

SAFETY DATA SHEET:

Stemfactor™ Hepatocyte Growth Factor, Human Recombinant (rhHGF)



1. IDENTIFICATION

1.1. Product Name	Stemfactor™ Hepatocyte Growth Factor, Human Recombinant
1.2. Catalog Number	03-0019, 03-0019-250
1.3. Uses and restrictions	For research use only. Not for use in therapeutic or diagnostic applications
1.4. Manufacturer/Supplier	REPROCELL, Inc. 9000 Virginia Manor Road, Suite 207 Beltsville, MD 20705 USA
1.5. In Case of Emergency	<ul style="list-style-type: none">For medical emergencies, contact your local emergency center.For transportation emergencies, contact your local transportation authorities.For other non-medical or environmental emergencies please call +1-617-245-0030, 8:00 am-4:00 pm EST, Monday – Friday.

2. HAZARDS IDENTIFICATION

2.1. GHS Classification according to Annex II	Not a hazardous substance or mixture
2.2. Signal Word	Not applicable
2.3. Symbol	Not applicable
2.4. Hazard Statement(s)	Not applicable
2.5. Precautionary Statement(s)	Not applicable
2.6. Hazards not otherwise classified (HNOC) or not covered by GHS	None

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Chemical Name	3.2 Synonyms	3.3 Chemical Formula	3.4 Molecular Weight	3.5 CAS Number
Hepatocyte Growth Factor, Recombinant Human	rhHGF	NA	84.3 kDa	NA
Citrate buffer, pH 6.0		Na ₃ C ₆ H ₅ O ₇	258	6132-04-3
Sodium chloride		NaCl	58.44	7647-14-5
Polyoxyethylene 20 sorbitan monooleate	Polysorbate 80 Tween 80	NA	NA	9005-65-6



4. FIRST AID MEASURES

4.1 First Aid Instructions

- **General Advice:** Move out of exposure area. Wash immediately with soap and copious water. In case of respirable dust or fumes, use self-contained breathing apparatus and dust impervious protective clothing. Use Personal Protective Equipment. Consult a physician if symptoms evident.
- **Eyes:** Check for and remove contact lenses immediately and flush thoroughly with water for at least 15 minutes, separating the eyelids with sterile fingers. Call a physician if symptoms persist.
- **Skin:** Immediately flush skin with copious amounts of water. Use soap to help ensure removal. Remove contaminated clothing and shoes and wash before use. Contact a physician if irritation persists.
- **Ingestion:** If swallowed, wash mouth out with water provided person is conscious. Do not induce vomiting without medical advice. Loosen tight clothing. Contact a physician if symptoms persist.
- **Inhalation:** If inhaled, remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Consult a physician if symptoms persist.
- **Puncture Wounds:** Wash thoroughly with soap and water. Allow the wound to bleed freely. Contact a physician.

4.2 Most important Symptoms/Effects, acute and immediate

To the best of our knowledge, the health and toxicological properties of this material have not been thoroughly investigated.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

5. FIRE FIGHTING MEASURES

5.1. Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Specific hazards arising from the chemical

Toxic, irritating dust or smoke may be emitted.

5.3 Special protective equipment and precautions for firefighters

Wear self-contained breathing apparatus and full turnout gear for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment, and emergency procedures

Use personal protective equipment (see section 8). Avoid direct contact with skin or eyes and prevent inhalation of dust. Ensure adequate ventilation. Remove ignition sources.

6.2 Environmental precautions

Prevent spills from entering sewers or low areas.



6.2 Methods and materials for containment and clean up.

Do not touch spilled material without suitable protection (See section 8). Take up spilled material with ashes or other absorbents. After material is completely picked up, wash the spill site with soap and water and ventilate the area. Put all wastes in a plastic bag for disposal and seal it tightly. Remove, clean, or dispose of contaminated clothing.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

- Avoid inhalation, contact with eyes, skin, and clothing.
- Wear gloves when handling product.
- Store and use in a well-ventilated area.
- For other precautions see section 2.5.

7.2. Conditions for safe storage, including any incompatibilities

Store at -80 °C, protected from light. Keep container tightly closed.

Incompatibilities: Oxidizers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

No known occupational exposure limits values.

8.2 Appropriate engineering controls

Use exhaust ventilation to keep airborne concentrations below exposure limits. Use only with adequate ventilation. Mechanical ventilation recommended.

8.3 Protection measures and Personal Protective Equipment

Handle in accordance with good industrial hygiene and safety practices. Wash thoroughly after handling.

- **Respiratory Protection:** If vapor concentrations exceed regulatory guidelines, use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Respiratory protection not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks.
- **Eye Protection:** Chemical safety goggles.
- **Skin Protection:** Protective gloves and lab coat.

9. PHYSICAL/CHEMICAL PROPERTIES

9.1 Appearance:

Frozen liquid

9.2 Odor:

No data available.

9.3 Odor threshold

No data available.

9.4 pH

6.0.

9.5 Melting point/freezing point

No data available.

9.6 Initial boiling point and boiling range

No data available.

9.7 Flashpoint

No data available.

9.8 Evaporation rate

No data available.



9.9 Flammability (solid, gas)	No data available.
9.10 Upper/lower flammability or explosive limit	No data available.
9.11 Vapor pressure	No data available.
9.12 Vapor density	No data available.
9.13 Relative density	No data available.
9.14 Solubility	Water.
9.15: Partition coefficient, n-octanol/water	No data available.
9.16 Autoignition temperature	No data available.
9.17 Decomposition temperature	No data available.
9.18 Viscosity	No data available.
9.19 Explosive properties	No data available.
9.20 Oxidizing properties	No data available.

10. STABILITY/REACTIVITY

10.1 Reactivity	No data available.
10.2 Chemical stability	Stable under recommended conditions.
10.3 Possibility of hazardous reactions	No data available.
10.4 Conditions to avoid	Sunlight, heat.
10.5 Incompatible materials	Oxidizers.
10.6 Hazardous decomposition products	Carbon monoxide, nitrogen oxides, sulfur oxides, phosphorous oxides may be formed.

11. TOXICOLOGICAL INFORMATION

11.1 Toxicological effects:	<ul style="list-style-type: none">• Acute Toxicity: No data available.• Skin corrosion/irritation: No data available.• Serious eye damage/irritation: No data available.• Respiratory or skin sensitization: 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.
11.2 Symptoms related to the physical, chemical, and toxicological characteristics	No data available.
11.3 Effects of short-term exposure	No data available.
11.4 Effects of long-term exposure	No data available.
11.5 Numerical measures of toxicity	No data available.
11.6 Other information	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	No data available.
12.6 Other adverse effects	No data available.

13. DISPOSAL CONSIDERATIONS

13.1 Disposal method	Unused product and waste must be disposed of in accordance with federal and local environmental control regulations.
13.2 Personal safety	Refer to Section 8.

14. TRANSPORT INFORMATION

This product is considered non-hazardous for transport

15. REGULATORY INFORMATION

U.S. Federal Regulations	
<ul style="list-style-type: none"> • SARA 313 components 	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels.
<ul style="list-style-type: none"> • SARA 302 components 	Does not contain any components subject to reporting.
<ul style="list-style-type: none"> • SARA 311/312 Hazards 	Nonhazardous.
<ul style="list-style-type: none"> • Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see CFR 61) 	Does not contain any components subject to reporting.
U.S. State Regulations	
<ul style="list-style-type: none"> • California Proposition 65 	Does not contain any components subject to reporting.
<ul style="list-style-type: none"> • Massachusetts Right To Know Components 	Does not contain any components subject to reporting.
<ul style="list-style-type: none"> • Pennsylvania Right To Know Components 	Does not contain any components subject to reporting.
<ul style="list-style-type: none"> • New Jersey Right To Know Components 	Does not contain any components subject to reporting.
WHMIS Hazard Class	Not controlled under WHMIS (Canada).
Regulation (EC) No 1272/2008 (EU-GHS/CLP)	Not hazardous
Directive 67/548/EC & Directive 1999/45/EC	Not hazardous



16. OTHER INFORMATION

Notice

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. REPROCELL, Inc. shall not be held liable for any damage resulting from handling or from contact with the product. See REPROCELL, Inc. website for terms and conditions of sale.

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Prepared By

Quality Control

END OF SAFETY DATA SHEET