



MATERIAL SAFETY DATA SHEET

1. Identification of the substance/mixture and of the company/undertaking

Product Information

Product Name: Recombinant Human BMP-4

Product Cat. No.: HST-B4-0010; HST-B4-0100; HST-B4-1000

Company/Undertaking Identification

StemImmune LLC

179 Contractors Street, Livermore, CA 94551, USA

Tel: 650.722.6613

Fax: 650.288.4897

Email: orders@stem-immune.com

www.stem-immune.com

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

2. Composition / Information on Ingredients

Substance / Preparation:	Substance
Ingredient Name:	Human BMP-4
CAS No:	No
SARA 313:	No

We recommend handling all chemicals with caution.

3. Hazards Identification

GHS - Classification

Skin Corrosion/Irritation: Category 2

Serious Eye Damage/Eye Irritation: Category 2

Signal Word: WARNING

Physical Hazards

Not hazardous

Hazard statements

H315: Causes skin irritation

H319: Causes serious eye irritation

Precautionary statements

P264: Wash hands thoroughly after handling

P305 + P351 + P338: If in eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing



P337 + P313: If eye irritation persists: Get medical advice/attention

P332 + P313: If skin irritation occurs: Get medical advice/attention

For additional information on toxicity, please refer to Section 11.

4. First Aid Measures

General Suggestion: Show the MSDS to physician.

Skin contact: Flush immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing. Call a physician.

Eye contact: Flush immediately with plenty of water for at least 15 minutes. Call a physician.

Ingestion: Rinse mouth immediately with water provided person is conscious. Call a physician.

Inhalation: Move to fresh air. If not breathing, give artificial respiration. Call a physician.

5. Fighting Measures

Suitable extinguishing media: Water spray, Carbon dioxide (CO₂), Foam, Dry chemical powder.

Special protective equipment for firefighters: Wear self-contained breathing apparatus and protective suit.

6. Accidental Release Measures

Personal precautions: Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Use personal protective equipment.

Methods for cleaning up: Soak up with inert absorbent material, deal as waste disposal.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

For additional information, see section 12.

7. Handling and Storage

Handling: Always wear recommended Personal Protective Equipment. Avoid contact with eyes, skin, and clothing. No special handling

Storage: Keep in refrigerator as the condition labelled on the containers. The product remains stable up to 1 year at -20°C from date of receipt. Please avoid freeze-thaw cycles.

8. Exposure Controls/Personal Protection Equipment

Exposure limits: None

Engineering Controls: Mechanical exhaust required.

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. Respirators used are approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Respiratory: In case of insufficient ventilation wear suitable respiratory equipment.

Hand protection Impervious gloves.

Eye protection Safety glasses with side-shields.

Skin and body protection Lightweight protective clothing.

Hygiene measures Handle in accordance with good industrial hygiene and safety practice.



Stemimmune LLC

Environmental exposure controls

Prevent product from entering drains. Do not allow material to contaminate ground water system.

9. Physical and Chemical Properties

Form: Lyophilized powder.

pH: No information available.

Appearance: No information available.

Odor: No information available.

Boiling point/Range: No data available.

Melting point/Range: No data available.

Flash point: No data available.

Autoignition temperature: No data available.

Oxidizing properties: No information available.

Water solubility: Soluble

10. Stability and Reactivity

Stability: Stable under normal conditions.

Materials to avoid: No information available.

Hazardous decomposition products: No information available.

polymerization: None under normal processing.

11. Toxicological Information

Acute toxicity

No toxicology information is available

Principle Routes of Exposure/Potential Health effects

Eyes: Irritating to eyes.

Skin: Irritating to skin.

Inhalation: Irritating to respiratory system.

Ingestion: May be harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Carcinogenic effects: none

Mutagenic effects: none

Reproductive toxicity: none

Sensitization: none

Target Organ Effects: None under normal use conditions

12. Ecological Information

Ecotoxicity effects: No information available.

Mobility: No information available.

Biodegradation: No information available.



Stemimmune LLC

Bioaccumulation: No information available.

13. Disposal Considerations

Dispose of in accordance with local environmental control regulations.

14. Transport Information

DOT

Proper Shipping Name: None

Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

IATA

Non-Hazardous for Air Transport: Non-hazardous for air transport

15. Regulatory Information

United States Regulatory information

SARA Listed: No

Canada Regulatory Information

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: No

NDSL: No

16. Other Information

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

The MSDS of StemImmune LLC 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. StemImmune LLC shall not be held liable for any damage resulting from the handling or from contact with the above product.