

MATERIAL SAFETY DATA SHEET

VitriBlast™ Kit

1.0 Identification of the Substance/Preparation and of the Company/Undertaking

Product Name: **VitriBlast™ Kit**

Product Catalogue No: **010-VBK**

Sterile salt solutions containing human serum albumin (1-3), Ficoll and Sucrose (3). Separate solutions containing DMSO and Ethyleneglycol. For vitrification of blastocysts in vitro in the laboratory. 10 mL, in borosilicate glass bottles (fiolax), with polypropylene screw caps. DMSO and Ethyleneglycol 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 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: $C_2H_6O_2$

3.0 Hazard Identification

Solutions 1-3: None established

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 odor may develop on breath and skin. Absorption through skin may also cause diarrheas, affect respiration, blood behaviour (fatigue, dizziness, headaches), vision (disturbances of color vision) and urinary system (hematuria).

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.

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.
In case of eye contact:	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.

5.0 Fire-Fighting Measures

Suitable extinguishing media:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special fire or explosion hazards:	Not applicable.
Products of combustion:	Not applicable.
Special exposure hazards:	Not applicable.
Protective equipment for fire fighters:	Wear self contained breathing apparatus for fire fighting if necessary.

6.0 Accidental Release/Spill Measures

Personal Precautions:

Environmental Precautions:

Clean-Up Methods:

Floors may be slippery, do not inhale vapours, mist or gas.

Do not let product enter drains (DMSO and Ethylene glycol).

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:

Storage conditions:

Handling Recommendation (DMSO):

Handling Precautions:

Not applicable.

Store at room temperature or refrigerated +2° to +8°C.

After opening at +2° to +8°C

Should be stored away from ignition sources. No smoking. Avoid build-up of electrostatic charge.

Avoid inhaling, ingestion, and contact with eyes and skin.

8.0 Exposure Control/Personal Protection

Exposure limit:

Ventilation requirements:

Respiratory protection:

Eye protection:

Skin protection:

Not established.

Normal ventilation.

If dried down to powder form, use face mask when handling large quantities

Use safety goggles when handling large quantities.

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.

9.0 Physical and Chemical Properties

<i>Clear, aqueous, transparent Liquids</i>	Solutions 1-3	DMSO	Ethylene glycol
Flashpoint (°C):	Not established	87°C in closed cup	111°C in closed cup
Odour	Odourless	Odourless	Odourless
Upper explosion limit	Not established	42% (V)	15.3% (V)
Lower explosion limit	Not established	3.5% (V)	3.2% (V)
Ignition temperature	Not established	301°C	400°C
Solubility in water	Already water solution	Completely miscible	Completely miscible soluble
Melting point	Not established	18,4°C	13°C
Boiling point	Not established	189°C at 1.013hPa	196-198°C
Acid/Base	pH 7.2-7.4 (neutral)	Not established, does not affect pH of Solutions 1-3	Not established, does not affect pH of Solutions 1-3
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:

Hazardous Decomposition:

Hazardous Polymerization:

Incompatible Materials to avoid:

Stable if stored as recommended

Solutions 1-3: none established

DMSO; carbon oxides, sulphur oxides

Ethylene glycol; oxides of carbon.

Will not occur.

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. LD₅₀ 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.

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

Transport Information: Non-regulated transport. Non-dangerous goods.

15.0 Regulatory Information

Certified according to SS-EN ISO 9001 and SS-EN ISO 13485.

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