

Material Safety Data Sheet

1. Product and company identification

a) Product Name (to indicate the same name or code as shown in label): Human Bone Marrow derived Mesenchymal Stem Cell Growth Medium

b) Recommended use of the chemical and restrictions on use

Recommended use	Avoid directed inhalation
Restrictions on use	No information available

c) Manufacturer/Supplier/Distributor Information

- Name: CEFO CO. Ltd.
- Address: 45-13 Ujeongguk-ro, Jongno-gu, Seoul, Korea (110-140)
- Emergency phone number: Tel)+82-723-3450 / Fax)+82-723-3451

For research use only. Not intended for human or animal diagnostic or therapeutic uses.

2. Hazards Identification

a) Hazard. Risk Classification:

The product contains no substances which at their given concentration, are considered to be hazardous to health.

b) Label elements including precautionary statements

- Symbol: Not available
- Signal Word: Not available
- Hazard. Risk Statement: Not available
- Precautionary Statement: Not available

c) Other Hazard. Risk which are not included in the classification criteria (e.g. dust explosion hazard):

Health	No information available
Fire	No information available
Reactive	No information available

3. Composition/Information on ingredients

Hazardous/Non-hazardous Components

The product contains no substances which at their given concentration, are considered to be hazardous to health.

4. First aid measures

a) Eye contact

Rinse thoroughly with plenty of water. If you have any symptoms, follow the doctor's instructions.

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| b) Skin contact | Wash off with plenty of water. If you have any symptoms, follow the doctor's instructions. |
| c) Inhalation | Move to fresh air. If you have any symptoms, follow the doctor's instructions. |
| d) Ingestion | Never give anything by mouth to an unconscious person. If you have any symptoms, follow the doctor's instructions. |
| e) Indication of immediate medical attention and notes for physician | Treat symptomatically. |

5. Fire-Fighting measures

- a) Suitable (and unsuitable) extinguishing media: Dry chemical
- b) Specific hazards arising from the chemical (e.g. nature of any hazardous combustion products):
Substance is nonflammable.
- c) Special protective equipment and precautions for fire-fighters: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

6. Accidental release measures

- a) Personal precautions, protective equipment and emergency procedures: Use personal protective equipment.
- b) Environmental precautions and protective procedures: Prevent further leakage or spillage if safe to do so.
See Section 12 for additional information
- c) Methods and materials for containment and cleaning up: Soak up physically with inert absorbent material.

7. Handling and storage

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| a) Precautions for safe handling | No special handling advice required. Always use personal protective equipment. |
| b) Conditions for safe storage (including any incompatibilities) | 2-8°C, protection from light |

8. Exposure controls & personal protection

- a) Control parameters (e.g. occupational exposure limit values, biological limit values):
Prevent product from entering drains.
- b) Appropriate engineering controls: Ensure adequate ventilation, especially in confined areas.
- c) Personal protective equipment
Personal Protective Equipment requirements are dependent on the user institution's risk assessment and are specific to the risk assessment for each laboratory where this material may be used.
 - Respiratory protection** In case of insufficient ventilation wear suitable respiratory equipment.
 - Eye protection** Safety glasses with side-shields.
 - Hand protection** Protective gloves.
 - Skin and body protection** Lightweight protective clothing.
 - Hygiene measures** Handle in accordance with good industrial hygiene.

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Exposure controls

Prevent product from entering drains.

9. Physical and chemical properties

a) Appearance (physical state, color etc.)	Orange
b) Odour	No data available
c) Odour threshold	No data available
d) pH	7.0 ~ 8.0 under storage condition
e) Melting point/freezing point	No data available
f) Initial boiling point and boiling range	No data available
g) Flash point	No data available
h) Evaporation rate	No data available
i) Flammability (solid, gas)	Liquid
j) Upper/lower flammability or explosive limits	No data available
k) Vapor pressure	No data available
l) Solubility	No data available
m) Vapor density	No data available
n) Relative density	1.00 under storage condition
o) Partition coefficient: n-octanol/water	No data available
p) Auto-ignition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Molecular mass	No data available

10. Stability and reactivity

a) Chemical stability and possibility of hazardous reactions	Stable under normal conditions.
b) Conditions to avoid (e.g. static discharge, shock or vibration, etc)	No risk under normal use conditions.
c) Incompatible materials	No data available
d) Hazardous decomposition products	None under normal use.

11. Toxicological information

- a) Information on the likely routes of exposure
b) Health hazards information

Acute toxic	Non-hazardous
Skin corrosive/irritant	May cause mild skin irritation with susceptible persons.
Serious eye damage/eye irritation	May cause mild eye irritation with susceptible persons.
Respiratory sensitization	May cause mild irritation of respiratory tracts with susceptible persons

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Skin sensitization	None
Carcinogenicity	None
Germ Cell Mutagenicity	None
Reproductive toxicity	None
Specific target organ toxicity (single exposure)	No information available
Specific target organ toxicity (repeated exposure)	No information available
Aspiration hazard	No information available

12. Ecological information

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| a) Aquatic and terrestrial ecotoxicity | No information available. |
| b) Persistence and degradability | Inherently biodegradable. |
| c) Bioaccumulative potential | Does not bio-accumulate. |
| d) Mobility in soil | No information available. |
| e) Other adverse effects | No information available. |

13. Disposal considerations

- a) Disposal method: Dispose according to the related regulations.
- b) Disposal precaution (including the disposal method of contaminated container and packaging): Follow details of related waste management act.

14. Transport information

- a) UN number: Not applicable
- b) UN proper shipping name: Not applicable
- c) Transport hazard class: Not applicable
- d) Packing group (if applicable): Not applicable
- e) Marine pollution (yes/no): Not applicable
- f) Special precaution which a user to be aware of or needs to comply with in connection with transport or conveyance either within or outside their premises: Not applicable

15. Regulatory information

- a) Industrial Safety and Health Act: Not available
 - b) Toxic Chemical Control Act: Not available
 - c) Dangerous Material Safety Control Act: Not available
 - d) Wastes Management Act: Not available
 - e) Other requirements in domestic and other countries: Not available
- U.S. Federal Regulations **SARA 313:** product is not regulated by SARA.
Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see

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40 CFR 61): This product does not contains HAPs.

U.S. State Regulations

California Proposition 65

This product does not contain chemicals listed under Proposition 65

16. Other Information

a) Information source and references:

b) Issuing date: 3 Mar 2014

c) Revision number and date: 01 Feb 2016

d) Others:

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