



## 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

4777 Bennett Drive, Suite F, Livermore, CA 94551, USA

Tel: 650.722.6613

Fax: 650.288.4897

Email: [orders@stem-immune.com](mailto:orders@stem-immune.com)

[www.stem-immune.com](http://www.stem-immune.com)

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

### 2. Composition / Information on Ingredients

<b>Substance / Preparation:</b>	Substance
<b>Ingredient Name:</b>	Human BMP-4
<b>CAS No:</b>	No
<b>SARA 313:</b>	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 (CO<sub>2</sub>), 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.