

# MSDS - Material Safety Data Sheet

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

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### 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 remove air from 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> SBH Vaccine (living)  
**Other Names:** HVT & SB1 Vaccine  
**Product Code:** 9801 SBH  
**AVPMA No.** 63411  
**UN No:** None allocated  
**Dangerous Goods** None allocated  
**Class/Subsidiary Risk:**  
**Hazchem Code:** None allocated  
**Poisons Schedule No:** None allocated.  
**Product Type:** Poultry vaccine  
**Chemical Family:** The active ingredients consist of a mixture of 2 avian herpesviruses 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.  
**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

### INGREDIENTS

Chemical Name	CAS #	Proportion	Worksafe Exposure Limits	
			TWA mg/m <sup>3</sup>	ES-STEL mg/m <sup>3</sup>
Herpesvirus of turkeys, Strain FC 126, living, cell associated (primary SPF* chicken embryo fibroblast cells) and Marek's disease virus, strain SB1, living, cell-associated (in primary SPF chicken embryo fibroblast cells) in a ratio of approx. 2:1	Not set	77.5%	Not set	Not set
Calf serum	Not set	15%	Not set	Not set
Dimethyl Sulphoxide (DMSO)	67-68-5	3.75%	Not set	Not set
Ingredients determined not to be hazardous	Not set	3.75%	Not set	Not set

\*SPF = Specific Pathogen Free.

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

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### HEALTH HAZARD INFORMATION

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#### 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:** Needle stick 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 and 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 water. If irritation occurs, seek medical advice.
- Inhaled:** Direct inhalation is not relevant. If inhaled after generation of mists or dusts, 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 the tissue damaged.
- 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. Any viable microorganisms present would have entered at the time of exposure.

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

### PRECAUTIONS FOR USE

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- 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:** The product is stored in Liquid nitrogen and all containers of liquid nitrogen should be in storage area that is both well-ventilated and is well away from staff.

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**Mechanical Handling:** Liquid nitrogen: use only equipment and processes that are approved for use with liquid nitrogen.

**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 the 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:** Wear waterproof gloves to give skin protection from the vaccine but use gloves that are thin enough to allow good sensitivity of touch. Industrial safety glasses giving protection against splash should be worn as a general measure. See AS 1336 and AS/NZS 1337.

**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 face shield to protect against both splash and the shattering of ampoules. See AS 1336 and AS/NZS 1337.

**Clothing:** Wear overalls (see AS2919) and boots capable of protecting against penetration of liquids (see AS/NZ 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:** Not relevant.

**Advice:**

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## SAFE HANDLING INFORMATION

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### 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 and never within enclosed spaces, such as within the cab of a vehicle.

**Type of Container/Package:** A 2 mL heat sealed glass ampoule, with a clear label, stored in liquid nitrogen on an aluminum 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, and then mop up any 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:** Discard in accordance with local, state and federal regulations.

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### Fire and Explosion Hazard:

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

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### OTHER INFORMATION

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

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### CONTACT POINT

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

#### WARRANTY AND DISCLAIMER

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