rabbit : 18204.LODI034 - Source: Assessment Report - Notes: Reversible

d) respiratory or skin sensitisation:
   Test: Skin Sensitization - Route: dermal sensitizing - Source: Assessment Report - Notes: Maximisation test of Ritz and Buehler

g) reproductive toxicity:
   Test: NOAEL - Route: oral - Species: Rat : = 0.001 mg/kg b.w/d - Source: Assessment Report - Notes: Maternal toxicity

If not differently specified, the information required in Regulation (EU)2015/830 listed below must be considered as N.A.:
   a) acute toxicity;
   b) skin corrosion/irritation;
   c) serious eye damage/irritation;
   d) respiratory or skin sensitisation;
   e) germ cell mutagenicity;
   f) carcinogenicity;
   g) reproductive toxicity;
   h) STOT-single exposure;
   i) STOT-repeated exposure;
   j) aspiration hazard.

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.
Brodifacoum - CAS: 56073-10-0

a) Aquatic acute toxicity:
   Endpoint: EC50 Daphnia magna = 0.25 mg/L - Duration h: 48
   Endpoint: LC50 Rainbow Trout = 0.04 mg/L - Duration h: 96
   Endpoint: ErC50 Algae = 0.04 mg/L - Duration h: 72

12.2. Persistence and degradability

Brodifacoum - CAS: 56073-10-0
Biodegradability: Non-readily biodegradable - Test: Not available - Duration: Not available - %: Not available - Notes: Not available

12.3. Bioaccumulative potential
Brodifacoum - CAS: 56073-10-0
Bioaccumulation: Calculated bioaccumulation - Test: BCF - Bioconcentrantion factor 35134 - Duration: Not available - Notes: Fish - Calculated according to TGD eq. 75, using log Kow = 6.12
Bioaccumulation: Calculated bioaccumulation - Test: BCF - Bioconcentrantion factor 15820 - Duration: Not available - Notes: Earthworm - calculated according to TGD eq. 82d, using log Kow = 6.12

12.4. Mobility in soil
Brodifacoum - CAS: 56073-10-0
Mobility in soil: Not mobile - Test: Leaching column Not available - Duration: Not available - Notes: Not available

12.5. Results of PBT and vPvB assessment
vPvB Substances: None - PBT Substances: None

12.6. Other adverse effects
None

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

SECTION 14: Transport information

14.1. UN number
Not classified as dangerous in the meaning of transport regulations.

14.2. UN proper shipping name
Not available

14.3. Transport hazard class(es)
Not available

14.4. Packing group
Not available

14.5. Environmental hazards
Not available

14.6. Special precautions for user
Not available

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

SAPPHIRE PASTE ATP9/1
Page n. 8 of 11
SECTION 15: Regulatory information

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

- Dir. 98/24/EC (Risks related to chemical agents at work)
- Dir. 2000/39/EC (Occupational exposure limit values)
- Regulation (EC) n. 1907/2006 (REACH)
- Regulation (EC) n. 1272/2008 (CLP)
- Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
- Regulation (EU) 2015/830
- Regulation (EU) n. 286/2011 (ATP 2 CLP)
- Regulation (EU) n. 618/2012 (ATP 3 CLP)
- Regulation (EU) n. 487/2013 (ATP 4 CLP)
- Regulation (EU) n. 944/2013 (ATP 5 CLP)
- Regulation (EU) n. 605/2014 (ATP 6 CLP)
- Regulation (EU) n. 2015/1221 (ATP 7 CLP)
- Regulation (EU) n. 2016/918 (ATP 8 CLP)
- Regulation (EU) n. 2016/1179 (ATP 9 CLP)

Restrictions related to the product or the substances contained according to Annex XVII

Regulation (EC) 1907/2006 (REACH) and subsequent modifications:
- Restrictions related to the product:
  - Restriction 3
- Restrictions related to the substances contained:
  - No restriction.

Where applicable, refer to the following regulatory provisions:
- Directive 2012/18/EU (Seveso III)
- Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):
- Seveso III category according to Annex 1, part 1
  - None

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

Full text of phrases referred to in Section 3:
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H310 Fatal in contact with skin.
- H330 Fatal if inhaled.
- H300 Fatal if swallowed.
- H360 May damage fertility or the unborn child if inhaled and in contact with skin.
- H372 Causes damage to organs (blood) through prolonged or repeated exposure.

<table>
<thead>
<tr>
<th>Hazard class and hazard category</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox. 1</td>
<td>3.1/1/Dermal</td>
<td>Acute toxicity (dermal), Category 1</td>
</tr>
</tbody>
</table>
### Safety Data Sheet
**SAPPHIRE PASTE**

<table>
<thead>
<tr>
<th>Classification</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox. 1</td>
<td>3.1/1</td>
</tr>
<tr>
<td>Acute Tox. 1</td>
<td>3.1/1</td>
</tr>
<tr>
<td>Acute Tox. 1</td>
<td>3.1/1</td>
</tr>
<tr>
<td>Rep. 1B</td>
<td>3.7/1B</td>
</tr>
<tr>
<td>Rep. 1B</td>
<td>3.7/1B</td>
</tr>
<tr>
<td>STOT RE 1</td>
<td>3.9/1</td>
</tr>
<tr>
<td>STOT RE 2</td>
<td>3.9/2</td>
</tr>
<tr>
<td>Aquatic Acute 1</td>
<td>4.1/A1</td>
</tr>
<tr>
<td>Aquatic Chronic 1</td>
<td>4.1/C1</td>
</tr>
</tbody>
</table>

This safety data sheet has been completely updated in compliance to Regulation 2015/830. Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

<table>
<thead>
<tr>
<th>Classification according to Regulation (EC) Nr. 1272/2008</th>
<th>Classification procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repr. 1B, H360</td>
<td>Calculation method</td>
</tr>
<tr>
<td>STOT RE 2, H373</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>

This document was prepared by a competent person who has received appropriate training. Main bibliographic sources:
- ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities
- SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality. It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

**ACR:** European Agreement concerning the International Carriage of Dangerous Goods by Road.

**CAS:** Chemical Abstracts Service (division of the American Chemical Society).

**CLP:** Classification, Labeling, Packaging.

**CSR:** Chemical safety report

**DNEL:** Derived No Effect Level.

**EC50:**

**EINECS:** European Inventory of Existing Commercial Chemical Substances.

**GefStoffVO:** Ordinance on Hazardous Substances, Germany.

**GHS:** Globally Harmonized System of Classification and Labeling of Chemicals.

**IATA:** International Air Transport Association.

**IATA-DGR:** Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

**ICAO:** International Civil Aviation Organization.

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

**IMDG:** International Maritime Code for Dangerous Goods.

**INCI:** International Nomenclature of Cosmetic Ingredients.

**KSt:** Explosion coefficient.

**LC50:** Lethal concentration, for 50 percent of test population.

**LD50:** Lethal dose, for 50 percent of test population.
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>N.A.</td>
<td>Not available</td>
</tr>
<tr>
<td>PNEC</td>
<td>Predicted No Effect Concentration.</td>
</tr>
<tr>
<td>RID</td>
<td>Regulation Concerning the International Transport of Dangerous Goods by Rail.</td>
</tr>
<tr>
<td>STEL</td>
<td>Short Term Exposure limit.</td>
</tr>
<tr>
<td>STOT</td>
<td>Specific Target Organ Toxicity.</td>
</tr>
<tr>
<td>TLV</td>
<td>Threshold Limiting Value.</td>
</tr>
<tr>
<td>TWA</td>
<td>Time-weighted average</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
</tr>
<tr>
<td>WGK</td>
<td>German Water Hazard Class.</td>
</tr>
</tbody>
</table>