Section 1 - Identification of The Material and Supplier

Chemical nature: A soluble form of glycoproteins of Hendra virus in a suitable medium.

Trade Name: Equivac HeV

Other names: Hendra Virus Vaccine for horses.

Product Use: For active immunisation of horses against Hendra virus.

Creation Date: June, 2012

This version issued: June, 2012 and is valid for 5 years from this date.

Section 2 - Hazards Identification

Statement of Hazardous Nature
This product is classified as: Not classified as hazardous according to the criteria of SWA.

Risk Phrases: Not Hazardous - No criteria found.

Safety Phrases: S25. Avoid contact with eyes.

SUSMP Classification: S4

ADG Classification: None allocated. Not a Dangerous Good under the ADG Code.

UN Number: None allocated

Emergency Overview

Physical Description & colour: Clear liquid. Presented in a disposable glass syringe containing 1mL

Odour: No odour.

Major Health Hazards: no significant risk factors have been found for this product. This is a physiologically active product and so contact should be minimised, especially if the user is taking a form of medication, as interactions can sometimes give unexpected and undesired results.

Potential Health Effects

Inhalation:
Short term exposure: Significant inhalation exposure is considered to be unlikely. Available data indicates that this product is not harmful. In addition product is unlikely to cause any discomfort or irritation.
Long Term exposure: No data for health effects associated with long term inhalation.

Skin Contact:
Short term exposure: Available data indicates that this product is not harmful. It should present no hazards in normal use. In addition product is unlikely to cause any discomfort in normal use.
Long Term exposure: No data for health effects associated with long term skin exposure.

Eye Contact:
Short term exposure: Exposure via eyes is considered to be unlikely. This product may be mildly irritating to eyes, but is unlikely to cause anything more than mild discomfort which should disappear once product is removed.
Long Term exposure: No data for health effects associated with long term eye exposure.

Ingestion:
Short term exposure: Significant oral exposure is considered to be unlikely. However, this product may be mildly irritating to mucous membranes but is unlikely to cause anything more than mild transient discomfort.
Long Term exposure: No data for health effects associated with long term ingestion.

Carcinogen Status:
SWA: No significant ingredient is classified as carcinogenic by SWA.
NTP: No significant ingredient is classified as carcinogenic by NTP.
IARC: No significant ingredient is classified as carcinogenic by IARC.

### Section 3 - Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS No</th>
<th>Conc, %</th>
<th>TWA (mg/m³)</th>
<th>STEL (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soluble form of glycoprotein of Hendra Virus</td>
<td>not set</td>
<td>100µg/mL</td>
<td>not set</td>
<td>not set</td>
</tr>
<tr>
<td>Thiomersal</td>
<td>54-64-8</td>
<td>0.01% w/w</td>
<td>not set</td>
<td>not set</td>
</tr>
<tr>
<td>Synthetic adjuvant</td>
<td>12.5</td>
<td>not set</td>
<td>not set</td>
<td>not set</td>
</tr>
<tr>
<td>Other non hazardous ingredients</td>
<td>secret</td>
<td>to 100</td>
<td>not set</td>
<td>not set</td>
</tr>
</tbody>
</table>

Note: This vaccine contains no genetically modified organisms. There is no live or inactivated Hendra virus in this product. This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

The SWA TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak" is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

### Section 4 - First Aid Measures

**General Information:**
You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this MSDS with you when you call.

**Self Injection:** Accidental self injection may lead to an inflammatory response. Medical advice should be sought on the management of deep injections, particularly those near a joint or associated with bruising. If possible the application of gentle squeezing pressure with absorbent material (e.g. facial tissues) at the injection site will swab up unabsorbed vaccine. Strong squeezing of the site should be avoided. The damaged area should be thoroughly cleansed and a topical antiseptic applied. Check your tetanus immunisation status.

**Inhalation:** First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

**Skin Contact:** Irritation is unlikely. However, if irritation does occur, flush with lukewarm, gently flowing water for 5 minutes or until chemical is removed.

**Eye Contact:** If this product comes in contact with the eyes:
1. Immediately hold the eyes open and wash with fresh running water.
2. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
3. If pain persists or recurs seek medical attention.
4. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

**Ingestion:** If product is swallowed or gets in mouth, do NOT induce vomiting; wash mouth with water and give some water to drink. If symptoms develop, or if in doubt contact a Poisons Information Centre or a doctor.

### Section 5 - Fire Fighting Measures

**Fire and Explosion Hazards:** The major hazard in fires is usually inhalation of heated and toxic or oxygen deficient (or both), fire gases. There is no risk of an explosion from this product under normal circumstances if it is involved in a fire.

Only small quantities of decomposition products are expected from this product at temperatures normally achieved in a fire. This will only occur after heating to dryness. Not usually considered a potential hazard.

**Extinguishing Media:** Not combustible. Use extinguishing media suited to burning materials.

**Fire Fighting:** If a significant quantity of this product is involved in a fire, call the fire brigade.

**Flash point:** Does not burn.

**Upper Flammability Limit:** Does not burn.

**Lower Flammability Limit:** Does not burn.

**Autoignition temperature:** Not applicable - does not burn.

**Flammability Class:** Does not burn.
Section 6 - Accidental Release Measures

Accidental release: This product is sold in small packages, and the accidental release from one of these is not usually a cause for concern. For minor spills, refer to product label for specific instructions. No special protective clothing is normally necessary because of this product. However it is good practice to wear latex gloves when handling injectables. In the event of a major spill, prevent spillage from entering drains or water courses and call emergency services.

Section 7 - Handling and Storage

Handling: Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this MSDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

Storage: Store at 2-8°C (refrigerate). Do not freeze. Protect from light.
1. Store in original containers.
2. Keep containers securely sealed.
3. Store in a cool, dry, well-ventilated area.
4. Store away from incompatible materials and foodstuff containers.
5. Protect containers against physical damage and check regularly for leaks.
6. Observe manufacturer's storage and handling recommendations.

Section 8 - Exposure Controls and Personal Protection

The following Australian Standards will provide general advice regarding safety clothing and equipment:

SWA Exposure limits

TWA (mg/m³) STEL (mg/m³)

Exposure limits have not been established by SWA for any of the significant ingredients in this product.

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

Ventilation: No special ventilation requirements are normally necessary for this product. However make sure that the work environment remains clean and that vapours and mists are minimised.

Eye Protection: Eye protection is not normally necessary when this product is being used. However, if in doubt, wear suitable protective glasses or goggles.

Skin Protection: The information at hand indicates that this product is not harmful and that normally no special skin protection is necessary. However, we suggest that you routinely avoid contact with all chemical products and that you wear suitable gloves (preferably elbow-length) when skin contact is likely.

Protective Material Types: There is no specific recommendation for any particular protective material type.

Respirator: Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above.

Section 9 - Physical and Chemical Properties:

Physical Description & colour: Clear liquid. Presented in a disposable glass syringe containing 1mL

Odour: No odour.

Boiling Point: Approximately 100°C at 100kPa.

Freezing/Melting Point: Approximately 0°C.

Vapour Pressure: 2.37 kPa at 20°C (water vapour pressure).

Vapour Density: As for water.

Specific Gravity: 1.01

Water Solubility: Completely soluble in water.

pH: No data. Expected to be neutral.

Volatility: No data.

Odour Threshold: No data.

Evaporation Rate: As for water.

Coeff Oil/water distribution: No data

Autoignition temp: Not applicable - does not burn.
Section 10 - Stability and Reactivity

Reactivity: This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

Conditions to Avoid: This product should be kept in a cool place, preferably below 30°C. Keep containers tightly closed. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.

Incompatibilities: No particular Incompatibilities.

Fire Decomposition: No specific data. Based on composition of proteins and fats, the following might be expected: Carbon dioxide, and if combustion is incomplete, carbon monoxide and possibly smoke. Nitrogen and its compounds, and under some circumstances, oxides of nitrogen. Oxides of sulfur (sulfur dioxide is a respiratory hazard) and other sulfur compounds; also water.

Polymerisation: Polymerisation reactions are unlikely; they are not expected to occur.

Section 11 - Toxicological Information

Target Organs: There is no data to hand indicating any particular target organs.

### Classification of Hazardous Ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Risk Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>No ingredient mentioned in the HSIS Database is present in this product at hazardous concentrations.</td>
<td></td>
</tr>
</tbody>
</table>

Section 12 - Ecological Information

Insufficient data to be sure of status. Expected to not be an environmental hazard.

Section 13 - Disposal Considerations

Disposal: Dispose of empty containers by wrapping with paper and putting in garbage. Discarded needles should immediately be placed in a designated and appropriately labelled sharps container. For larger quantities, if recycling or reclaiming is not possible, use a commercial waste disposal service.

Section 14 - Transport Information

ADG Code: This product is not classified as a Dangerous Good. No special transport conditions are necessary unless required by other regulations.

Section 15 - Regulatory Information

AICS: All of the significant ingredients in this formulation are compliant with NICNAS regulations.

Section 16 - Other Information

This MSDS contains only safety-related information. For other data see product literature.

### Acronyms:

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADG Code</td>
<td>Australian Code for the Transport of Dangerous Goods by Road and Rail (7\textsuperscript{th} edition)</td>
</tr>
<tr>
<td>AICS</td>
<td>Australian Inventory of Chemical Substances</td>
</tr>
<tr>
<td>SWA</td>
<td>Safe Work Australia, formerly ASCC and NOHSC</td>
</tr>
<tr>
<td>CAS number</td>
<td>Chemical Abstracts Service Registry Number</td>
</tr>
<tr>
<td>IARC</td>
<td>International Agency for Research on Cancer</td>
</tr>
<tr>
<td>NTP</td>
<td>National Toxicology Program (USA)</td>
</tr>
<tr>
<td>R-Phrase</td>
<td>Risk Phrase</td>
</tr>
<tr>
<td>SUSMP</td>
<td>Standard for the Uniform Scheduling of Medicines &amp; Poisons</td>
</tr>
<tr>
<td>UN Number</td>
<td>United Nations Number</td>
</tr>
</tbody>
</table>

Contact Points:

<table>
<thead>
<tr>
<th>Pfizer</th>
<th>1800 814 883</th>
</tr>
</thead>
<tbody>
<tr>
<td>Police and Fire Brigade:</td>
<td>Dial 000</td>
</tr>
</tbody>
</table>

If ineffective: Dial Poisons Information Centre (13 1126 from anywhere in Australia)

Please read all labels carefully before using product.