

# MATERIAL SAFETY DATASHEET

## 1. Product and company identification

<b>Product name:</b>	BeadReady™
<b>Chemical Family:</b>	Polysaccharide and inorganic salts
<b>General use:</b>	A kit containing polysaccharide-based gel solution, gelation buffer, and dissolution buffer for cell encapsulation/immobilization and hypothermic preservation in sealed tubes
<b>Manufacturer:</b>	Atelerix Ltd. The Biosphere Draymans Way Newcastle Helix Newcastle upon Tyne NE4 5BX UK <a href="http://www.atelerix.co.uk">www.atelerix.co.uk</a>
<b>Emergency Contact Number:</b>	+44 (0) 1915806181

## 2. Hazards identification

**Potential health effects:** No significant health effects expected

## 3. Composition / information on ingredients

Chemical Name	CAS No.	EC No.	EC Class	Concentration
Sodium Alginate	9005-38-3	None	Not classified as hazardous	< 10 %
Sodium Citrate Dihydrate	6132-04	None	Not classified as hazardous	< 10 %
Calcium Chloride	10043-52-4	233-140-8	Eye Irritation (Category 2), H319	< 10 %
Phosphate Buffered Saline	None	None	Not classified as hazardous	n/a
Hank's Buffered Saline Solution	None	None	Not classified as hazardous	n/a

## 4. First aid measures

**Eyes:** Irrigate cautiously with clean water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing. Get medical attention if irritation occurs and persists.

<b>Skin:</b>	Wash off with soap and water. Get medical attention if irritation occurs and persists.
<b>Ingestion:</b>	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
<b>Inhalation:</b>	If breathed in, move person into fresh air. If not breathing, give artificial respiration. If any breathing difficulty or discomfort occurs and persists, obtain medical attention.
<b>Note to Medical Doctor:</b>	This product has low oral and inhalation toxicity. It is not a skin sensitizer and is non-irritating to the skin. Gelation buffer included in the kit contains 1.1% (wt/vol) calcium chloride that may cause serious eye irritation.

## 5. Fire fighting measures

<b>Extinguishing media:</b>	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
<b>Fire / explosion hazards:</b>	None.
<b>Fire fighting procedures:</b>	None.
<b>Flammable limits</b>	No data available.

## 6. Accidental release measures

<b>If material is released or spilled:</b>	Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.
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## 7. Handling and storage

<b>Precautions for safe handling:</b>	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
<b>Conditions for safe storage:</b>	Store in a dry place at 2-8°C. Do not freeze

## 8. Exposure controls / personal protection

<b>Control parameters:</b>	Contains no substances with occupational exposure limit values.
<b>Appropriate controls:</b>	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of each workday.
<b>Personal protective equipment:</b>	<b>Eye/face protection:</b> Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as EN 166 (EU) or NIOSH (US).  <b>Skin protection:</b> Handle with gloves. Gloves must be inspected prior to use. Use proper glove

removal technique to avoid touching the glove's outer surface and contact with this product. Dispose of contaminated gloves in accordance with applicable laws and good laboratory practices. Wash and dry hands. Selected gloves must satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

**Body protection:**

The product should be handled in accordance to good laboratory practices with the wearing of a suitable (e.g. Howie-style) laboratory coat.

**Respiratory protection:**

Avoid aerosol generation and handle in a Class II Biological Safety Cabinet.

**Control of environmental exposure:**

Do not let product enter drains.

## 9. Physical and chemical properties

<b>Appearance:</b>	Form: liquid Colour: colourless
<b>Odour:</b>	Odourless
<b>pH:</b>	6.0-8.0 at 25°C
<b>Melting point/freezing point:</b>	Approximately 0°C
<b>Initial boiling point:</b>	Approximately 100°C
<b>Flash point:</b>	No data available
<b>Evaporation rate:</b>	No data available
<b>Flammability:</b>	No data available
<b>Vapour pressure:</b>	No data available
<b>Vapour density:</b>	No data available
<b>Water solubility:</b>	n/a

## 10. Stability and reactivity

<b>Stability:</b>	Stable under recommended storage conditions.
<b>Conditions to avoid:</b>	Freezing.
<b>Hazardous decomposition products:</b>	Hazardous decomposition products formed under fire conditions: hydrogen chloride gas, calcium oxide, carbon oxides, sodium oxides.

## 11. Toxicological information

<b>Acute toxicity:</b>	No data available.
<b>Skin corrosion/irritation</b>	None.
<b>Serious eye damage/irritation</b>	Gelation buffer included in the kit contains 1.1% (wt/vol) calcium chloride that may cause serious eye irritation
<b>Respiratory/skin sensitization:</b>	None.
<b>Dermal LD50:</b>	No data available.
<b>Oral LD50:</b>	No data available.
<b>Germ cell mutagenicity:</b>	No data available.
<b>Carcinogenicity:</b>	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
<b>Reproductive toxicity:</b>	No data available.
<b>Specific target organ toxicity:</b>	No data available for either single or repeated exposure.

## 12. Ecological information

<b>Environmental data:</b>	Sodium alginate is biodegradable and is not expected to have any significant environmental effect. As a precaution, do not let components enter drains.
<b>Ecotoxicological data:</b>	No data available.

## 13. Disposal consideration

<b>Disposal method:</b>	Handle as a hazardous material. Handle as a biohazardous material when mixed with cells. Always dispose of waste in accordance with the Directive on waste 2008/98/EC as well as all other local and national regulations. Do not mix with other waste.
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## 14. Transport information

<b>IMDG:</b>	Not regulated
<b>ADR/RID:</b>	Not regulated
<b>IATA:</b>	Not dangerous goods unless the product contains cells. If the product contains cells, it must be packaged in accordance of IATA P450 guidelines.
<b>Environmental hazards (DOT):</b>	Marine pollutant: no

## 15. Regulatory information

**Safety, health and environmental regulations:** This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006

## 16. Other information

The above information is believed to be correct but does not claim to be fully comprehensive. It should therefore be used only as a guide and users must exercise their own risk assessment and independent judgment for the particular applications the product is used for. It does not denote any guarantee of the properties of the product. Atelerix Ltd. shall not be held liable for damages resulting from handling or from contact with this product, or any reliance on the information provided herein.