

# MSDS - Material Safety Data Sheet

## Vaxsafe<sup>®</sup> HVT Vaccine (living)

**BIOPROPERTIES Pty. Ltd.**

ACN 007 303 728

36 Charter Street  
Ringwood VIC 3134  
AUSTRALIA

Telephone: 03 9876 0567  
Facsimile: 03 9876 0556  
Emergency: 0417 548 879

### WORK HAZARD ASSESSMENT

The vaccine is not classified as hazardous to health according to criteria of Worksafe Australia.

Note: This product is stored in liquid nitrogen which can cause frostbite and replace air in enclosed spaces. Before working with the vaccine it is important to become fully familiar with the safe use and handling of liquid nitrogen – see AS 1894 - 1976 *Code of practice for the safe handling of Cryogenic Fluids*, and study its MSDS.

### PRODUCT IDENTIFICATION

**Product Name:** Vaxsafe<sup>®</sup> HVT Vaccine (living)  
**Other Names:** HVT Vaccine, Herpesvirus of Turkeys, Strain FC 126  
**Product Code:** 9502 HVT.  
**APVMA No:** 50538  
**UN Number:** None allocated.  
**Dangerous Goods Class/Subsidiary Risk:** None allocated.  
**Hazchem Code:** None allocated.  
**Poisons Schedule Number:** None allocated.  
**Product Type:** Poultry vaccine.  
**Chemical Family:** The active ingredient consists of an avian herpesvirus in a protective buffer.  
**Use:** As a vaccine to control Marek's Disease in chickens.  
**Method of Use:** Given by injection to day-old chicks or to 18-day embryos prior to hatch.

### PHYSICAL DESCRIPTION AND PROPERTIES

**Appearance:** Frozen, pale pink or straw-coloured liquid in a labelled, sealed, clear glass ampoule stored in liquid nitrogen sufficient for 1000, 2000, 3000 or 4000 doses.  
**Melting Point:** Not relevant.  
**Boiling Point:** Not relevant.  
**Vapour Pressure:** Not relevant.  
**Volatile Materials:** Not available.  
**Specific Gravity:** Not relevant.  
**Flashpoint:** Not relevant.  
**Flammability Limits:** Not relevant.  
**Solubility in Water:** Fully miscible.  
**pH:** Not available.

# MSDS - Material Safety Data Sheet

## Vaxsafe<sup>®</sup> HVT Vaccine (living)

INGREDIENTS			Worksafe Exposure Limits	
Chemical Name	CAS #	Proportion By Volume	TWA mg/m <sup>3</sup>	STEL mg/m <sup>3</sup>
Herpesvirus of turkeys, Strain FC126, living, in SPF* chicken embryo cells suspended in a buffer of ingredients determined not to be hazardous (including animal tissue components).	None allocated	96.25%	None allocated	None allocated
Dimethyl Sulphoxide (DMSO)	67-68-5	3.75%	None allocated	None allocated

\*SPF = Specific Pathogen Free.

This is a commercial product and the exact ratio of components may vary. Trace quantities of impurities are also likely.

### HEALTH HAZARD INFORMATION

#### HEALTH EFFECTS

- Acute:** Not available.
- Swallowed:** Not available.
- Eye:** Not available.
- Skin:** Possible mild irritation with redness, itching and urticarial wheals.
- Inhaled:** Not relevant.
- Chronic:** Not available.
- Injection:** Needlestick injuries can occur when manual vaccination techniques are used. Resultant injuries are due to the effects of the penetration of the needle, its cleanliness at the time of penetration, the volume injected, and possibly some effect due to the presence of DMSO in the inoculum. The inoculum itself is not regarded as toxic, it is injected into day-old chicks or embryos as part of normal vaccination procedures.

#### FIRST AID

- Swallowed:** Rinse mouth with clean, fresh water and swallow some clean water. If symptoms appear, seek medical advice.
  - Eye:** Hold eyes open and gently wash material from them with clean running water. Ensure irrigation under eyelids by occasionally lifting them. Do not attempt to remove contact lenses unless trained to do so. If irritation persists, seek medical advice.
  - Skin:** Wash affected area with soap and cold water. If irritation persists, seek medical advice.
  - Inhaled:** Direct inhalation is not relevant. If inhaled after generation of a mist, remove person to fresh air and observe until recovered. If irritation or other symptoms persist, seek medical advice.
  - Injection:** Wash the wound under clean running water, cover the wound with a band-aid to stop any penetration of dirt and seek medical or paramedical advice as to the extent of tissue damage.
- First Aid Facilities:** No special facilities are required.

#### ADVICE TO DOCTOR:

The product contains low levels of DMSO which can act as a carrier across cell membranes, it contains animal proteins that could cause allergic reactions. Apart from the vaccine itself, any viable microorganisms present would have entered at the time of exposure.

Poisons Information Centre: 13 11 26 (anywhere in Australia)

# MSDS - Material Safety Data Sheet

## Vaxsafe<sup>®</sup> HVT Vaccine (living)

---

### PRECAUTIONS FOR USE

---

**Exposure Standards:** No time weighted average (TWA) has been set. There is a blanket recommendation of 10 mg/m<sup>3</sup> for inhalable dusts or mists when limits have not otherwise been established. The nature of this product makes it unlikely that this level will be approached in normal use.

**Engineering Controls:** In normal use concentrations should be well below the TWA value. If necessary, values may be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe airborne concentrations of mists, dusts or vapours are high, you are advised to modify the process or environment to reduce the problem.

**Segregation of Processes from Personnel:** Store the product and all containers of liquid nitrogen in a storage area that is both well-ventilated and well away from staff.

**Mechanical Handling:** Use only approved equipment and processes.

**Capture of Substances at Source and Disposal with Local Exhaust Ventilation:** Liquid nitrogen: the storage area must be well ventilated so as to remove the gas generated to external air without allowing it to penetrate confined areas. Provide adequate local exhaust and dilution ventilation.

**Dilution Ventilation:** Liquid nitrogen: ventilation should be such that there is a plentiful back-up supply of fresh air to the storage area.

#### Personal Protection:

**Respirator Type:** Provided the operator is working in a well-ventilated area, a respirator is not necessary. Do **not** work with liquid nitrogen in small, poorly-ventilated areas without air drainage at floor level.

**Glove Type:** Wear gloves designed for use in freezers and use forceps to handle the product. Gloves **do not** allow the wearer to immerse any part of his or her hands in liquid nitrogen.

**Eye Protection:** Wear a polycarbonate faceshield to protect against both splash and the shattering of ampoules. See AS 1336 and AS/NZS 1337.

**Clothing:** Wear overalls (see AS 2919) and boots capable of protecting against penetration of liquids (see AS/NZS 2210 - Occupational Protective Footwear).

**Other:** Ear plugs or ear muffs should be worn when removing ampoules from liquid nitrogen, as an exploding ampoule may cause hearing loss and/or "ringing" in the ears.

Always wash your hands after using the product.

Remove contaminated clothing without delay and wash it and other personal protective equipment before storing or re-use.

#### Flammability:

**Fire Hazards:** Non-flammable.

#### Sources of

**Ignition Advice:** Not relevant.

# MSDS - Material Safety Data Sheet

## Vaxsafe<sup>®</sup> HVT Vaccine (living)

---

### SAFE HANDLING INFORMATION

---

#### Storage and Transport:

- Location:** Store the product and all containers of liquid nitrogen in a cool, dry, well ventilated area that is segregated from personnel and out of direct sunlight.
- Security:** Keep in a secure place with restricted access and away from children.
- Ventilation:** Always keep containers with liquid nitrogen in well-ventilated areas that allow escape of gas given off (provide drains at floor level) and never within enclosed spaces such as the cabin of a vehicle.
- Type of Container/Package:** A 2 mL heat-sealed glass ampoule with a clear label, stored in liquid nitrogen on an aluminium cane.
- Special Transport Requirements:** Keep in well-ventilated areas at all times, never within the driving compartment.

#### Spills and Disposal:

- Clean Up Spills/Leaks:** Allow the liquid nitrogen to evaporate, treat the area with disinfectant and then mop up all remaining liquids. In the unlikely event of major run off, advise emergency services if a significant quantity of material enters drains.
- Precautions for Clean Up Crew:** Be careful not to expose yourself to liquid nitrogen and take care that the area is well-ventilated.
- Disposal Method:** Mop up liquids and sweep up broken containers. Dispose of solid waste by wrapping in paper prior to disposal in compliance with local, State and Federal regulations.

#### Fire and Explosion Hazard:

- Hazards of Use/Storage:** *Liquid nitrogen:* cracked or improperly-sealed ampoules when placed in liquid nitrogen can cause leakage of liquid nitrogen into the ampoule. When removed from storage the rapid rise in pressure caused by the change from liquid to gaseous nitrogen can cause the ampoule to explode.
- List of dangerous Decomposition or Combustible Products:** Not available.
- Fire-fighting Recommendations:** Not relevant.
- Types of Extinguisher/ Fire-fighting Agents:** Not relevant.
- Precautions:** Not available.
- Protective Clothing:** See above, under Personal Protection.
- Reactivity:** Not available.
- Hazchem Code:** None assigned.

## MSDS - Material Safety Data Sheet

# Vaxsafe<sup>®</sup> HVT Vaccine (living)

---

---

### OTHER INFORMATION

---

This MSDS has been prepared in accord with the Worksafe Australia "National Code for Preparation of Material Safety Data Sheets", 1994

---

### CONTACT POINT

---

**Title:** Technical & Marketing Manager

BIOPROPERTIES Pty Ltd  
ACN 007 303 728  
36 Charter Street  
Ringwood  
Victoria 3134, Australia

	<b>Australia</b>	<b>International</b>
<b>Telephone:</b>	03 9876 0567	+61 3 9876 0567
<b>Facsimile:</b>	03 9876 0556	+61 3 9876 0556
<b>Emergency Telephone:</b>	0417 548 879	+61 417 548 879
<b>Email:</b>	chris.morrow@bioproperties.com.au	

### READ ALL LABELS AND INSTRUCTION LEAFLETS BEFORE USING THIS PRODUCT

#### WARRANTY AND DISCLAIMER:

To the best of BIOPROPERTIES' knowledge the health, safety and handling information in this MSDS is accurate at the date hereof. BIOPROPERTIES assumes no responsibility regarding the suitability of this information for the user's intended purposes or for the consequence of such use. If further information is required to ensure an appropriate risk assessment is made, the user should contact BIOPROPERTIES. BIOPROPERTIES gives no warranty (express or implied) with respect to this MSDS or the product, including without limitation any warranty as to completeness, merchantability or fitness for a particular purpose. Under no circumstances shall BIOPROPERTIES be liable for indirect, special, consequential or punitive damages.