1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Pfizer Animal Health
Pfizer Inc
235 East 42nd Street
New York, NY 10017
Poison Control Center Phone: 1-866-531-8896
Technical Services Phone: 1-800-366-5288

Material Name: OrbeSeal®
Trade Name: OrbeSeal
Chemical Family: Mixture
Intended Use: Veterinary product used as Non-antibiotic intramammary dry cow treatment

2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>EU EINECS List</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bismuth subnitrate</td>
<td>1304-85-4</td>
<td>215-136-8</td>
<td>65</td>
</tr>
<tr>
<td>Colloidal silicon dioxide</td>
<td>7631-86-9</td>
<td>231-545-4</td>
<td>*</td>
</tr>
<tr>
<td>Liquid paraffin</td>
<td>92062-35-6</td>
<td>295-550-3</td>
<td>*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>EU EINECS List</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum di-/tristearate (ALUGEL 30 HEP)</td>
<td>NOT ASSIGNED</td>
<td>Not listed</td>
<td>*</td>
</tr>
</tbody>
</table>

Additional Information:
- Proprietary
- Ingredient(s) indicated as hazardous have been assessed under standards for workplace safety.

3. HAZARDS IDENTIFICATION

Appearance: Grayish White Smooth oily cream with a paraffin odor in a disposable syringe
Signal Word: WARNING

Statement of Hazard:
- May cause eye, skin and respiratory tract irritation

Short Term:
- May cause irritation (based on components)

EU Indication of danger:
- Not classified

Additional Information:
For a more detailed discussion of potential health hazards and toxicity see Section 11.

Note:
This document has been prepared in accordance with standards for workplace safety, which require the inclusion of all known hazards of the product or its ingredients regardless of the potential risk. The precautionary statements and warnings included may not apply in all cases. Your needs may vary depending upon the potential for exposure in your workplace.
4. FIRST AID MEASURES

Eye Contact: Immediately flush eyes with water for at least 15 minutes. If irritation occurs or persists, get medical attention.

Skin Contact: Remove contaminated clothing and shoes. Wash skin with soap and water. This material may not be completely removed by conventional laundering. Consult professional laundry service. Do not home launder. If irritation occurs or persists, get medical attention.

Ingestion: Get medical attention. Do not induce vomiting unless directed by medical personnel. Never give anything by mouth to an unconscious person.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. Get medical attention immediately.

5. FIRE FIGHTING MEASURES

Extinguishing Media: Carbon dioxide, dry powder, or foam.

Hazardous Combustion Products: Carbon dioxide, carbon monoxide, and oxides of nitrogen

Fire Fighting Procedures: Evacuate area and fight fire from a safe distance. Wear approved positive pressure, self-contained breathing apparatus and full protective turn out gear.

Fire / Explosion Hazards: Fine particles (such as dust and mists) may fuel fires/explosions.

Additional Information: This product contains an oxidizer and may support combustion. Paraffin is combustible.

6. ACCIDENTAL RELEASE MEASURES

Health and Safety Precautions: Personnel involved in clean-up should wear appropriate personal protective equipment (see Section 8). Minimize exposure.

Measures for Cleaning / Collecting: Contain the source of spill if it is safe to do so. Collect spill with absorbent material. Clean spill area thoroughly.

Measures for Environmental Protections: Place waste in an appropriately labeled, sealed container for disposal. Care should be taken to avoid environmental release.

Additional Consideration for Large Spills: Non-essential personnel should be evacuated from affected area. Report emergency situations immediately. Clean up operations should only be undertaken by trained personnel.

7. HANDLING AND STORAGE

General Handling: Eliminate possible ignition sources (e.g., heat, sparks, flame, impact, friction, electricity), and follow appropriate grounding and bonding procedures. Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

Storage Conditions: Store in a cool, dry, well-ventilated area. Keep container tightly closed when not in use. Protect from light.

Storage Temperature: Store as directed by product packaging.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Colloidal silicon dioxide
Material Name: OrbeSeal®
Revision date: 04-Dec-2006

The exposure limit(s) listed for solid components are only relevant if dust or mist may be generated.

**Engineering Controls:**

Engineering controls should be used as the primary means to control exposures. Local and general ventilation should be used as necessary, when handling this material in bulk.

**Personal Protective Equipment:**

- **Hands:** Chemical protective gloves
- **Eyes:** Wear safety glasses or goggles if eye contact is possible.
- **Skin:** Wear protective clothing when working with large quantities.
- **Respiratory protection:** Respiratory protection is recommended as a precaution to minimize exposure when handling this material in bulk.

**9. PHYSICAL AND CHEMICAL PROPERTIES:**

- **Physical State:** Smooth Oily Cream
- **Odor:** Paraffin odor
- **Molecular Weight:** Mixture
- **Solubility:** Insoluble: Water (based on components)
- **Melting/Freezing Point (°C):** 260 based on highest component melting point (Bismuth subnitrate)
- **Relative Density:** 4.93 (Bismuth subnitrate)
- **Flash Point (Liquid) (°C):** 179 based on lowest component boiling point (Paraffin)
- **Additional Information:** There are no data available for this mixture. The information given in this section is for major component(s).

**10. STABILITY AND REACTIVITY**

- **Stability:** Stable
- **Oxidizing Properties:** Bismuth subnitrate is an oxidizer.
- **Conditions to Avoid:** High temperatures
- **Incompatible Materials:** Strong oxidizing agents and strong acids, organic materials, combustible materials.

**Hazardous Decomposition Products:** Toxic or corrosive oxides of carbon and nitrogen.

**Polymerization:** Will not occur

**11. TOXICOLOGICAL INFORMATION**

**General Information:** There are no data for this product. The information included in this section describes the potential hazards of the individual ingredients.

**Acute Toxicity: (Species, Route, End Point, Dose)**

- **Bismuth subnitrate**
  - Mouse Oral Minimum Lethal Dose 1200 mg/kg

**Repeated Dose Toxicity: (Duration, Species, Route, Dose, End Point, Target Organ)**

- **Bismuth subnitrate**
  - 3 Day(s) Rabbit Subcutaneous 5 g/kg/day LOAEL Kidney
Subchronic Effects

Single or multiple subcutaneous injections of bismuth subnitrate into female mice produced neurological signs including ataxia, tremors, and convulsions. Hydrocephalus and axonal swelling in the spinal cord were the major neuropathological lesions.

Carcinogen Status:
None of the components of this formulation are listed as a carcinogen by IARC, NTP or OSHA. See below

Colloidal silicon dioxide
IARC: Group 3

12. ECOLOGICAL INFORMATION

Environmental Overview: The environmental characteristics of this material have not been fully evaluated. Releases to the environment should be avoided.

13. DISPOSAL CONSIDERATIONS

Disposal Procedures: Dispose of waste in accordance with all applicable laws and regulations.

14. TRANSPORT INFORMATION

Not regulated for transport under USDOT, EUADR, IATA, or IMDG regulations.

15. REGULATORY INFORMATION

EU Indication of danger: Not classified

OSHA Label:
WARNING
May cause eye, skin and respiratory tract irritation

Canada - WHMIS: Classifications

WHMIS hazard class:
None required
This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.
Bismuth subnitrate
  Inventory - United States TSCA - Sect. 8(b) Present
  Australia (AICS): Present
  EU EINECS List 215-136-8

Colloidal silicon dioxide
  Inventory - United States TSCA - Sect. 8(b) Present
  Australia (AICS): Present
  EU EINECS List 231-545-4

Liquid paraffin
  Australia (AICS): Present
  EU EINECS List 295-550-3

16. OTHER INFORMATION

Reasons for Revision: Updated Section 2 - Composition / Information on Ingredients. Updated Section 3 - Hazard Identification. Updated Section 6 - Accidental Release Measures. Updated Section 8 - Exposure Controls / Personal Protection. Updated Section 11 - Toxicology Information. Updated Section 15 - Regulatory Information.

Prepared by: Toxicology and Hazard Communication
              Pfizer Global Environment, Health, and Safety

Pfizer Inc believes that the information contained in this Material Safety Data Sheet is accurate, and while it is provided in good faith, it is without a warranty of any kind, expressed or implied.

End of Safety Data Sheet