

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
 Product name : **VitriFreeze ES - Pre-incubation medium**
 Product code : VPIE005

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Industrial/Professional use spec : For professional use only
 Use of the substance/mixture : VitriFreeze ES™ are a set of media for vitrification of human embryos (zygote till expanded blastocyst stage).

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

FertiPro NV
 Industriepark Noord 32
 8730 Beernem
 Belgium
 info@fertipro.com

1.4. Emergency telephone number

Emergency number : +3250791805

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII.

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Ultrapure Water	(CAS No) 7732-18-5 (EC no) 231-791-2	90 - 99	Not classified
Human Serum Albumin	(CAS No) 70024-90-7	1 - 5	Not classified
Sodium Chloride	(CAS No) 7647-14-5 (EC no) 231-598-3	0,1 - 1	Not classified
Disodium Phosphate Dihydrate	(CAS No) 10028-24-7	0,1 - 1	Not classified
D-(+)-Glucose	(CAS No) 50-99-7 (EC no) 200-075-1	0,1 - 1	Not classified
Potassium Chloride	(CAS No) 7447-40-7 (EC no) 231-211-8	< 0,1	Not classified
Potassium Dihydrogen Phosphate	(CAS No) 7778-77-0 (EC no) 231-913-4	< 0,1	Not classified

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Calcium Chloride Dihydrate	(CAS No) 10035-04-8	< 0,1	Eye Irrit. 2, H319
Magnesium Chloride Hexahydrate	(CAS No) 7791-18-6	< 0,1	Not classified
Sodium Pyruvate	(CAS No) 113-24-6 (EC no) 204-024-4	< 0,1	Not classified

Full text of H-phrases: see section 16

Comments : The media do not contain any raw materials of direct animal-origin or materials that have been produced using animal-origin components. Components have not been in contact with material of animal origin during processing and therefore pose no TSE risk.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Assure fresh air breathing. Allow the victim to rest.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	:	Keep container closed when not in use. Keep only in the original container away from direct (sun)light. Do not freeze. Do not use after expiry date. After opening the container, the product can be safely used up to 7 days when sterile conditions are maintained and the products are stored at 2-8°C. Cannot be re-sterilized after opening.
Incompatible products	:	Strong bases. Strong acids.
Incompatible materials	:	Sources of ignition. Direct (sun)light.
Storage temperature	:	2 - 8 °C

7.3. Specific end use(s)

See instructions for use delivered with the device.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety. Avoid all unnecessary exposure.

8.2.2. Personal protection equipment

Personal protective equipment:

Wear fire/flammable resistant/retardant clothing.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye/Face protection : Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

8.2.2.2. Skin protection

Skin protection: : Complete suit protecting against chemicals, flame retardant antistatic protective clothing. The type of protection must be selected according to the concentration and volume of the dangerous substance at the specific workplace.

Hand protection : Wear protective gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to meet the specifications of EU-directive 89/686/EEC and the standard EN374 derived from it.

8.2.2.3. Respiratory protection

Respiratory protection : Wear appropriate mask. Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Other information:

Do not eat, drink or smoke during use. Do not pipette liquid using a mouth pipette.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Clear, colorless liquid.
Odour	: odourless.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Non flammable.
Explosive limits	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: 7.2 – 7.4
Viscosity, kinematic	: Not available
Solubility	: highly soluble in water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: Not available
Relative density	: Not available
Relative vapour density at 20 °C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable after transport (max. 5 days) at elevated temperature ($\leq 37^{\circ}\text{C}$). Stable for 12 months from date of manufacture.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct (sun)light. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. Fume.

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral, dermal, inhalation)	: Not classified. Extensive data from Mouse Embryo Assays have demonstrated that the medium is not toxic.
Skin corrosion/irritation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Serious eye damage/irritation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Respiratory or skin sensitisation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Specific target organ toxicity (repeated exposure)	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified
Additional information	: Based on available data, the classification criteria are not met

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

No additional information available

11.2.2. Other information

Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met
Other information	: Human Albumin Solution: The plasma which is the source of the human serum albumin is tested for antibodies to HIV and HCV and non-reactive for HbsAg, HBV RNA, HCV RNA, HIV-1 RNA and syphilis. The albumin agrees with all the requirements set forth by the European and United States health authority regarding safety. Route of exposure: Under normal conditions there is no exposure to the product.

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

12.2. Persistence and degradability

VitriFreeze ES - Pre-incubation medium	
Persistence and degradability	Not established.
Sodium Chloride (7647-14-5)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

VitriFreeze ES - Pre-incubation medium	
Bioaccumulative potential	Not established.
Sodium Chloride (7647-14-5)	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

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Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Avoid release to the environment

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) / (IMDG) / (IATA) / (ADN) / (RID) : Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR) / (IMDG) / (IATA) / (ADN) / (RID) : Not applicable

14.3. Transport hazard class(es)

Transport hazard class(es) (ADR) / (IMDG) / (IATA) / (ADN) / (RID) : Not applicable

14.4. Packing group

Packing group (ADR) / (IMDG) / (IATA) / (ADN) / (RID) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available

14.6. Special precautions for user

Overland transport / Transport by sea / Air transport / Inland waterway transport / Rail transport

No data available

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no REACH Annex XIV substances

Contains no substance on the REACH candidate list

Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Contains no substance subject to Regulation (EC) 273/2004 of the European Parliament and of the Council of 11 February 2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances.

15.1.2. National regulations

France

Occupational diseases	
Code	Description
RG 67	Nasal septum lesions caused by potassium chloride dust in potash mines and their dependencies

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

Germany

Water hazard class (WGK) : WGK 2, Significantly hazardous to water (Classification according to AwSV, Annex 1).
Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

SZW list of carcinogenic substances : None of the components are listed
SZW list of mutagenic substances : None of the components are listed
NON-limitative list of substances toxic for reproduction - Breast-feeding : None of the components are listed
NON-limitative list of substances toxic for reproduction - Fertility : None of the components are listed
NON-limitative list of substances toxic for reproduction - Development : None of the components are listed

Switzerland

Storage class (LK) : LK 10/12 - Liquids

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of H- and EUH-phrases:

Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H319	Causes serious eye irritation

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

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Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Product name : **VitriFreeze ES - Freezing 1**
Product code : VFE1001

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Industrial/Professional use spec : For professional use only
Use of the substance/mixture : VitriFreeze ES™ are a set of media for vitrification of human embryos (zygote till expanded blastocyst stage).

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

FertiPro NV
Industriepark Noord 32
8730 Beernem
Belgium
info@fertipro.com

1.4. Emergency telephone number

Emergency number : +3250791805

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

EUH phrases : EUH210 - Safety data sheet available on request

2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII.

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Ultrapure Water	(CAS No) 7732-18-5 (EC no) 231-791-2	70 - 90	Not classified
Dimethyl Sulphoxide (DMSO)	(CAS No) 67-68-5	5	Not classified
Ethylene Glycol	(CAS No) 107-21-1 (EC no) 203-473-3 (EC index no) 603-027-00-1	5	Acute Tox. 4 (Oral), H302
Human Serum Albumin	(CAS No) 70024-90-7	1 - 5	Not classified
Sodium Chloride	(CAS No) 7647-14-5 (EC no) 231-598-3	0,1 - 1	Not classified
Disodium Phosphate Dihydrate	(CAS No) 10028-24-7	0,1 - 1	Not classified
D-(+)-Glucose	(CAS No) 50-99-7 (EC no) 200-075-1	< 0,1	Not classified
Potassium Chloride	(CAS No) 7447-40-7 (EC no) 231-211-8	< 0,1	Not classified
Potassium Dihydrogen Phosphate	(CAS No) 7778-77-0 (EC no) 231-913-4	< 0,1	Not classified

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Safety Data Sheet

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Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Calcium Chloride Dihydrate	(CAS No) 10035-04-8	< 0,1	Eye Irrit. 2, H319
Magnesium Chloride Hexahydrate	(CAS No) 7791-18-6	< 0,1	Not classified
Sodium Pyruvate	(CAS No) 113-24-6 (EC no) 204-024-4	< 0,1	Not classified

Full text of H-phrases: see section 16

Comments : The media do not contain any raw materials of direct animal-origin or materials that have been produced using animal-origin components. Components have not been in contact with material of animal origin during processing and therefore pose no TSE risk.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Assure fresh air breathing. Allow the victim to rest.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.

VitriFreeze ES / VitriThaw ES

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Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Keep container closed when not in use. Keep only in the original container away from direct (sun)light. Do not freeze. Do not use after expiry date. After opening the container, the product can be safely used up to 7 days when sterile conditions are maintained and the products are stored at 2-8°C. Cannot be re-sterilized after opening.
Incompatible products	: Strong bases. Strong acids.
Incompatible materials	: Sources of ignition. Direct (sun)light.
Storage temperature	: 2 - 8 °C

7.3. Specific end use(s)

See instructions for use delivered with the device.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety. Avoid all unnecessary exposure.

8.2.2. Personal protection equipment

Personal protective equipment:

Wear fire/flammable resistant/retardant clothing.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye/Face protection : Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

8.2.2.2. Skin protection

Skin protection: : Complete suit protecting against chemicals, flame retardant antistatic protective clothing. The type of protection must be selected according to the concentration and volume of the dangerous substance at the specific workplace.

Hand protection : Wear protective gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to meet the specifications of EU-directive 89/686/EEC and the standard EN374 derived from it.

8.2.2.3. Respiratory protection

Respiratory protection : Wear appropriate mask. Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Other information:

Do not eat, drink or smoke during use. Do not pipette liquid using a mouth pipette.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Clear, colorless liquid.
Odour	: odourless.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Non flammable.
Explosive limits	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: 7.2 – 7.4
Viscosity, kinematic	: Not available
Solubility	: highly soluble in water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: Not available
Relative density	: Not available
Relative vapour density at 20 °C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable after transport (max. 5 days) at elevated temperature ($\leq 37^{\circ}\text{C}$). Stable for 12 months from date of manufacture.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct (sun)light. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. Fume.

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral, dermal, inhalation)	: Not classified. Extensive data from Mouse Embryo Assays have demonstrated that the medium is not toxic.
Skin corrosion/irritation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Serious eye damage/irritation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Respiratory or skin sensitisation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Specific target organ toxicity (repeated exposure)	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified
Additional information	: Based on available data, the classification criteria are not met

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

No additional information available

11.2.2. Other information

Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met
Other information	: Human Albumin Solution: The plasma which is the source of the human serum albumin is tested for antibodies to HIV and HCV and non-reactive for HbsAg, HBV RNA, HCV RNA, HIV-1 RNA and syphilis. The albumin agrees with all the requirements set forth by the European and United States health authority regarding safety. Route of exposure: Under normal conditions there is no exposure to the product.

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

12.2. Persistence and degradability

VitriFreeze ES - Freezing 1	
Persistence and degradability	Not established.
Sodium Chloride (7647-14-5)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

VitriFreeze ES - Freezing 1	
Bioaccumulative potential	Not established.
Sodium Chloride (7647-14-5)	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Avoid release to the environment

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) / (IMDG) / (IATA) / (ADN) / (RID) : Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR) / (IMDG) / (IATA) / (ADN) / (RID) : Not applicable

14.3. Transport hazard class(es)

Transport hazard class(es) (ADR) / (IMDG) / (IATA) / (ADN) / (RID) : Not applicable

14.4. Packing group

Packing group (ADR) / (IMDG) / (IATA) / (ADN) / (RID) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user

Overland transport / Transport by sea / Air transport / Inland waterway transport / Rail transport

No data available

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no REACH Annex XIV substances

Contains no substance on the REACH candidate list

Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Contains no substance subject to Regulation (EC) 273/2004 of the European Parliament and of the Council of 11 February 2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances.

15.1.2. National regulations

France

Occupational diseases	
Code	Description
RG 67	Nasal septum lesions caused by potassium chloride dust in potash mines and their dependencies

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

RG 84	Conditions caused by liquid organic solvents for professional use: saturated or unsaturated aliphatic or cyclic liquid hydrocarbons and mixtures thereof; liquid halogenated hydrocarbons; nitrated derivatives of aliphatic hydrocarbons; alcohols; glycols, glycol ethers; ketones; aldehydes; aliphatic and cyclic ethers, including tetrahydrofuran; esters; dimethylformamide and dimethylacetamine; acetonitrile and propionitrile; pyridine; dimethylsulfone and dimethylsulfoxide
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Germany

Water hazard class (WGK) : WGK 2, Significantly hazardous to water (Classification according to AwSV, Annex 1).
Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

SZW list of carcinogenic substances : None of the components are listed
SZW list of mutagenic substances : None of the components are listed
NON-limitative list of substances toxic for reproduction - Breast-feeding : None of the components are listed
NON-limitative list of substances toxic for reproduction - Fertility : None of the components are listed
NON-limitative list of substances toxic for reproduction - Development : None of the components are listed

Switzerland

Storage class (LK) : LK 10/12 - Liquids

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of H- and EUH-phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H302	Harmful if swallowed
H319	Causes serious eye irritation

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Product name : **VitriFreeze ES - Freezing 2**
Product code : VFE2001

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Industrial/Professional use spec : For professional use only
Use of the substance/mixture : VitriFreeze ES™ are a set of media for vitrification of human embryos (zygote till expanded blastocyst stage).

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

FertiPro NV
Industriepark Noord 32
8730 Beernem
Belgium
info@fertipro.com

1.4. Emergency telephone number

Emergency number : +3250791805

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

EUH phrases : EUH210 - Safety data sheet available on request

2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII.

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Ultrapure water	(CAS No) 7732-18-5 (EC no) 231-791-2	70 - 90	Not classified
Dimethyl sulphoxide (DMSO)	(CAS No) 67-68-5	10	Not classified
Ethylene glycol	(CAS No) 107-21-1 (EC no) 203-473-3 (EC index no) 603-027-00-1	10	Acute Tox. 4 (Oral), H302
Human serum albumin	(CAS No) 70024-90-7	1 - 5	Not classified
Sodium Chloride	(CAS No) 7647-14-5 (EC no) 231-598-3	0,1 - 1	Not classified
Disodium Phosphate Dihydrate	(CAS No) 10028-24-7	< 0,1	Not classified
D-(+)-Glucose	(CAS No) 50-99-7 (EC no) 200-075-1	< 0,1	Not classified
Potassium Chloride	(CAS No) 7447-40-7 (EC no) 231-211-8	< 0,1	Not classified
Potassium Dihydrogen Phosphate	(CAS No) 7778-77-0 (EC no) 231-913-4	< 0,1	Not classified

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Calcium chloride dihydrate	(CAS No) 10035-04-8	< 0,1	Eye Irrit. 2, H319
Magnesium chloride hexahydrate	(CAS No) 7791-18-6	< 0,1	Not classified
Sodium Pyruvate	(CAS No) 113-24-6 (EC no) 204-024-4	< 0,1	Not classified

Full text of H-phrases: see section 16

Comments : The media do not contain any raw materials of direct animal-origin or materials that have been produced using animal-origin components. Components have not been in contact with material of animal origin during processing and therefore pose no TSE risk.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Assure fresh air breathing. Allow the victim to rest.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Keep container closed when not in use. Keep only in the original container away from direct (sun)light. Do not freeze. Do not use after expiry date. After opening the container, the product can be safely used up to 7 days when sterile conditions are maintained and the products are stored at 2-8°C. Cannot be re-sterilized after opening.
Incompatible products	: Strong bases. Strong acids.
Incompatible materials	: Sources of ignition. Direct (sun)light.
Storage temperature	: 2 - 8 °C

7.3. Specific end use(s)

See instructions for use delivered with the device.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety. Avoid all unnecessary exposure.

8.2.2. Personal protection equipment

Personal protective equipment:

Wear fire/flammable resistant/retardant clothing.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye/Face protection : Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

8.2.2.2. Skin protection

Skin protection: : Complete suit protecting against chemicals, flame retardant antistatic protective clothing. The type of protection must be selected according to the concentration and volume of the dangerous substance at the specific workplace.

Hand protection : Wear protective gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to meet the specifications of EU-directive 89/686/EEC and the standard EN374 derived from it.

8.2.2.3. Respiratory protection

Respiratory protection : Wear appropriate mask. Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Other information:

Do not eat, drink or smoke during use. Do not pipette liquid using a mouth pipette.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Clear, colorless liquid.
Odour	: odourless.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Non flammable.
Explosive limits	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: 7.2 – 7.4
Viscosity, kinematic	: Not available
Solubility	: highly soluble in water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: Not available
Relative density	: Not available
Relative vapour density at 20 °C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable after transport (max. 5 days) at elevated temperature ($\leq 37^{\circ}\text{C}$). Stable for 12 months from date of manufacture.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct (sun)light. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. Fume.

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral, dermal, inhalation)	: Not classified. Extensive data from Mouse Embryo Assays have demonstrated that the medium is not toxic.
Skin corrosion/irritation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Serious eye damage/irritation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Respiratory or skin sensitisation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Specific target organ toxicity (repeated exposure)	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified
Additional information	: Based on available data, the classification criteria are not met

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

No additional information available

11.2.2. Other information

Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met
Other information	: Human Albumin Solution: The plasma which is the source of the human serum albumin is tested for antibodies to HIV and HCV and non-reactive for HbsAg, HBV RNA, HCV RNA, HIV-1 RNA and syphilis. The albumin agrees with all the requirements set forth by the European and United States health authority regarding safety. Route of exposure: Under normal conditions there is no exposure to the product.

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

12.2. Persistence and degradability

VitriFreeze ES - Freezing 2	
Persistence and degradability	Not established.
Sodium Chloride (7647-14-5)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

VitriFreeze ES - Freezing 2	
Bioaccumulative potential	Not established.
Sodium Chloride (7647-14-5)	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Avoid release to the environment

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) / (IMDG) / (IATA) / (ADN) / (RID) : Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR) / (IMDG) / (IATA) / (ADN) / (RID) : Not applicable

14.3. Transport hazard class(es)

Transport hazard class(es) (ADR) / (IMDG) / (IATA) / (ADN) / (RID) : Not applicable

14.4. Packing group

Packing group (ADR) / (IMDG) / (IATA) / (ADN) / (RID) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available

14.6. Special precautions for user

Overland transport / Transport by sea / Air transport / Inland waterway transport / Rail transport

No data available

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no REACH Annex XIV substances

Contains no substance on the REACH candidate list

Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Contains no substance subject to Regulation (EC) 273/2004 of the European Parliament and of the Council of 11 February 2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances.

15.1.2. National regulations

France

Occupational diseases	
Code	Description
RG 67	Nasal septum lesions caused by potassium chloride dust in potash mines and their dependencies

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

RG 84	Conditions caused by liquid organic solvents for professional use: saturated or unsaturated aliphatic or cyclic liquid hydrocarbons and mixtures thereof; liquid halogenated hydrocarbons; nitrated derivatives of aliphatic hydrocarbons; alcohols; glycols, glycol ethers; ketones; aldehydes; aliphatic and cyclic ethers, including tetrahydrofuran; esters; dimethylformamide and dimethylacetamine; acetonitrile and propionitrile; pyridine; dimethylsulfone and dimethylsulfoxide
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Germany

Water hazard class (WGK) : WGK 2, Significantly hazardous to water (Classification according to AwSV, Annex 1).
Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

SZW list of carcinogenic substances : None of the components are listed
SZW list of mutagenic substances : None of the components are listed
NON-limitative list of substances toxic for reproduction - Breast-feeding : None of the components are listed
NON-limitative list of substances toxic for reproduction - Fertility : None of the components are listed
NON-limitative list of substances toxic for reproduction - Development : None of the components are listed

Switzerland

Storage class (LK) : LK 10/12 - Liquids

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of H- and EUH-phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H302	Harmful if swallowed
H319	Causes serious eye irritation

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Product name : **VitriFreeze ES - Freezing 3**
Product code : VFE3001

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Industrial/Professional use spec : For professional use only
Use of the substance/mixture : VitriFreeze ES™ are a set of media for vitrification of human embryos (zygote till expanded blastocyst stage).

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

FertiPro NV
Industriepark Noord 32
8730 Beernem
Belgium
info@fertipro.com

1.4. Emergency telephone number

Emergency number : +3250791805

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

EUH phrases : EUH210 - Safety data sheet available on request

2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII.

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Ultrapure water	(CAS No) 7732-18-5 (EC no) 231-791-2	50 - 70	Not classified
Sucrose	(CAS No) 57-50-1 (EC no) 200-334-9	20 - 30	Not classified
Dimethyl sulphoxide (DMSO)	(CAS No) 67-68-5	17 - 20	Not classified
Ethylene Glycol	(CAS No) 107-21-1 (EC no) 203-473-3 (EC index no) 603-027-00-1	17 - 20	Acute Tox. 4 (Oral), H302
Human Serum Albumin	(CAS No) 70024-90-7	1 - 5	Not classified
Ficoll	(CAS No) 26873-85-8	0,1 - 1	Not classified
Sodium Chloride	(CAS No) 7647-14-5 (EC no) 231-598-3	0,1 - 1	Not classified
Disodium Phosphate Dihydrate	(CAS No) 10028-24-7	< 0,1	Not classified
D-(+)-Glucose	(CAS No) 50-99-7 (EC no) 200-075-1	< 0,1	Not classified

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Potassium Chloride	(CAS No) 7447-40-7 (EC no) 231-211-8	< 0,1	Not classified
Potassium Dihydrogen Phosphate	(CAS No) 7778-77-0 (EC no) 231-913-4	< 0,1	Not classified
Calcium Chloride Dihydrate	(CAS No) 10035-04-8	< 0,1	Eye Irrit. 2, H319
Magnesium Chloride Hexahydrate	(CAS No) 7791-18-6	< 0,1	Not classified
Sodium Pyruvate	(CAS No) 113-24-6 (EC no) 204-024-4	< 0,1	Not classified

Comments : The media do not contain any raw materials of direct animal-origin or materials that have been produced using animal-origin components. Components have not been in contact with material of animal origin during processing and therefore pose no TSE risk.

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Assure fresh air breathing. Allow the victim to rest.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container closed when not in use. Keep only in the original container away from direct (sun)light. Do not freeze. Do not use after expiry date. After opening the container, the product can be safely used up to 7 days when sterile conditions are maintained and the products are stored at 2-8°C. Cannot be re-sterilized after opening.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct (sun)light.

Storage temperature : 2 - 8 °C

7.3. Specific end use(s)

See instructions for use delivered with the device.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety. Avoid all unnecessary exposure.

8.2.2. Personal protection equipment

Personal protective equipment:

Wear fire/flammable resistant/retardant clothing.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye/Face protection : Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

8.2.2.2. Skin protection

Skin protection: : Complete suit protecting against chemicals, flame retardant antistatic protective clothing. The type of protection must be selected according to the concentration and volume of the dangerous substance at the specific workplace.

Hand protection : Wear protective gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to meet the specifications of EU-directive 89/686/EEC and the standard EN374 derived from it.

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

8.2.2.3. Respiratory protection

Respiratory protection : Wear appropriate mask. Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Other information:

Do not eat, drink or smoke during use. Do not pipette liquid using a mouth pipette.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Clear, colorless liquid.
Odour	: odourless.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Non flammable.
Explosive limits	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: 7.2 – 7.4
Viscosity, kinematic	: Not available
Solubility	: highly soluble in water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: Not available
Relative density	: Not available
Relative vapour density at 20 °C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable after transport (max. 5 days) at elevated temperature ($\leq 37^{\circ}\text{C}$). Stable for 12 months from date of manufacture.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct (sun)light. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. Fume.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral, dermal, inhalation)	: Not classified. Extensive data from Mouse Embryo Assays have demonstrated that the medium is not toxic.
Skin corrosion/irritation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Serious eye damage/irritation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Respiratory or skin sensitisation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Specific target organ toxicity (repeated exposure)	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified
Additional information	: Based on available data, the classification criteria are not met

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

No additional information available

11.2.2. Other information

Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met
Other information	: Human Albumin Solution: The plasma which is the source of the human serum albumin is tested for antibodies to HIV and HCV and non-reactive for HbsAg, HBV RNA, HCV RNA, HIV-1 RNA and syphilis. The albumin agrees with all the requirements set forth by the European and United States health authority regarding safety. Route of exposure: Under normal conditions there is no exposure to the product.

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

12.2. Persistence and degradability

VitriFreeze ES - Freezing 3	
Persistence and degradability	Not established.
Sodium Chloride (7647-14-5)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

VitriFreeze ES - Freezing 3	
Bioaccumulative potential	Not established.
Sodium Chloride (7647-14-5)	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Avoid release to the environment

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) / (IMDG) / (IATA) / (ADN) / (RID) : Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR) / (IMDG) / (IATA) / (ADN) / (RID) : Not applicable

14.3. Transport hazard class(es)

Transport hazard class(es) (ADR) / (IMDG) / (IATA) / (ADN) / (RID) : Not applicable

14.4. Packing group

Packing group (ADR) / (IMDG) / (IATA) / (ADN) / (RID) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available

14.6. Special precautions for user

Overland transport / Transport by sea / Air transport / Inland waterway transport / Rail transport

No data available

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no REACH Annex XIV substances

Contains no substance on the REACH candidate list

Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Contains no substance subject to Regulation (EC) 273/2004 of the European Parliament and of the Council of 11 February 2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances.

15.1.2. National regulations

France

Occupational diseases

Code	Description
RG 67	Nasal septum lesions caused by potassium chloride dust in potash mines and their dependencies

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

RG 84	Conditions caused by liquid organic solvents for professional use: saturated or unsaturated aliphatic or cyclic liquid hydrocarbons and mixtures thereof; liquid halogenated hydrocarbons; nitrated derivatives of aliphatic hydrocarbons; alcohols; glycols, glycol ethers; ketones; aldehydes; aliphatic and cyclic ethers, including tetrahydrofuran; esters; dimethylformamide and dimethylacetamine; acetonitrile and propionitrile; pyridine; dimethylsulfone and dimethylsulfoxide
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Germany

Water hazard class (WGK) : WGK 2, Significantly hazardous to water (Classification according to AwSV, Annex 1).
Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

SZW list of carcinogenic substances : None of the components are listed
SZW list of mutagenic substances : None of the components are listed
NON-limitative list of substances toxic for reproduction - Breast-feeding : None of the components are listed
NON-limitative list of substances toxic for reproduction - Fertility : None of the components are listed
NON-limitative list of substances toxic for reproduction - Development : None of the components are listed

Switzerland

Storage class (LK) : LK 10/12 - Liquids

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of H- and EUH-phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H302	Harmful if swallowed
H319	Causes serious eye irritation

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
 Product name : **VitriThaw ES - Thawing 1**
 Product code : VTE1005

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Industrial/Professional use spec : For professional use only
 Use of the substance/mixture : VitriThaw ES™ are a set of media for thawing of human embryos (zygote till expanded blastocyst stage).

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

FertiPro NV
 Industriepark Noord 32
 8730 Beernem
 Belgium
 info@fertipro.com

1.4. Emergency telephone number

Emergency number : +3250791805

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII.

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Ultrapure Water	(CAS No) 7732-18-5 (EC no) 231-791-2	70 - 90	Not classified
Sucrose	(CAS No) 57-50-1 (EC no) 200-334-9	20 - 30	Not classified
Human Serum Albumin	(CAS No) 70024-90-7	1 - 5	Not classified
Sodium Chloride	(CAS No) 7647-14-5 (EC no) 231-598-3	0,1 - 1	Not classified
Disodium Phosphate Dihydrate	(CAS No) 10028-24-7	< 0,1	Not classified
D-(+)-Glucose	(CAS No) 50-99-7 (EC no) 200-075-1	< 0,1	Not classified
Potassium Chloride	(CAS No) 7447-40-7 (EC no) 231-211-8	< 0,1	Not classified

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Potassium Dihydrogen Phosphate	(CAS No) 7778-77-0 (EC no) 231-913-4	< 0,1	Not classified
Calcium Chloride Dihydrate	(CAS No) 10035-04-8	< 0,1	Eye Irrit. 2, H319
Magnesium Chloride Hexahydrate	(CAS No) 7791-18-6	< 0,1	Not classified
Sodium Pyruvate	(CAS No) 113-24-6 (EC no) 204-024-4	< 0,1	Not classified

Full text of H-phrases: see section 16

Comments : The media do not contain any raw materials of direct animal-origin or materials that have been produced using animal-origin components. Components have not been in contact with material of animal origin during processing and therefore pose no TSE risk.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Assure fresh air breathing. Allow the victim to rest.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep container closed when not in use. Keep only in the original container away from direct (sun)light. Do not freeze. Do not use after expiry date. After opening the container, the product can be safely used up to 7 days when sterile conditions are maintained and the products are stored at 2-8°C. Cannot be re-sterilized after opening.
- Incompatible products : Strong bases. Strong acids.
- Incompatible materials : Sources of ignition. Direct (sun)light.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety. Avoid all unnecessary exposure.

8.2.2. Personal protection equipment

Personal protective equipment:

Wear fire/flammable resistant/retardant clothing.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye/Face protection : Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

8.2.2.2. Skin protection

Skin protection: : Complete suit protecting against chemicals, flame retardant antistatic protective clothing. The type of protection must be selected according to the concentration and volume of the dangerous substance at the specific workplace.

Hand protection : Wear protective gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to meet the specifications of EU-directive 89/686/EEC and the standard EN374 derived from it.

8.2.2.3. Respiratory protection

Respiratory protection : Wear appropriate mask. Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

8.2.2.4. Thermal hazards

No additional information available

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

8.2.3. Environmental exposure controls

Other information:

Do not eat, drink or smoke during use. Do not pipette liquid using a mouth pipette.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Clear, colorless liquid.
Odour	: odourless.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Non flammable.
Explosive limits	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: 7.2 – 7.4
Viscosity, kinematic	: Not available
Solubility	: highly soluble in water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: Not available
Relative density	: Not available
Relative vapour density at 20 °C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable after transport (max. 5 days) at elevated temperature ($\leq 37^{\circ}\text{C}$). Stable for 12 months from date of manufacture.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct (sun)light. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. Fume.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral, dermal, inhalation)	: Not classified. Extensive data from Mouse Embryo Assays have demonstrated that the medium is not toxic.
Skin corrosion/irritation	: Not classified
Additional information	: Based on available data, the classification criteria are not met

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

Serious eye damage/irritation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Respiratory or skin sensitisation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Specific target organ toxicity (repeated exposure)	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified
Additional information	: Based on available data, the classification criteria are not met

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

No additional information available

11.2.2. Other information

Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met
Other information	: Human Albumin Solution: The plasma which is the source of the human serum albumin is tested for antibodies to HIV and HCV and non-reactive for HbsAg, HBV RNA, HCV RNA, HIV-1 RNA and syphilis. The albumin agrees with all the requirements set forth by the European and United States health authority regarding safety. Route of exposure: Under normal conditions there is no exposure to the product.

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

12.2. Persistence and degradability

VitriThaw ES - Thawing 1	
Persistence and degradability	Not established.
Sodium Chloride (7647-14-5)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

VitriThaw ES - Thawing 1	
Bioaccumulative potential	Not established.
Sodium Chloride (7647-14-5)	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Avoid release to the environment

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) / (IMDG) / (IATA) / (ADN) / (RID) : Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR) / (IMDG) / (IATA) / (ADN) / (RID) : Not applicable

14.3. Transport hazard class(es)

Transport hazard class(es) (ADR) / (IMDG) / (IATA) / (ADN) / (RID) : Not applicable

14.4. Packing group

Packing group (ADR) / (IMDG) / (IATA) / (ADN) / (RID) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user

Overland transport / Transport by sea / Air transport / Inland waterway transport / Rail transport

No data available

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions
Contains no REACH Annex XIV substances
Contains no substance on the REACH candidate list
Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.
Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants
Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.
Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.
Contains no substance subject to Regulation (EC) 273/2004 of the European Parliament and of the Council of 11 February 2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances.

15.1.2. National regulations

France

Occupational diseases	
Code	Description
RG 67	Nasal septum lesions caused by potassium chloride dust in potash mines and their dependencies

Germany

Water hazard class (WGK) : WGK 2, Significantly hazardous to water (Classification according to AwSV, Annex 1).
Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

SZW list of carcinogenic substances : None of the components are listed

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

SZW list of mutagenic substances : None of the components are listed
NON-limitative list of substances toxic for reproduction - Breast-feeding : None of the components are listed
NON-limitative list of substances toxic for reproduction - Fertility : None of the components are listed
NON-limitative list of substances toxic for reproduction - Development : None of the components are listed

Switzerland

Storage class (LK) : LK 10/12 - Liquids

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of H- and EUH-phrases:

Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H319	Causes serious eye irritation

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
 Product name : **VitriThaw ES - Thawing 2**
 Product code : VTE2001

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Industrial/Professional use spec : For professional use only
 Use of the substance/mixture : VitriThaw ES™ are a set of media for thawing of human embryos (zygote till expanded blastocyst stage).

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

FertiPro NV
 Industriepark Noord 32
 8730 Beernem
 Belgium
 info@fertipro.com

1.4. Emergency telephone number

Emergency number : +3250791805

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII.

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Ultrapure water	(CAS No) 7732-18-5 (EC no) 231-791-2	70 - 90	Not classified
Sucrose	(CAS No) 57-50-1 (EC no) 200-334-9	10 - 20	Not classified
Human Serum Albumin	(CAS No) 70024-90-7	1 - 5	Not classified
Sodium Chloride	(CAS No) 7647-14-5 (EC no) 231-598-3	0,1 - 1	Not classified
Disodium Phosphate Dihydrate	(CAS No) 10028-24-7	0,1 - 1	Not classified
D-(+)-Glucose	(CAS No) 50-99-7 (EC no) 200-075-1	< 0,1	Not classified
Potassium Chloride	(CAS No) 7447-40-7 (EC no) 231-211-8	< 0,1	Not classified

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Potassium Dihydrogen Phosphate	(CAS No) 7778-77-0 (EC no) 231-913-4	< 0,1	Not classified
Calcium Chloride Dihydrate	(CAS No) 10035-04-8	< 0,1	Eye Irrit. 2, H319
Magnesium Chloride Hexahydrate	(CAS No) 7791-18-6	< 0,1	Not classified
Sodium Pyruvate	(CAS No) 113-24-6 (EC no) 204-024-4	< 0,1	Not classified

Full text of H-phrases: see section 16

Comments : The media do not contain any raw materials of direct animal-origin or materials that have been produced using animal-origin components. Components have not been in contact with material of animal origin during processing and therefore pose no TSE risk.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Assure fresh air breathing. Allow the victim to rest.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Keep container closed when not in use. Keep only in the original container away from direct (sun)light. Do not freeze. Do not use after expiry date. After opening the container, the product can be safely used up to 7 days when sterile conditions are maintained and the products are stored at 2-8°C. Cannot be re-sterilized after opening.
Incompatible products	: Strong bases. Strong acids.
Incompatible materials	: Sources of ignition. Direct (sun)light.
Storage temperature	: 2 - 8 °C

7.3. Specific end use(s)

See instructions for use delivered with the device.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety. Avoid all unnecessary exposure.

8.2.2. Personal protection equipment

Personal protective equipment:

Wear fire/flammable resistant/retardant clothing.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye/Face protection : Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

8.2.2.2. Skin protection

Skin protection: : Complete suit protecting against chemicals, flame retardant antistatic protective clothing. The type of protection must be selected according to the concentration and volume of the dangerous substance at the specific workplace.

Hand protection : Wear protective gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to meet the specifications of EU-directive 89/686/EEC and the standard EN374 derived from it.

8.2.2.3. Respiratory protection

Respiratory protection : Wear appropriate mask. Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Other information:

Do not eat, drink or smoke during use. Do not pipette liquid using a mouth pipette.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Clear, colorless liquid.
Odour	: odourless.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Non flammable.
Explosive limits	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: 7.2 – 7.4
Viscosity, kinematic	: Not available
Solubility	: highly soluble in water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: Not available
Relative density	: Not available
Relative vapour density at 20 °C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable after transport (max. 5 days) at elevated temperature ($\leq 37^{\circ}\text{C}$). Stable for 12 months from date of manufacture.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct (sun)light. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. Fume.

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral, dermal, inhalation)	: Not classified. Extensive data from Mouse Embryo Assays have demonstrated that the medium is not toxic.
Skin corrosion/irritation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Serious eye damage/irritation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Respiratory or skin sensitisation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Specific target organ toxicity (repeated exposure)	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified
Additional information	: Based on available data, the classification criteria are not met

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

No additional information available

11.2.2. Other information

Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met
Other information	: Human Albumin Solution: The plasma which is the source of the human serum albumin is tested for antibodies to HIV and HCV and non-reactive for HbsAg, HBV RNA, HCV RNA, HIV-1 RNA and syphilis. The albumin agrees with all the requirements set forth by the European and United States health authority regarding safety. Route of exposure: Under normal conditions there is no exposure to the product.

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

12.2. Persistence and degradability

VitriThaw ES - Thawing 2	
Persistence and degradability	Not established.
Sodium Chloride (7647-14-5)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

VitriThaw ES - Thawing 2	
Bioaccumulative potential	Not established.
Sodium Chloride (7647-14-5)	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Avoid release to the environment

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) / (IMDG) / (IATA) / (ADN) / (RID) : Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR) / (IMDG) / (IATA) / (ADN) / (RID) : Not applicable

14.3. Transport hazard class(es)

Transport hazard class(es) (ADR) / (IMDG) / (IATA) / (ADN) / (RID) : Not applicable

14.4. Packing group

Packing group (ADR) / (IMDG) / (IATA) / (ADN) / (RID) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available

14.6. Special precautions for user

Overland transport / Transport by sea / Air transport / Inland waterway transport / Rail transport

No data available

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no REACH Annex XIV substances

Contains no substance on the REACH candidate list

Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Contains no substance subject to Regulation (EC) 273/2004 of the European Parliament and of the Council of 11 February 2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances.

15.1.2. National regulations

France

Occupational diseases	
Code	Description
RG 67	Nasal septum lesions caused by potassium chloride dust in potash mines and their dependencies

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

Germany

Water hazard class (WGK) : WGK 2, Significantly hazardous to water (Classification according to AwSV, Annex 1).
Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

SZW list of carcinogenic substances : None of the components are listed
SZW list of mutagenic substances : None of the components are listed
NON-limitative list of substances toxic for reproduction - Breast-feeding : None of the components are listed
NON-limitative list of substances toxic for reproduction - Fertility : None of the components are listed
NON-limitative list of substances toxic for reproduction - Development : None of the components are listed

Switzerland

Storage class (LK) : LK 10/12 - Liquids

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of H- and EUH-phrases:

Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H319	Causes serious eye irritation

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
 Product name : **VitriThaw ES - Thawing 3**
 Product code : VTE3001

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Industrial/Professional use spec : For professional use only
 Use of the substance/mixture : VitriThaw ES™ are a set of media for thawing of human embryos (zygote till expanded blastocyst stage).

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

FertiPro NV
 Industriepark Noord 32
 8730 Beernem
 Belgium
 info@fertipro.com

1.4. Emergency telephone number

Emergency number : +3250791805

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII.

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Ultrapure Water	(CAS No) 7732-18-5 (EC no) 231-791-2	90 - 99	Not classified
Sucrose	(CAS No) 57-50-1 (EC no) 200-334-9	5 - 10	Not classified
Human Serum Albumin	(CAS No) 70024-90-7	1 - 5	Not classified
Sodium Chloride	(CAS No) 7647-14-5 (EC no) 231-598-3	0,1 - 1	Not classified
Disodium Phosphate Dihydrate	(CAS No) 10028-24-7	0,1 - 1	Not classified
D-(+)-Glucose	(CAS No) 50-99-7 (EC no) 200-075-1	< 0,1	Not classified
Potassium Chloride	(CAS No) 7447-40-7 (EC no) 231-211-8	< 0,1	Not classified

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Potassium Dihydrogen Phosphate	(CAS No) 7778-77-0 (EC no) 231-913-4	< 0,1	Not classified
Calcium Chloride Dihydrate	(CAS No) 10035-04-8	< 0,1	Eye Irrit. 2, H319
Magnesium Chloride Hexahydrate	(CAS No) 7791-18-6	< 0,1	Not classified
Sodium Pyruvate	(CAS No) 113-24-6 (EC no) 204-024-4	< 0,1	Not classified

Full text of H-phrases: see section 16

Comments : The media do not contain any raw materials of direct animal-origin or materials that have been produced using animal-origin components. Components have not been in contact with material of animal origin during processing and therefore pose no TSE risk.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Assure fresh air breathing. Allow the victim to rest.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Keep container closed when not in use. Keep only in the original container away from direct (sun)light. Do not freeze. Do not use after expiry date. After opening the container, the product can be safely used up to 7 days when sterile conditions are maintained and the products are stored at 2-8°C. Cannot be re-sterilized after opening.
Incompatible products	: Strong bases. Strong acids.
Incompatible materials	: Sources of ignition. Direct (sun)light.
Storage temperature	: 2 - 8 °C

7.3. Specific end use(s)

See instructions for use delivered with the device.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety. Avoid all unnecessary exposure.

8.2.2. Personal protection equipment

Personal protective equipment:

Wear fire/flammable resistant/retardant clothing.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye/Face protection : Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

8.2.2.2. Skin protection

Skin protection: : Complete suit protecting against chemicals, flame retardant antistatic protective clothing. The type of protection must be selected according to the concentration and volume of the dangerous substance at the specific workplace.

Hand protection : Wear protective gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to meet the specifications of EU-directive 89/686/EEC and the standard EN374 derived from it.

8.2.2.3. Respiratory protection

Respiratory protection : Wear appropriate mask. Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Other information:

Do not eat, drink or smoke during use. Do not pipette liquid using a mouth pipette.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Clear, colorless liquid.
Odour	: odourless.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Non flammable.
Explosive limits	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: 7.2 – 7.4
Viscosity, kinematic	: Not available
Solubility	: highly soluble in water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: Not available
Relative density	: Not available
Relative vapour density at 20 °C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable after transport (max. 5 days) at elevated temperature ($\leq 37^{\circ}\text{C}$). Stable for 12 months from date of manufacture.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct (sun)light. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. Fume.

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral, dermal, inhalation)	: Not classified. Extensive data from Mouse Embryo Assays have demonstrated that the medium is not toxic.
Skin corrosion/irritation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Serious eye damage/irritation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Respiratory or skin sensitisation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Specific target organ toxicity (repeated exposure)	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified
Additional information	: Based on available data, the classification criteria are not met

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

No additional information available

11.2.2. Other information

Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met
Other information	: Human Albumin Solution: The plasma which is the source of the human serum albumin is tested for antibodies to HIV and HCV and non-reactive for HbsAg, HBV RNA, HCV RNA, HIV-1 RNA and syphilis. The albumin agrees with all the requirements set forth by the European and United States health authority regarding safety. Route of exposure: Under normal conditions there is no exposure to the product.

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

12.2. Persistence and degradability

VitriThaw ES - Thawing 3	
Persistence and degradability	Not established.
Sodium Chloride (7647-14-5)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

VitriThaw ES - Thawing 3	
Bioaccumulative potential	Not established.
Sodium Chloride (7647-14-5)	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Avoid release to the environment

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) / (IMDG) / (IATA) / (ADN) / (RID) : Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR) / (IMDG) / (IATA) / (ADN) / (RID) : Not applicable

14.3. Transport hazard class(es)

Transport hazard class(es) (ADR) / (IMDG) / (IATA) / (ADN) / (RID) : Not applicable

14.4. Packing group

Packing group (ADR) / (IMDG) / (IATA) / (ADN) / (RID) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user

Overland transport / Transport by sea / Air transport / Inland waterway transport / Rail transport

No data available

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions
Contains no REACH Annex XIV substances
Contains no substance on the REACH candidate list
Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.
Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants
Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.
Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.
Contains no substance subject to Regulation (EC) 273/2004 of the European Parliament and of the Council of 11 February 2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances.

15.1.2. National regulations

France

Occupational diseases	
Code	Description
RG 67	Nasal septum lesions caused by potassium chloride dust in potash mines and their dependencies

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

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Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

Germany

Water hazard class (WGK) : WGK 2, Significantly hazardous to water (Classification according to AwSV, Annex 1).
Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

SZW list of carcinogenic substances : None of the components are listed
SZW list of mutagenic substances : None of the components are listed
NON-limitative list of substances toxic for reproduction - Breast-feeding : None of the components are listed
NON-limitative list of substances toxic for reproduction - Fertility : None of the components are listed
NON-limitative list of substances toxic for reproduction - Development : None of the components are listed

Switzerland

Storage class (LK) : LK 10/12 - Liquids

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of H- and EUH-phrases:

Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H319	Causes serious eye irritation

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
 Product name : **VitriThaw ES - Thawing 4**
 Product code : VTE4001

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Industrial/Professional use spec : For professional use only
 Use of the substance/mixture : VitriThaw ES™ are a set of media for thawing of human embryos (zygote till expanded blastocyst stage).

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

FertiPro NV
 Industriepark Noord 32
 8730 Beernem
 Belgium
 info@fertipro.com

1.4. Emergency telephone number

Emergency number : +3250791805

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII.

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Ultrapure Water	(CAS No) 7732-18-5 (EC no) 231-791-2	90 - 99	Not classified
Sucrose	(CAS No) 57-50-1 (EC no) 200-334-9	1 - 5	Not classified
Human Serum Albumin	(CAS No) 70024-90-7	1 - 5	Not classified
Sodium Chloride	(CAS No) 7647-14-5 (EC no) 231-598-3	0,1 - 1	Not classified
Disodium Phosphate Dihydrate	(CAS No) 10028-24-7	0,1 - 1	Not classified
D-(+)-Glucose	(CAS No) 50-99-7 (EC no) 200-075-1	< 0,1	Not classified
Potassium Chloride	(CAS No) 7447-40-7 (EC no) 231-211-8	< 0,1	Not classified

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Potassium Dihydrogen Phosphate	(CAS No) 7778-77-0 (EC no) 231-913-4	< 0,1	Not classified
Calcium Chloride Dihydrate	(CAS No) 10035-04-8	< 0,1	Eye Irrit. 2, H319
Magnesium Chloride Hexahydrate	(CAS No) 7791-18-6	< 0,1	Not classified
Sodium Pyruvate	(CAS No) 113-24-6 (EC no) 204-024-4	< 0,1	Not classified

Full text of H-phrases: see section 16

Comments : The media do not contain any raw materials of direct animal-origin or materials that have been produced using animal-origin components. Components have not been in contact with material of animal origin during processing and therefore pose no TSE risk.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Assure fresh air breathing. Allow the victim to rest.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Keep container closed when not in use. Keep only in the original container away from direct (sun)light. Do not freeze. Do not use after expiry date. After opening the container, the product can be safely used up to 7 days when sterile conditions are maintained and the products are stored at 2-8°C. Cannot be re-sterilized after opening.
Incompatible products	: Strong bases. Strong acids.
Incompatible materials	: Sources of ignition. Direct (sun)light.
Storage temperature	: 2 - 8 °C

7.3. Specific end use(s)

See instructions for use delivered with the device.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety. Avoid all unnecessary exposure.

8.2.2. Personal protection equipment

Personal protective equipment:

Wear fire/flammable resistant/retardant clothing.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye/Face protection : Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

8.2.2.2. Skin protection

Skin protection: : Complete suit protecting against chemicals, flame retardant antistatic protective clothing. The type of protection must be selected according to the concentration and volume of the dangerous substance at the specific workplace.

Hand protection : Wear protective gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to meet the specifications of EU-directive 89/686/EEC and the standard EN374 derived from it.

8.2.2.3. Respiratory protection

Respiratory protection : Wear appropriate mask. Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Other information:

Do not eat, drink or smoke during use. Do not pipette liquid using a mouth pipette.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Clear, colorless liquid.
Odour	: odourless.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Non flammable.
Explosive limits	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: 7.2 – 7.4
Viscosity, kinematic	: Not available
Solubility	: highly soluble in water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: Not available
Relative density	: Not available
Relative vapour density at 20 °C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable after transport (max. 5 days) at elevated temperature ($\leq 37^{\circ}\text{C}$). Stable for 12 months from date of manufacture.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct (sun)light. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. Fume.

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral, dermal, inhalation)	: Not classified. Extensive data from Mouse Embryo Assays have demonstrated that the medium is not toxic.
Skin corrosion/irritation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Serious eye damage/irritation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Respiratory or skin sensitisation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Specific target organ toxicity (repeated exposure)	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified
Additional information	: Based on available data, the classification criteria are not met

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

No additional information available

11.2.2. Other information

Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met
Other information	: Human Albumin Solution: The plasma which is the source of the human serum albumin is tested for antibodies to HIV and HCV and non-reactive for HbsAg, HBV RNA, HCV RNA, HIV-1 RNA and syphilis. The albumin agrees with all the requirements set forth by the European and United States health authority regarding safety. Route of exposure: Under normal conditions there is no exposure to the product.

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

12.2. Persistence and degradability

VitriThaw ES - Thawing 4	
Persistence and degradability	Not established.
Sodium Chloride (7647-14-5)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

VitriThaw ES - Thawing 4	
Bioaccumulative potential	Not established.
Sodium Chloride (7647-14-5)	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Avoid release to the environment

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) / (IMDG) / (IATA) / (ADN) / (RID) : Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR) / (IMDG) / (IATA) / (ADN) / (RID) : Not applicable

14.3. Transport hazard class(es)

Transport hazard class(es) (ADR) / (IMDG) / (IATA) / (ADN) / (RID) : Not applicable

14.4. Packing group

Packing group (ADR) / (IMDG) / (IATA) / (ADN) / (RID) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user

Overland transport / Transport by sea / Air transport / Inland waterway transport / Rail transport

No data available

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions
Contains no REACH Annex XIV substances
Contains no substance on the REACH candidate list
Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.
Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants
Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.
Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.
Contains no substance subject to Regulation (EC) 273/2004 of the European Parliament and of the Council of 11 February 2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances.

15.1.2. National regulations

France

Occupational diseases	
Code	Description
RG 67	Nasal septum lesions caused by potassium chloride dust in potash mines and their dependencies

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

Germany

Water hazard class (WGK) : WGK 2, Significantly hazardous to water (Classification according to AwSV, Annex 1).
Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

SZW list of carcinogenic substances : None of the components are listed
SZW list of mutagenic substances : None of the components are listed
NON-limitative list of substances toxic for reproduction - Breast-feeding : None of the components are listed
NON-limitative list of substances toxic for reproduction - Fertility : None of the components are listed
NON-limitative list of substances toxic for reproduction - Development : None of the components are listed

Switzerland

Storage class (LK) : LK 10/12 - Liquids

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of H- and EUH-phrases:

Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H319	Causes serious eye irritation

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
 Product name : **VitriThaw ES – Thawing 5**
 Product code : VTE5001

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Industrial/Professional use spec : For professional use only
 Use of the substance/mixture : VitriThaw ES™ are a set of media for thawing of human embryos (zygote till expanded blastocyst stage).

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

FertiPro NV
 Industriepark Noord 32
 8730 Beernem
 Belgium
 info@fertipro.com

1.4. Emergency telephone number

Emergency number : +3250791805

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII.

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Ultrapure Water	(CAS No) 7732-18-5 (EC no) 231-791-2	90 - 99	Not classified
Human Serum Albumin	(CAS No) 70024-90-7	1 - 5	Not classified
Sodium Chloride	(CAS No) 7647-14-5 (EC no) 231-598-3	0,1 - 1	Not classified
Disodium Phosphate Dihydrate	(CAS No) 10028-24-7	0,1 - 1	Not classified
D-(+)-Glucose	(CAS No) 50-99-7 (EC no) 200-075-1	0,1 - 1	Not classified
Potassium Chloride	(CAS No) 7447-40-7 (EC no) 231-211-8	< 0,1	Not classified
Potassium Dihydrogen Phosphate	(CAS No) 7778-77-0 (EC no) 231-913-4	< 0,1	Not classified
Calcium Chloride Dihydrate	(CAS No) 10035-04-8	< 0,1	Eye Irrit. 2, H319

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Magnesium Chloride Hexahydrate	(CAS No) 7791-18-6	< 0,1	Not classified
Sodium Pyruvate	(CAS No) 113-24-6 (EC no) 204-024-4	< 0,1	Not classified

Full text of H-phrases: see section 16

Comments : The media do not contain any raw materials of direct animal-origin or materials that have been produced using animal-origin components. Components have not been in contact with material of animal origin during processing and therefore pose no TSE risk.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Assure fresh air breathing. Allow the victim to rest.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Keep container closed when not in use. Keep only in the original container away from direct (sun)light. Do not freeze. Do not use after expiry date. After opening the container, the product can be safely used up to 7 days when sterile conditions are maintained and the products are stored at 2-8°C. Cannot be re-sterilized after opening.
Incompatible products	: Strong bases. Strong acids.
Incompatible materials	: Sources of ignition. Direct (sun)light.
Storage temperature	: 2 - 8 °C

7.3. Specific end use(s)

See instructions for use delivered with the device.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety. Avoid all unnecessary exposure.

8.2.2. Personal protection equipment

Personal protective equipment:

Wear fire/flammable resistant/retardant clothing.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye/Face protection : Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

8.2.2.2. Skin protection

Skin protection: : Complete suit protecting against chemicals, flame retardant antistatic protective clothing. The type of protection must be selected according to the concentration and volume of the dangerous substance at the specific workplace.

Hand protection : Wear protective gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to meet the specifications of EU-directive 89/686/EEC and the standard EN374 derived from it.

8.2.2.3. Respiratory protection

Respiratory protection : Wear appropriate mask. Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Other information:

Do not eat, drink or smoke during use. Do not pipette liquid using a mouth pipette.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Clear, colorless liquid.
Odour	: odourless.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Non flammable.
Explosive limits	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: 7.2 – 7.4
Viscosity, kinematic	: Not available
Solubility	: highly soluble in water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: Not available
Relative density	: Not available
Relative vapour density at 20 °C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable after transport (max. 5 days) at elevated temperature ($\leq 37^{\circ}\text{C}$). Stable for 12 months from date of manufacture.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct (sun)light. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. Fume.

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral, dermal, inhalation)	: Not classified. Extensive data from Mouse Embryo Assays have demonstrated that the medium is not toxic.
Skin corrosion/irritation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Serious eye damage/irritation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Respiratory or skin sensitisation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Specific target organ toxicity (repeated exposure)	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified
Additional information	: Based on available data, the classification criteria are not met

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

No additional information available

11.2.2. Other information

Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met
Other information	: Human Albumin Solution: The plasma which is the source of the human serum albumin is tested for antibodies to HIV and HCV and non-reactive for HbsAg, HBV RNA, HCV RNA, HIV-1 RNA and syphilis. The albumin agrees with all the requirements set forth by the European and United States health authority regarding safety. Route of exposure: Under normal conditions there is no exposure to the product.

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

12.2. Persistence and degradability

VitriThaw ES – Thawing 5	
Persistence and degradability	Not established.
Sodium Chloride (7647-14-5)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

VitriThaw ES – Thawing 5	
Bioaccumulative potential	Not established.
Sodium Chloride (7647-14-5)	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Avoid release to the environment

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) / (IMDG) / (IATA) / (ADN) / (RID) : Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR) / (IMDG) / (IATA) / (ADN) / (RID) : Not applicable

14.3. Transport hazard class(es)

Transport hazard class(es) (ADR) / (IMDG) / (IATA) / (ADN) / (RID) : Not applicable

14.4. Packing group

Packing group (ADR) / (IMDG) / (IATA) / (ADN) / (RID) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user

Overland transport / Transport by sea / Air transport / Inland waterway transport / Rail transport

No data available

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions
Contains no REACH Annex XIV substances
Contains no substance on the REACH candidate list
Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.
Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants
Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.
Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.
Contains no substance subject to Regulation (EC) 273/2004 of the European Parliament and of the Council of 11 February 2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances.

15.1.2. National regulations

France

Occupational diseases	
Code	Description
RG 67	Nasal septum lesions caused by potassium chloride dust in potash mines and their dependencies

VitriFreeze ES / VitriThaw ES

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Data Sheet VitriFreeze ES Pre-incubation: 1>7 // VitriFreeze ES Freezing 1: 8>14 // VitriFreeze ES Freezing 2: 15>21 // VitriFreeze ES Freezing 3: 22>28 // VitriThaw ES Thawing 1: page 29>35 // VitriThaw ES Thawing 2: page 36>42 // VitriThaw ES Thawing 3: page 43>49 // VitriThaw ES Thawing 4: page 50>56 // VitriThaw ES Thawing 5: page 57>63

Germany

Water hazard class (WGK) : WGK 2, Significantly hazardous to water (Classification according to AwSV, Annex 1).
Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

SZW list of carcinogenic substances : None of the components are listed
SZW list of mutagenic substances : None of the components are listed
NON-limitative list of substances toxic for reproduction - Breast-feeding : None of the components are listed
NON-limitative list of substances toxic for reproduction - Fertility : None of the components are listed
NON-limitative list of substances toxic for reproduction - Development : None of the components are listed

Switzerland

Storage class (LK) : LK 10/12 - Liquids

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of H- and EUH-phrases:

Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H319	Causes serious eye irritation

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product