

## Safety Data Sheet

# Chitoink

---

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name:** Chitoink  
**Product number:** IKE10000  
**Brand:** CELLINK  
**General use:** Bioink for 3D bioprinting, cell encapsulation and delivery, tissue engineering, regenerative medicine, biomedical devices and drug delivery. For research use only, not for human use.

**Company address:**

CELLINK LLC  
100 Franklin St.  
Boston, MA 02110  
USA

CELLINK AB  
Arvid Wallgrens backe 20  
SE41346 Göteborg  
Sweden

---

1

**Emergency telephone number:**

US:  
+1(833) 235-5465

EU:  
+46 31-128-700

support@cellink.com  
www.cellink.com

### 2. HAZARDS IDENTIFICATION

**Potential health effects:** Not a hazardous substance or mixture.

---

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS#	EC No.	EC Class	Composition
Chitosan	9012-76-4	None	Not classified as hazardous	
D-Mannitol	69-65-8	200-711-8	Not classified as hazardous	
Glucomannan	37220-17-0	None	Not classified as hazardous	

Glycerol phosphate disodium salt hydrate	55073-41-1	215-613-0	Not classified as hazardous	
Acetic acid	64-19-7	200-580-7	H226*, H314*	<1%

\*GHS for >99% acetic acid.

---

#### 4. FIRST AID MEASURES

**In case of eye contact:** Flush eyes with water as a precaution.

**In case of skin contact:** Wash with soap and plenty of water.

**If swallowed:** Never give anything by mouth to an unconscious person. Rinse mouth with water.

**If inhaled:** If breathed in, move person into fresh air. If any breathing difficulty or discomfort occurs and persists, obtain medical attention.

**Notes to medical doctor:** This product has low oral and inhalation toxicity. It is not skin sensitizer and is non-irritating to the skin and eyes.

---

#### 5. FIRE FIGHTING MEASURES

**Extinguishing media:** Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

**Fire/explosion hazards:** No data available.

**Firefighting procedures:** Wear self-contained breathing apparatus for firefighting if necessary.

**Flammable limits:** No data available.

---

#### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment, and emergency procedures:** Avoid dust formation. Avoid breathing vapors, mist or gas.

**Environmental precautions:** Do not let product enter drains.

**Methods and materials for containment and cleaning up:** Sweep up and shovel. Keep in suitable, closed containers for disposal.

---

#### 7. HANDLING AND STORAGE

**Precautions for safe handling:** Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

**Conditions for safe storage:** Store at 4 – 8°C, keep container tightly closed in a dry place.

---

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure limits:** N/A

### Personal protection equipment

**Eyes and face:** Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

**Respiratory:** Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or P1 (EN143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Protective clothing:** Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific workplace. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Gloves:** Handle with 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.

3

---

### Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Breakthrough time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

### Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Breakthrough time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Data source: KCL GmbH, D-36124 Eichenzell; phone: +49 (0)6659 87300; e-mail: sales@kcl.de; test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

---

## 9. PHYSICAL AND CHEMICAL PROPERTIES.

<b>Appearance:</b>	Translucent gel
<b>Upper/lower flammability:</b>	No data available
<b>Odor:</b>	Odorless
<b>Vapor pressure:</b>	No data available
<b>Odor threshold:</b>	No data available
<b>Vapor density:</b>	No data available
<b>pH:</b>	6.5-7.4
<b>Relative density:</b>	No data available
<b>Melting point:</b>	No data available
<b>Solubility in water:</b>	Water dispersion and solution
<b>Boiling point:</b>	No data available
<b>Flash point:</b>	No data available
<b>Evaporation rate:</b>	No data available
<b>Flammability:</b>	No data available
<b>Partition coefficient:</b>	No data available
<b>Autoignition temp:</b>	No data available
<b>Decomposition temp:</b>	No data available

## 10. STABILITY AND REACTIVITY

- Conditions to avoid:** Freezing
- Reactivity:** No data available
- Stability:** Stable under recommended storage conditions.
- Possibility of hazardous reactions:** No data available.
- Incompatible materials:** Strong oxidizing agents, strong acids, strong bases
- Hazardous decomposition products:** No data available
- 

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity:

Oral LD50: No data available.

Inhalation: No data available.

Dermal: No data available.

**Skin corrosion/irritation:** No data available.

**Serious eye damage/eye irritation:** No data available.

**Germ cell mutagenicity:** No data available.

### Carcinogenicity:

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as Aldrich - W201502 Page 5 of 6 probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity:** No data available

**Specific target organ toxicity - single exposure:** No data available

**Specific target organ toxicity - repeated exposure:** No data available

**Aspiration hazard:** No data available

**Additional Information:** RTECS: not available.

---

## 12. ECOLOGICAL INFORMATION

**Toxicity:** No data available.

**Persistence and degradability:** No data available.

**Bioaccumulative potential:** No data available.

**Mobility in soil:** No data available.

**Results of PBT and vPvB assessment:** PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

**Other adverse effects:** No data available.

---

## 13. DISPOSAL CONSIDERATIONS

### Waste treatment methods

**Product:** Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging:** Dispose of as unused product.

6

---

---

## 14. TRANSPORT INFORMATION

**U.S. Department of Transportation (DOT):** Not dangerous goods

**International Maritime Dangerous Goods (IMDG):** Not dangerous goods

**ADR – European agreement concerning the international carriage of dangerous goods by road:** Not dangerous goods

**Additional information:** Not regulated.

**Other information:** N/A

---

## 15. REGULATORY INFORMATION

**SARA 302 Components:** No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components:** This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards:** No SARA Hazards

**Massachusetts Right to Know Components:** Acetic acid.

**Pennsylvania Right to Know Components:** Acetic acid.

**New Jersey Right to Know Components:** Acetic acid.

**California Prop. 65 Components:**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

---

## **16. OTHER INFORMATION**

### **HMIS Rating**

Health hazard: 0

Chronic Health Hazard: 0

Flammability: 0

Physical Hazard: 0

### **NFPA Rating**

Health hazard: 0

Fire Hazard: 0

Reactivity Hazard: 0