

MATERIAL SAFETY DATA SHEET

PRODUCT Recombinant Human BMP-4

MSDS No. 25-AF-120-05ET ANSI/ENGLISH

1.0 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Recombinant Human BMP-4 expressed in *E.coli*
Catalog # : AF-120-05ET

MANUFACTURER/SUPPLIER:

PeproTech Inc.
Princeton Business Park
5 Crescent Ave., P.O. Box 275
Rocky Hill, NJ 08553
Phone: 800-436-9910

EMERGENCY HEALTH INFORMATION:
 1 (800) 424-8802 NATIONAL RESPONSE
 CENTER

OTHER PRODUCT SAFETY INFORMATION:

This product has not been registered with
 CHEMTREC (USA)

2.0 COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Product Name	CAS	SARA 313
Recombinant human BMP-4	None	No

(See Section 8.0, "Exposure Controls/Personal Protection", for exposure guidelines)

3.0 HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS:

EYE CONTACT: May cause eye irritation.

SKIN CONTACT: May cause skin irritation.

INHALATION: No recognized inhalation hazard.

INGESTION: No recognized ingestion hazard.

HMIS CODE (Health: 0) (Flammability: 0) (Reactivity: 0)

NFPA CODE (Health: 0) (Flammability: 0) (Reactivity: 0)

4.0 FIRST AID MEASURES

EYE: Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

SKIN: Immediately flush with plenty of water.

INHALATION: If inhaled remove to fresh air. If breathing becomes difficult call a physician.
INGESTION: If swallowed, drink plenty of water. Get immediate medical attention.

5.0 FIRE FIGHTING MEASURES

FLASHPOINT:

UEL: None established.

LEL: None established.

AUTOIGNITION TEMPERATURE: None established.

FLAMMABILITY CLASSIFICATION: Nonflammable material.

EXTINGUISHING MEDIA: Not applicable - nonflammable material.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None.

FIRE-FIGHTING EQUIPMENT: Not applicable - nonflammable material.

PRECAUTIONS: Not applicable - nonflammable material.

HAZARDOUS COMBUSTION PRODUCTS: Non-determined.

6.0 ACCIDENTAL RELEASE MEASURES

Use eye protection, gloves, and apron. Implement appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of dust.

Clean up: Sweep up, place in bag and hold for disposal. Ventilate area and wash site after material is picked up.

7.0 HANDLING AND STORAGE

HANDLING: User Exposure: avoid inhalation. Avoid contact with eyes, skin, and clothing.

STORAGE: Suitable: keep tightly closed. Store at -20°C.

See product data sheet for more information on handling and storage.

8.0 EXPOSURE CONTROLS / PERSONAL PROTECTION

EYE: Do not get in eyes.

SKIN: Wear clothing and gloves that cannot be penetrated by chemicals or oil.

INHALATION: Not applicable - not an inhalation hazard.

ENGINEERING CONTROLS: Safety shower and eye bath. Mechanical exhaust required.

EXPOSURE GUIDELINES: Wash thoroughly after handling.

9.0 CHEMICAL AND PHYSICAL PROPERTIES

APPEARANCE AND ODOR: Physical state: solid

pH: N/A

VAPOR PRESSURE: N/A.

VAPOR DENSITY: N/A.

BOILING POINT: N/A.

MELTING POINT: N/A

SOLUBILITY: N/A.

SPECIFIC GRAVITY (WATER=1): N/A

Volatile%: N/A

Water content: N/A

Decomposition Temp.: N/A

VOC content: N/A

Viscosity: N/A

N/A = not available

10.0 STABILITY AND REACTIVITY

STABILITY: Non-flammable. Non-explosive.

CONDITIONS TO AVOID: Strong oxidizing agents.

MATERIALS TO AVOID: Strong oxidizing agents

HAZARDOUS DECOMPOSITION: None determined.

HAZARDOUS POLYMERIZATION: Does not spontaneously polymerize.

11.0 TOXICOLOGICAL INFORMATION

EYE CONTACT: May cause eye irritation.

SKIN CONTACT: May cause skin irritation.

INHALATION: May be harmful if inhaled. May be irritating to mucous membranes.

INGESTION: May be harmful if swallowed.

To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

12.0 ECOLOGICAL INFORMATION

Ecological testing has not been conducted on this product.

13.0 DISPOSAL INFORMATION

Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

14.0 TRANSPORTATION 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 Transports: non-hazardous for air transport.

15.0 REGULATORY INFORMATION

CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR Part 302.4): This product is not reportable under 40 CFR Part 302.4.

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR Part 355): This product is not regulated under Section 302 of SARA and 40 CFR Part 355.

SARA TITLE III SECTIONS 311/312 HAZARDOUS CATEGORIZATION (40 CFR Part 370): This product is not defined as hazardous by OSHA under 29 CFR Part 1910.1200(d).

SARA TITLE III SECTION 313 (40 CFR Part 372): This product does not contain any of the substances on the Toxic Chemicals List in 40 CFR Part 372.

U.S. INVENTORY (TSCA): Not listed on inventory.

OSHA HAZARD COMMUNICATION STANDARD: non hazardous

WHMIS Controlled Product 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.

EC INVENTORY (EINECS/ELINCS): Not determined.

JAPAN INVENTORY (MITI): Not determined.

AUSTRALIA INVENTORY (AICS): Not determined.

KOREA INVENTORY (ECL): Not determined.

CANADA INVENTORY (DSL): Not determined.

PHILIPPINE INVENTORY (PICCS): Not determined.

16.0 OTHER INFORMATION

Disclaimer: For R&D use only.

Version: 2.0

Issued: August 2011

Supersedes: Version 1.0

This Material Safety Data Sheet conforms to the requirements of ANSI Z400.1. This MSDS and the information it contains is offered in good faith as accurate and complete. We have reviewed any information contained in this MSDS which we received from sources outside our company. We believe that information to be correct but cannot guarantee its accuracy or completeness. Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as a permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either express or implied.