## SECTION 1: IDENTIFICATION

### 1.1 GHS Product identifier: VetOne BoviBlock

**Supplier:**
Norbrook Laboratories Ltd  
Carnbane Industrial Estate  
BT35 6QQ Newry - Northern Ireland  
Phone.: +44 (0)28 3026 4435  
Fax: +44 (0)28 3026 5060  
http://www.norbrook.com

### 1.2 Recommended use of the chemical and restrictions on use:

- **Uses advised against:** All uses not specified in this section or in section 7.3
- **Relevant uses:** Veterinary Pharmaceutical Product

### 1.3 Name, address, and telephone number of the chemical manufacturer:

Norbrook Laboratories Ltd  
Carnbane Industrial Estate  
BT35 6QQ Newry - Northern Ireland  
Phone.: +44 (0)28 3026 4435  
Fax: +44 (0)28 3026 5060  
http://www.norbrook.com

### 1.4 Emergency phone number: 208 955 2798

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## SECTION 2: HAZARD(S) IDENTIFICATION

### 2.1 Classification of the substance or mixture:

**29 CFR 1910.1200:**
While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

### 2.2 Label elements:

- **This mixture is regulated under the Veterinary Medicines Regulations and will be labelled accordingly**

**29 CFR 1910.1200:**
None

### 2.3 Other hazards which do not result in classification:

Non-applicable

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## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances:

Non-applicable

### 3.2 Mixtures:

**Chemical description:** Intramammary Suspension

**Components:**
None of the substances contained in the mixture are above the values fixed in Appendix D to § 1910.1200.

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## SECTION 4: FIRST-AID MEASURES

### 4.1 Description of necessary measures:

- Consult a doctor in case of discomfort with this Safety data Sheet.

**By inhalation:**

- In case of symptoms, move the person affected into fresh air.

**By skin contact:**

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**SECTION 4: FIRST-AID MEASURES (continued)**

In case of contact it is recommended to clean the affected area thoroughly with water and neutral soap. In case of modifications on the skin (stinging, redness, rashes, blisters,...), seek medical advice with this Safety data Sheet

**By eye contact:**
Rinse with water until the product has been eliminated. In case of problems, consult a doctor with the SDS of this product.

**By ingestion/ aspiration:**
In case of consumption in large quantities, it is recommended to seek medical assistance.

4.2 **Most important symptoms/effects, acute and delayed:**
Acute and delayed effects are indicated in sections 2 and 11.

4.3 **Indication of immediate medical attention and special treatment needed, if necessary:**
Non-applicable

**SECTION 5: FIRE-FIGHTING MEASURES**

5.1 **Suitable (and unsuitable) extinguishing media:**
Product is non-flammable, low risk of fire by the inflammability characteristics of the product in normal conditions of storage, manipulation and use. In the case of the existence of sustained combustion as a result of improper manipulation, storage or use any type of extinguishing agent can be used (ABC Powder, water,...)

5.2 **Specific hazards arising from the chemical:**
Due to its non-flammable nature, the product does not present a fire risk under normal conditions of storage, manipulation and use.

5.3 **Special protective equipment and precautions for fire-fighters:**
Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

**Additional provisions:**
As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

6.1 **Personal precautions, protective equipment and emergency procedures:**
Sweep up and shovel product or other means and place in container for reuse (preferred) or disposal

6.2 **Environmental precautions:**
This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 **Methods and materials for containment and cleaning up:**
It is recommended:
Sweep up and shovel product or other means and place in container for reuse (preferred) or disposal

6.4 **Reference to other sections:**
See sections 8 and 13.

**SECTION 7: HANDLING AND STORAGE**

7.1 **Precautions for safe handling:**
A.- Precautions for safe manipulation
Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions
SECTION 7: HANDLING AND STORAGE (continued)

Due to its non-flammable nature, the product does not present a fire risk under normal conditions of storage, manipulation and use.

C.- Technical recommendations to prevent ergonomic and toxicological risks
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks
It is not necessary to take special measures to prevent environmental risks. For more information see subsection 6.2

7.2 Conditions for safe storage, including any incompatibilities:
A.- Technical measures for storage
   Maximum Temp.: Non-applicable

B.- General conditions for storage
   Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):
Prevention of ascending intramammary infections throughout the dry period. In cows considered likely to be free of sub-clinical mastitis, the product may be suitable for use on its own in dry cow management for mastitis control.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:
Substances whose occupational exposure limits have to be monitored in the work environment
Nuisance dust: Inhalable dust 10 mg/m3 // Respirable dust 4 mg/m3

8.2 Appropriate engineering controls:
A.- Individual protection measures, such as personal protective equipment
   As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection
   The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands
<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Mandatory hand protection]</td>
<td>Protective gloves against minor risks</td>
<td>Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer’s use limitations and OSHA standard 1910.138 (29CFR)</td>
</tr>
</tbody>
</table>

   As the product is a mixture of several substances, the resistance of the glove material cannot be calculated in advance with total reliability and has therefore to be checked prior to the application

D.- Ocular and facial protection
<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Mandatory face protection]</td>
<td>Panoramic glasses against splash/projections.</td>
<td>Clean daily and disinfect periodically according to the manufacturer’s instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer’s use limitations and OSHA standard 1910.133 (29CFR)</td>
</tr>
</tbody>
</table>

E.- Bodily protection

- CONTINUED ON NEXT PAGE -
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>PPE</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Work clothing</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
<tr>
<td></td>
<td>Anti-slip work shoes</td>
<td>Replace before any evidence of deterioration.</td>
</tr>
</tbody>
</table>

F. - Additional emergency measures

It is not necessary to take additional emergency measures.

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

- Physical state at 68 °F: Solid
- Appearance: Not available
- Color: Brown
- Odor: Undefined
- Odour threshold: Non-applicable *

Volutility:

- Boiling point at atmospheric pressure: Non-applicable *
- Vapour pressure at 68 °F: Non-applicable *
- Vapour pressure at 122 °F: <300000 Pa (300 kPa)
- Evaporation rate at 68 °F: Non-applicable *

Product description:

- Density at 68 °F: 1917 kg/m³
- Relative density at 68 °F: 1.917
- Dynamic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 68 °F: Non-applicable *
- Kinematic viscosity at 104 °F: Non-applicable *
- Concentration: Non-applicable *
- pH: Non-applicable *
- Vapour density at 68 °F: Non-applicable *
- Partition coefficient n-octanol/water 68 °F: Non-applicable *
- Solubility in water at 68 °F: Non-applicable *
- Solubility properties: Non-applicable *
- Decomposition temperature: Non-applicable *
- Melting point/freezing point: Non-applicable *
- Explosive properties: Non-applicable *
- Oxidising properties: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability</td>
<td>Non-applicable</td>
</tr>
<tr>
<td>Flash Point</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Lower flammability limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper flammability limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Explosive</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Lower explosive limit</td>
<td>Non-applicable *</td>
</tr>
<tr>
<td>Upper explosive limit</td>
<td>Non-applicable *</td>
</tr>
</tbody>
</table>

9.2 Other information:

- Surface tension at 68 ºF: Non-applicable *
- Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability:

Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Shock and friction</th>
<th>Contact with air</th>
<th>Increase in temperature</th>
<th>Sunlight</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10.5 Incompatible materials:

<table>
<thead>
<tr>
<th>Material</th>
<th>Acids</th>
<th>Water</th>
<th>Combustible materials</th>
<th>Combustible materials</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Avoid strong acids</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Avoid alkalis or strong bases</td>
</tr>
</tbody>
</table>

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

LD50 oral > 5000 mg/kg (rat)

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):
  - Acute toxicity: Based on available data, the classification criteria are not met
  - Corrosivity/Irritability: Based on available data, the classification criteria are not met

B- Inhalation (acute effect):
  - Acute toxicity: Based on available data, the classification criteria are not met
  - Corrosivity/Irritability: Based on available data, the classification criteria are not met
SECTION 11: TOXICOLOGICAL INFORMATION (continued)

C- Contact with the skin and the eyes (acute effect):
   - Contact with the skin: Based on available data, the classification criteria are not met
   - Contact with the eyes: Based on available data, the classification criteria are not met

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
   - Carcinogenicity: Based on available data, the classification criteria are not met
   - Mutagenicity: Based on available data, the classification criteria are not met
   - Reproductive toxicity: Based on available data, the classification criteria are not met

E- Sensitizing effects:
   - Respiratory: Based on available data, the classification criteria are not met
   - Cutaneous: Based on available data, the classification criteria are not met

F- Specific target organ toxicity (STOT) - single exposure:
   Based on available data, the classification criteria are not met

G- Specific target organ toxicity (STOT)-repeated exposure:
   - Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met
   - Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

H- Aspiration hazard:
   Based on available data, the classification criteria are not met

Specific toxicology information on the substances:
Non-applicable

Other information:

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):
   Not available

12.2 Persistence and degradability:
   Not available

12.3 Bioaccumulative potential:
   Not available

12.4 Mobility in soil:
   Not available

12.5 Results of PBT and vPvB assessment:
   Non-applicable

12.6 Other adverse effects:
   Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):
Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

Regulations related to waste management:
SECTION 13: DISPOSAL CONSIDERATIONS (continued)

Legislation related to waste management:
40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

This product is not regulated for transport.

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Non-applicable
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
The Toxic Substances Control Act (TSCA) : Non-applicable
Massachusetts RTK - Substance List: Non-applicable
New Jersey Worker and Community Right-to-Know Act: Non-applicable
New York RTK - Substance list: Non-applicable
Pennsylvania Worker and Community Right-to-Know Law: Non-applicable
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Non-applicable

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:

The Toxic Substances Control Act (TSCA)
SARA Title III - Community Right-to-Know Reporting Requirements (Sections 311-312)
SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313)
Emergency Planning and Community Right-to-Know Act (EPCRA) Reportable Quantities

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:
This safety data sheet has been designed in accordance with Appendix d to §1910.1200 – Safety data sheets

Texts of the legislative phrases mentioned in section 3:
The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:
Non-applicable

Advice related to training:
Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:
Occupational Safety & Health Administration (OSHA).
Abbreviations and acronyms:
### SECTION 16: OTHER INFORMATION (continued)

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMDG</td>
<td>International maritime dangerous goods code</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>ICAO</td>
<td>International Civil Aviation Organisation</td>
</tr>
<tr>
<td>COD</td>
<td>Chemical Oxygen Demand</td>
</tr>
<tr>
<td>BOD5</td>
<td>5-day biochemical oxygen demand</td>
</tr>
<tr>
<td>BCF</td>
<td>Bioconcentration factor</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal Dose 50</td>
</tr>
<tr>
<td>LC50</td>
<td>Lethal Concentration 50</td>
</tr>
<tr>
<td>EC50</td>
<td>Effective concentration 50</td>
</tr>
<tr>
<td>Log-POW</td>
<td>Octanol–water partition coefficient</td>
</tr>
<tr>
<td>Koc</td>
<td>Partition coefficient of organic carbon</td>
</tr>
</tbody>
</table>

The information contained in this safety data sheet is based on sources, technical knowledge and current USA legislation, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.