

Safety Data Sheet

GelMA Hydrogel

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product name: GelMA (Gelatin Methacrylate)

1.2 Brand: Foldink

1.3 Product Number: #GM240

1.4 General use: For use as bioink in 3D Bioprinting, cell encapsulation and delivery, tissue engineering and regenerative medicine, biomedical devices, drug delivery for research. Not for human use, for research only.

1.5 Company Address:

Foldink Corp.
2601 Preston Rd. Suite 3011.
Frisco, Texas 75034, USA
Tel.: +1 857 302 4934
Email: info@foldink.bio
www.foldink.bio

Foldink LLC
22 Orbeli Brothers Street, 0028,
Yerevan, Republic of Armenia
Tel.: +37441041013
Email: info@foldink.bio
www.foldink.bio

2. HAZARDS IDENTIFICATION

Potential health effects: Not a hazardous substance or mixture.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	EC No.	EC Class
Gelatin Methacrylate	9000-70-8	232-554-6	Not classified as hazardous
Irgacure 2959	106797-53-9	None	Not classified as hazardous
PBS buffer solution	None	None	Not classified as hazardous

4. FIRST AID MEASURES

4.1 In case of eye contact: Flush eyes with water as a precaution. Consult a physician.

4.2 In case of skin contact: Wash with soap and plenty of water. Consult a physician.

4.3 If swallowed: Rinse mouth with plenty of water. Consult a physician.

4.4 If inhaled: Move the person to fresh air. If any breathing difficulty or discomfort occurs and persists, obtain medical attention.

4.5 Notes to a medical doctor: Show this safety data sheet to the doctor in attendance. This product has low oral and inhalation toxicity. It is not a skin sensitizer and is non irritating to the skin and eyes.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media: No data available.

5.2 Fire/explosion hazards: No data available.

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

5.4 Flammable limits: No data available.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment, and emergency procedures: Avoid dust formation. Avoid breathing vapors, mist or gas. For personal protection, see section 8.

6.2 Environmental precautions: Do not let product enter drains.

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

7. HANDLING AND STORAGE

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

7.2 Conditions for safe storage: Keep the container tightly closed in a dry and well-ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Exposure limits: N/A.

8.2 Personal protection equipment

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

b) Respiratory: Respiratory protection is not required. Where protection from nuisance levels of dust is 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).

c) 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.

d) 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.

9. PHYSICAL AND CHEMICAL PROPERTIES.

Appearance:	Translucent Amber Color Gel
Upper/lower flammability:	No data available
Odor:	Odorless
Odor threshold:	Not applicable
Vapor pressure:	No data available
Vapor density:	No data available
pH:	6.5-7.4
Relative density:	1 g/mL
Melting point:	Not applicable
Boiling point:	Around 100°C
Flash point:	No data available
Evaporation rate:	No data available
Flammability:	No data available
Partition coefficient:	No data available
Autoignition temp:	No data available
Decomposition temp:	No data available
Viscosity:	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.

Hazardous decomposition products:

No data available. In the event of fire, see section 5.

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: No data available.

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.

12. ECOLOGICAL INFORMATION

12.1 Toxicity: No data available.

12.2 Persistence and degradability: No data available.

12.3 Bioaccumulative potential: No data available.

12.4 Mobility in soil: No data available.

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

12.6 Other adverse effects: No data available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

Product: Dispose according to applicable local, state, and federal regulations. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging: Dispose of as unused product.

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 regulated.

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: No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right to Know Components: Gelatin

New Jersey Right to Know components: Gelatin

California Prop. 65 components: This product does not contain any chemicals known to the 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