Section 1: Identification of the Substance and Supplier

Product name: Footvax

Recommended use: Vaccine for footrot in sheep.

Company details: MSD Animal Health, 33 Whakatiki Street, Upper Hutt

Phone: 0800 800 543  Fax: 0800 808 100
Website: www.msd-animal-health.co.nz
Hours: 8 am – 5 pm, Mon – Fri

Emergency telephone: 0800 764 766 (0800 POISON) 24 hours human health
0800 243 622 (0800 CHEMCALL) 24 hours

Date of preparation: September 2011

Section 2: Hazards Identification

Hazard classifications: 6.5B

Priority identifiers: WARNING

Secondary identifier: 6.5B May cause an allergic skin reaction

Risk & Safety Phrases: R43 May cause sensitisation by skin contact

Section 3: Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Dichelobacter nodosus</em> toxoid (Strain A)</td>
<td>N/A</td>
<td>Varies</td>
</tr>
<tr>
<td><em>D. nodosus</em> (Strain B1)</td>
<td>N/A</td>
<td>Varies</td>
</tr>
<tr>
<td><em>D. nodosus</em> (Strain B2)</td>
<td>N/A</td>
<td>Varies</td>
</tr>
<tr>
<td><em>D. nodosus</em> (Strain C)</td>
<td>N/A</td>
<td>Varies</td>
</tr>
<tr>
<td><em>D. nodosus</em> (Strain D)</td>
<td>N/A</td>
<td>Varies</td>
</tr>
<tr>
<td><em>D. nodosus</em> (Strain E)</td>
<td>N/A</td>
<td>Varies</td>
</tr>
<tr>
<td><em>D. nodosus</em> (Strain F)</td>
<td>N/A</td>
<td>Varies</td>
</tr>
<tr>
<td><em>D. nodosus</em> (Strain G)</td>
<td>N/A</td>
<td>Varies</td>
</tr>
<tr>
<td><em>D. nodosus</em> (Strain H)</td>
<td>N/A</td>
<td>Varies</td>
</tr>
<tr>
<td><em>D. nodosus</em> (Strain I)</td>
<td>N/A</td>
<td>Varies</td>
</tr>
<tr>
<td>Mineral Oil</td>
<td>8012-95-1</td>
<td>50-60%</td>
</tr>
<tr>
<td>Mannide Oleate</td>
<td>104559-19-5</td>
<td>&lt;10%</td>
</tr>
<tr>
<td>Thiomersal (Preservative)</td>
<td>54-64-8</td>
<td>&lt;1%</td>
</tr>
</tbody>
</table>
Section 4: First Aid Measures

Necessary first aid measures

ACCIDENTAL SELF-INJECTION If accidental self injection occurs seek immediate medical attention. Accidental injection may cause necrosis or vascular spasm. This preparation contains a preservative or antibiotic or both which may cause allergic reactions in susceptible individuals. Take the vaccine package and this SDS with you.

SKIN CONTACT In case of skin contact, while wearing protective gloves, carefully remove any contaminated clothing, including shoes, and wash skin thoroughly with soap and water. If irritation or symptoms occur or persist, consult a doctor.

EYE CONTACT In case of eye contact, immediately rinse eyes thoroughly with plenty of water. If wearing contact lenses, remove only after initial rinse, and continue rinsing eyes for at least 15 minutes. If irritation occurs or persists, consult a doctor.

INGESTION Rinse mouth and drink a glass of water. Do not induce vomiting unless under the direction of a qualified medical professional or Poison Control Centre. If symptoms persist, consult a doctor.

INHALATION Remove to fresh air. If any trouble breathing, get immediate medical attention. Administer artificial respiration if breathing has ceased. If irritation or symptoms occur or persist, consult a doctor.

Required instructions

For advice contact the National Poisons Centre 0800 POISON (0800 764 766) or a doctor.

Notes for medical personnel

ACCIDENTAL SELF-INJECTION Contains inactivated bacterial toxins and oil adjuvant. Contamination of the needle must be considered. Treat symptomatically. Antibiotics and minor surgical debridements may be necessary. Vomiting is contraindicated due to the possibility of aspiration pneumonia. This product is a vaccine.

Section 5: Fire Fighting Measures

Type of hazard

Not classified as flammable

Fire hazard properties

Not applicable

Regulatory requirements

Not applicable

Extinguishing media and methods

Carbon dioxide (CO₂), extinguishing powder or water spray.

Hazchem code

Not applicable

Recommended protective clothing

Wear full protective clothing and self-contained breathing apparatus (SCBA).

Section 6: Accidental Release Measures

Emergency procedures

Wear chemical resistant gloves and overalls, facemask or goggles. Prevent further spillage. Adsorb spilled product and place in sealable container for disposal. Wash down affected area with water plus detergent. Absorb and collect washings and place in the same sealable container for disposal. Seek advice from the local authority regarding disposal.
Section 7: Handling and Storage

Precautions for safe handling
Avoid contact with skin, eyes, and mucosa. Keep containers adequately sealed during material transfer, transport, or when not in use. See Section 8 (Exposure Controls) for additional guidance.

Regulatory requirements
Emergency Plan required where quantities greater than 1000L are present.

Handling practices
Avoid contact with skin. Keep containers adequately sealed during material transfer, transport, or when not in use.

Approved handlers
Not required

Conditions for safe storage
Store in original container. Keep container sealed when not in use. Keep out of reach of children.

Store site requirements
Store away from light between 2°C and 8°C. Do not freeze.

Packaging
PG III (Limited Quantities – Schedule 4)

Section 8: Exposure Control/Personal Protection

Workplace exposure standards
Mineral Oil: TWA 5mg/m³ (Sampled by a method that does not collect vapour) STEL 10 mg/m³

Application in the workplace
Ensure adequate ventilation. Keep container sealed when not in use.

Exposure standards outside the workplace
No TEL is set for this substance at this time
EEL - not applicable

Personal protection
Wear chemical resistant gloves, facemask or goggles.

Engineering controls
The health hazard risks of handling this material are dependent on many factors, including physical form, duration and frequency of process or task, and effectiveness of engineering controls. Site-specific risk assessments should be conducted to determine the feasibility and the appropriateness of all exposure control measures. Exposure controls for normal operating or routine procedures follow a tiered strategy. Engineering controls are the preferred means of long-term or permanent exposure control. If engineering controls are not feasible, appropriate use of personal protective equipment (PPE) may be considered as alternative control measures. Exposure controls for non-routine operations must be evaluated and addressed as part of the site-specific risk assessment.

Section 9: Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Oily opaque liquid</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Not determined</td>
</tr>
<tr>
<td>Melting/Softening point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapour Pressure</td>
<td>Not determined</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.00</td>
</tr>
<tr>
<td>Solubility (H₂O)</td>
<td>Emulsifiable</td>
</tr>
<tr>
<td>Percent Volatiles</td>
<td>Not determined</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not determined</td>
</tr>
</tbody>
</table>
Section 10: Stability and Reactivity

Stability of the substance: Stable under normal conditions.

Conditions to avoid: Avoid high temperatures

Material to avoid: Avoid food products

Hazardous decomposition products: Carbon oxides (COx)

Section 11: Toxicological Information

Acute effects for individual ingredients only

ORAL: Thiomersal: LD50 40mg/kg/bw (rat) [ERMANZ]

TEL: No TEL is set for this substance at this time.

Chronic/long term effects for individual ingredients only

Thiomersal has been documented as a sensitiser. [All references from NTP]

Section 12: Environmental Information

Effects for individual ingredients only

EEL: Not applicable

Section 13: Disposal Considerations

Disposal information

Disposal: Dispose of unused contents in a suitable landfill.

Container Disposal: Dispose of empty container by puncturing and burying in a suitable landfill.

Reference: Current version of NZS 8409 Management of Agrichemicals

Section 14: Transport Information

Relevant information: Not classified as a dangerous good for transport

Section 15: Regulatory Information

Regulatory status

ERMA Approval Code: HSR000015
For full listings of controls see www.epa.govt.nz

ACVM Registration No: A1992
For conditions of registration see www.foodsafety.govt.nz

HSNO and ACVM controls: Emergency Plan: 1000 Litres

Section 16: Other Information

Additional information: Footvax is a registered trademark.

Schering-Plough Animal Health Ltd known as MSD Animal Health, is a subsidiary of Merck & Co., Inc., Whitehouse Station, NJ, USA. Schering-Plough urges each user or recipient of this SDS to read the entire data sheet to become aware of the potential hazards associated with this material. This SDS summarises, at the date of issue, our best knowledge of the health and safety hazard information. Although reasonable care has been taken in the preparation of this document, Schering-Plough Animal Health Ltd extend no warranties and make no representations as to the accuracy or completeness of the information contained therein, and assume no responsibility regarding the suitability.
of this information for the user's intended purposes or for the consequence of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).