

Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

- **Product name:** Celluid GM
- **Product number:** CBG-101
- **Company:** Clecell
- **General use/ Recommended use of the chemical and restrictions on use:** For research use only. Not for human use.
- **Company address:** 201~204, 127 Beopwon-ro, Songpa-gu, Seoul
- **Emergency telephone number:** +82 -2-2185-1700

2. HAZARDS IDENTIFICATION

This material is not classified as hazardous under the Article 39 Paragraph 1 of the Industrial Safety and Health Act (ISHA). It is not regulated for the MSDS creation and labeling by the provision of Article 41 Paragraph 1 of the ISHA.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

Synonyms: Gelatin methacrylamide
Gelatin methacrylate
Gelatin methacryloyl
GelMA
Bioink

No components need to be disclosed according to the applicable regulations.

4. FIRST AID MEASURES

- **In case of eye contact:** After eye contact: rinse out with plenty of water. Remove contact lenses.
- **In case of skin contact:** Wash with soap and plenty of water.
- **If swallowed:** After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.
- **If inhaled:** After inhalation: fresh air.
- **Most important acute symptoms/effects:** No data available
- **Notes to medical doctor:** No data available

5. FIREFIGHTING MEASURES

- **Extinguishing media:** Water Foam Carbon dioxide (CO2) Dry powder.
- **Extinguishing media which shall not be used for safety reasons:** For this substance/mixture no limitations of extinguishing agents are given.
- **Specific hazards arising from the chemical:** Not combustible. Ambient fire may liberate hazardous vapours.
- **Special protective actions for fire-fighters:** In the event of fire, wear self-contained breathing apparatus.
- **Further information:** Prevent fire extinguishing water from contaminating surface water or the ground water system.

6. ACCIDENTAL RELEASE MEASURES

- **Personal precautions, protective equipment, and emergency procedures:** Do not breathe vapors, aerosols. Evacuate the danger area, observe emergency procedures, consult an expert.
- **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.
Clean contaminated areas.

7. HANDLING AND STORAGE

- **Precautions for safe handling:** Always wear recommended Personal Protective Equipment. No special handling advices are necessary.
- **Conditions for safe storage:** Tightly closed. Recommended storage temperature -20 or 2~8 °C, Heat-, light-, and moisture-sensitive.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- **Control parameters:** Contains no substances with occupational exposure limit values.
- **Appropriate engineering controls:** No data available
- **Personal protection equipment**
 - Respiratory protection: Not required; except in case of aerosol formation.
 - Hand protection: not required
 - Eye protection: Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses
 - Hygiene measures: Change contaminated clothing. Wash hands after working with substance

9. PHYSICAL AND CHEMICAL PROPERTIES

- **Appearance**
 - Form: liquid
 - Color: light beige
- **Odor:** Odorless
- **Odor threshold:** N/A
- **pH:** 추가예정
- **Melting point:** N/A
- **Initial boiling point:** N/A
- **Flash Point:** N/A
- **Evaporation Rate:** N/A
- **Flammability:** N/A
- **Lower explosion limit:** N/A
- **Upper explosion limit:** N/A
- **Vapor pressure:** N/A
- **Water solubility:** soluble
- **Relative vapor density:** N/A
- **Density:** N/A

- **Partition coefficient: noctanol/water:** N/A
- **Autoignition temperature:** N/A
- **Decomposition temperature:** N/A
- **Viscosity, dynamic:** N/A
- **Viscosity, kinematic:** N/A
- **Molecular weight:** N/A

10. STABILITY AND REACTIVITY

- **Chemical stability:** N/A
- **Possibility of hazardous reactions:** N/A/No dangerous reactions known.
- **Conditions to avoid:** N/A
- **Incompatible materials:** Strong oxidizing agents, strong acids and bases.
- **Hazardous decomposition products**
 - Hazardous decomposition products formed under fire conditions: Carbon oxides, Nitrogen oxides (NOx), Oxides of phosphorus, Hydrogen chloride gas, Sodium oxides
 - Other decomposition products - No data available

11. TOXICOLOGICAL INFORMATION

- **Acute toxicity**
 - Oral: N/A
 - Inhalation: N/A
 - Dermal: N/A
- **Skin corrosion/irritation:** N/A
- **Serious eye damage/eye irritation:** N/A
- **Germ cell mutagenicity:** N/A
- **Carcinogenicity:** N/A
- **Reproductive toxicity:** N/A
- **Specific target organ toxicity - single exposure:** N/A
- **Specific target organ toxicity - repeated exposure:** N/A
- **Aspiration hazard:** N/A
- **Signs and Symptoms of Exposure:** To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
- **Numerical measures of toxicity:** N/A
- **Additional Information:** Hazardous properties cannot be excluded but are unlikely when the product is handled appropriately.

12. ECOLOGICAL INFORMATION

- **Toxicity:** N/A
- **Persistence and degradability:** N/A
- **Bioaccumulative potential:** N/A
- **Mobility in soil:** N/A
- **Other adverse effects:** N/A

13. DISPOSAL CONSIDERATIONS

- **Waste treatment methods:** Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

14. TRANSPORT INFORMATION

- U.S. Department of Transportation (DOT): N/A
- International Maritime Dangerous Goods (IMDG): N/A
- IATA : N/A
 - Proper Shipping Name : No dangerous good in sense of these transport regulations
 - Hazard Class None
 - Subsidiary class None
 - Packing group None
 - UN-No None
 - Environmental hazards None
- Other information: N/A

15. REGULATORY INFORMATION

- **Regulation under the Occupational Safety and Health Act**
 - Harmful Substances Required Permission for Manufacture: N/A
 - Harmful Substances Prohibited from Manufacturing: N/A
 - Harmful Agents to be kept below Occupational Exposure Limits: N/A
 - Controlled Substances Subject to Environment Monitoring: N/A
 - Controlled Substances Subject to Health Examination: N/A
 - Hazardous substances requiring management: N/A
 - Management Materials: N/A
- **Act on the Registration and Evaluation, etc. of Chemical Substances, Chemicals Control Act**
 - Toxic Chemicals: N/A
 - Restricted Chemicals: N/A
 - Prohibited Chemicals: N/A
 - Accident Precaution Chemicals: N/A
- **Dangerous Substances Safety Management Act:** Not Applicable to Dangerous Materials
- **Waste Control Act:** Follow article 13 of the act to dispose the product waste
- **Other regulations:** KECI Number Not in compliance with the inventory

16. OTHER INFORMATION

The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. The information in this SDS does not constitute a warranty, expressed or implied, including any implied warranty of merchantability or fitness for any particular purpose.