



## MATERIAL SAFETY DATA SHEET

|   |  |   |   |
|---|--|---|---|
| <b>IDENTITY</b>   |  |   |   |
| Bovine Pili Shield + C – Bacterin   |  | Product # 246, 247                      |   |
| <b>Section I</b>  |  |   |   |
| Manufacturer's Name<br>Novartis Animal Vaccines, Inc.   | Emergency Telephone Number<br>CHEMTREC - U.S. 800-424-9300<br>International 703-527-3887 (Collect) |   |   |
| Address (Number, Street, City, State, and Zip Code)   | Telephone Number for Information<br>(712) 477-2811   |   |   |
| 1447 140th Street   | Date Prepared<br>February 1, 2000  |   | Revised Date: June 3, 2003                  |
| Larchwood, IA 51241-9778  | Signature of Preparer (optional)   |   |   |
| <b>Section II - Hazardous Ingredients/Identity Information</b>  |  |   |   |
| Hazardous Components (Specific Chemical Identity; Common Name(s))   | OSHA<br>PEL  | ACGIH<br>TVL                            | Other limits<br>Recommended %<br>(optional) |
| Thimerosal (merthiolate)  | 0.01 mg of Hg/ m <sup>3</sup>  |   | ≤ 0.03                                      |
| Thimerosal is an organomercury compound.  |  |   |   |
| Formaldehyde  | 0.75 ppm 0.3 ppm   |   | ≤ 0.5                                       |
|   |  |   |   |
|   |  |   |   |
| <b>Section III - Physical/Chemical Characteristics</b>  |  |   |   |
| Boiling Point   | NA   | Specific Gravity (H <sub>2</sub> O = 1) | NA  |
| Vapor Pressure (mm Hg.)   | NA   | Melting Point                           | NA  |
| Vapor Density (AIR = 1)   | NA   | Evaporation Rate<br>(Butyl Acetate = 1) | NA  |
| Solubility in Water<br>Yes  |  |   |   |
| Appearance and Odor<br>Opaque liquid  |  |   |   |
| <b>Section IV - Fire and Explosion Hazard Data</b>  |  |   |   |
| Flash Point (Method Used)<br>NA   | Flammable Limits<br>NA   | LEL<br>NA                               | UEL<br>NA                                   |
| Extinguishing Media<br>Dry chemical or carbon dioxide   |  |   |   |
| Special Fire Fighting Procedures Wear protective clothing and a self contained breathing apparatus as appropriate for the surrounding fire. |  |   |   |
| Unusual Fire and Explosion Hazards None   |  |   |   |

**Bovine Pili Shield + C - Bacterin**

| Section V - Reactivity Data   |                      |                |  |
|---|----------------------|----------------|--|
| Stability   | Unstable             |                | Conditions to Avoid Thimerosal will decompose with heat. |
|   | Stable               | X              |  |
| Incompatibility (Materials to Avoid)  |                      |                |  |
| None  |                      |                |  |
| Hazardous Decomposition or Byproducts Mercury, carbon monoxide, or carbon dioxide   |                      |                |  |
| Hazardous Polymerization  | May Occur            |                | Conditions to Avoid None                                 |
|   | Will Not Occur       | X              |  |
| Section VI - Health Hazard Data   |                      |                |  |
| Route(s) of Entry:  | Inhalation?          | Skin?          | Ingestion?   |
|   | Yes                  | Yes            | Yes  |
| Health Hazards (Acute and Chronic)  |                      |                |  |
| The product may be irritating in the case of skin or eye contact. Thimerosal is a toxic compound.   |                      |                |  |
|   |                      |                |  |
|   |                      |                |  |
| Carcinogenicity:  | NPT?                 | Yes            | IARC Monographs? Yes OSHA Regulated? Yes                 |
|   |                      |                |  |
| Emergency and First Aid Procedures In case of skin or eye contact, flush with plenty of water. If the product is ingested, wash the mouth out with water and call a physician. In case of accidental injection, wash the puncture site and see a physician immediately. |                      |                |  |
|   |                      |                |  |
|   |                      |                |  |
| Section VII - Precautions for Safe Handling and Use   |                      |                |  |
| Steps to Be Taken in Case Material Is Released or Spilled   |                      |                |  |
| Clean up the spill with absorbent material, and afterwards, wash the site thoroughly with water.  |                      |                |  |
|   |                      |                |  |
| Waste Disposal Method   |                      |                |  |
| Dispose in accordance with all applicable federal, state and local environmental regulations.   |                      |                |  |
|   |                      |                |  |
| Precautions to Be Taken in Handling and Storing   |                      |                |  |
| Refrigerate the product (40° F). Keep the container closed when stored, and shake well before using.  |                      |                |  |
| Other Precautions N/A   |                      |                |  |
|   |                      |                |  |
| Section VIII - Control Measures   |                      |                |  |
| Respiratory Protection (Specify Type)   |                      |                |  |
| An approved cartridge respirator for large spills   |                      |                |  |
| Ventilation   | Local Exhaust        | No             | Special NA   |
|   | Mechanical (General) | Yes            | Other NA   |
| Protective Gloves   |                      | Eye Protection |  |
| Vinyl or nitrile  |                      | Goggles        |  |
| Other Protective Clothing or Equipment  |                      |                |  |
| NA  |                      |                |  |
| Work/Hygienic Practices   |                      |                |  |
| Take precautions to prevent accidental injections.  |                      |                |  |

Section IX - Regulatory Information

Component: Thimerosal

Mercury and mercury compounds are subject to CWA, SDWA, CAA, RCRA, CERCLA, SARA (Secs. 312 and 313), DOT and 29 CFR 1910.1200 regulations.

Component: Formaldehyde

Formaldehyde is subject to SARA (Secs. 312 and 313), CERCLA, and 29 CFR 1910.1048 regulations

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This Material Safety Data Sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in this data sheet which we received from sources outside our company. We believe that information to be correct but cannot guarantee its accuracy or completeness. Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as a permission or recommendation for the use of any product in a manner that might infringe existing patents. Accordingly, no guarantee expressed or implied is made by Novartis Animal Vaccines, Inc. as to the results to be obtained based upon your use of the information, nor does Novartis Animal Vaccines, Inc. assume any liability arising out of your use of the information.

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