

# SAFETY DATA SHEET

## VitriBlast™ Kit

### 1.0 Identification of the Substance/Mixture and of the Company/Undertaking

Product Name: **VitriBlast™ Kit**

Product Catalogue No: **VBK-010**

Sterile salt solutions containing human serum albumin (1-3), Ficoll and Sucrose (3). Separate solutions containing DMSO and Ethylene glycol. For vitrification of blastocysts in vitro in the laboratory. 10 mL, in borosilicate glass bottles (fiolax), with polypropylene screw caps. DMSO and Ethylene glycol in 5 mL borosilicate glass bottles (fiolax), with polypropylene screw caps.

Manufacturer: **NidaCon International AB**, Flöjelbergsgatan 16B, SE-431 37, Mölndal, Sweden.

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### 2.0 Hazards Identification

**Solutions 1-3** are classified as non-hazardous according to Dangerous Substances Directive 67/548/EEC, Dangerous Preparations Directive 1999/45/EC, CLP Regulation (EC) No 1272/2008 and US OSHA regulations.

**DMSO:** Not classified as dangerous according to directive 67/548/EEG. DMSO may cause skin irritation. DMSO is readily absorbed through skin and may carry other dissolved chemicals into the body. A garlic-onion odour may develop on breath and skin. Absorption through skin may also cause diarrhoeas, affect respiration, blood behaviour (fatigue, dizziness, headache), vision (disturbances of colour vision) and urinary system (haematuria).

**Ethylene glycol:** Dangerous to ingest. Repeated excessive ingestion may affect the liver, kidneys, central and peripheral nervous system and blood.

Further information under no. 11, Toxicological Information.

### 3.0 Composition/Information on Ingredients

Solutions 1-2: Salt solutions containing human Serum Albumin

Solution 3: Salt solution containing human Serum Albumin, Sucrose and Ficoll

DMSO:  $C_2H_6OS$

Ethylene glycol:  $C_2H_6O_2$

### 4.0 First-Aid Measures

If inhaled:	Remove from exposure. Transfer person to fresh air. If discomfort persists, obtain medical attention.
In case of skin contact:	Wash off with soap and plenty of water. Remove contaminated clothing.
In case of eye contact:	After initial flushing with physiological saline, remove any contact lenses. Flush thoroughly with physiological saline for 15 minutes. If discomfort persists, obtain medical attention.
If swallowed:	Rinse mouth with water and give water to drink. Never give water to unconscious person. Obtain medical attention.

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## 5.0 Fire-Fighting Measures

Suitable extinguishing media:	Carbon dioxide, dry chemicals or foam.
Special fire or explosion hazards:	None known.
Products of combustion:	None known.
Special exposure hazards:	None known.
Protective equipment for fire fighters:	Wear self contained breathing apparatus for fire fighting if necessary.

## 6.0 Accidental Release Measures

Personal Precautions:	Do not inhale vapours, mist or gas.
Environmental Precautions:	Do not let product enter drains (DMSO and Ethylene glycol).
Clean-Up Methods:	Wipe up using appropriate absorbent material and dispose with normal laboratory refuse (Ethylene glycol: treat as dangerous goods), according to community, state or federal regulations. Store in suitable, closed containers.

## 7.0 Handling and Storage

Incompatible materials:	Not applicable.
Storage conditions:	Store at room temperature or if opened at +2° to +8°C. After opening at +2° to +8°C
Handling Recommendation (DMSO):	Should be stored away from ignition sources. No smoking. Avoid build-up of electrostatic charge.
Handling Precautions:	Avoid inhaling, ingestion, and contact with eyes and skin.

## 8.0 Exposure Controls/Personal Protection

Exposure limit:	Not established.
Ventilation requirements:	Normal ventilation.
Respiratory protection:	If dried down to powder form, use face mask when handling large quantities.
Eye protection:	Use safety goggles when handling large quantities.
Skin protection:	Use protection gloves when handling large quantities, or at repeated prolonged contact.

A garlic-onion odour may develop on breath and skin when exposed to DMSO. Avoid ingestion and contact with eyes of all components in the kit.

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## 9.0 Physical and Chemical Properties

	<b>Solutions 1-3</b>	<b>DMSO</b>	<b>Ethylene glycol</b>
Appearance	Clear, aqueous, transparent Liquids	Clear, aqueous liquids.	Clear, aqueous liquids.
Flashpoint (°C):	Not established	87°C in closed cup	111°C in closed cup
Odour	Odourless	Odourless	Odourless
Upper flammable limits	Not established	42% (V)	15.3% (V)
Lower flammable limits	Not established	3.5% (V)	3.2% (V)
Ignition temperature	Not established	301°C	400°C
Solubility in water	Already aqueous solution	Completely miscible	Completely miscible
Melting point	Not established	18,4°C	13°C
Boiling point	Not established	189°C at 1.013hPa	196-198°C
Acid/Base	pH 7.25-7.45	Not established, does not affect pH of solutions 1-3	Not established, does not affect pH of solutions 1-3
Osmolality	Sol1 280-300mOsm Sol 2 280-300 mOsm Sol 3 1100-1500 mOsm		
Viscosity	Not established	Not established	Not established
Vapour Pressure	Not established	0.55 hPa at 20°C	0.11-0.13 hPa at 20°C

## 10.0 Stability and Reactivity

Stability under normal conditions:

Stable if stored as recommended

Hazardous Decomposition:

*Solutions 1-3*: none established

*DMSO*; carbon oxides, sulphur oxides

*Ethylene glycol*; oxides of carbon.

Hazardous Polymerization:

Will not occur.

Incompatible Materials to avoid:

*Solutions 1-3*: none established

*DMSO*; acid chlorides, strong acids, strong oxidizing agents, strong reducing agents, phosphorous halides

*Ethylene glycol*; strong acids, strongly oxidizing agents, strong bases, aldehydes, aluminium

## 11.0 Toxicological Information

**Solutions 1-3** are essentially inert. No toxic or ill effects under normal operating conditions. LD<sub>50</sub> is not established. Ethylene glycol and DMSO may be toxic in large amounts. Not applicable in the VitriBlast™ kit.

More detailed information for DMSO: Sigma-Aldrich RTECS PV6210000 and for Ethylene glycol: Sigma-Aldrich RTECS KW2975000

## 12.0 Ecological Information

**Solutions 1-3**: No known adverse ecological effects in the amounts provided in the kit.

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## 13.0 Disposal Considerations

The glass bottles and paper cartons can be recycled without adverse problems in the recycling system for glass and paper, respectively.

**Solutions 1-3:** According to applicable regulations for aqueous, physiological salt solutions, i.e., open container and flush contents with tap water via a drain into the sewage system according to local community, state or federal regulations.

**DMSO:** Do not dispose in drain.

**Ethylene glycol:** Do not dispose in drain.

## 14.0 Transport Information

Non-regulated transport. Non-dangerous goods.

## 15.0 Regulatory Information

See hazards identification.

United States: 510 (k) K984172

## 16.0 Other information

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