MATERIAL SAFETY DATA SHEET

PRODUCT Biotinylated Anti-Rat GM-CSF

MSDS No. 25-500-P225Bt ANSI/ENGLISH

1.0 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Biotinylated Anti-Rat GM-CSF Catalog # : 500-P225Bt

MANUFACTURER/SUPPLIER: PeproTech Inc.	EMERGENCY HEALTH INFORMATION: 1 (800) 424-8802 NATIONAL RESPONSE CENTER
Princeton Business Park 5 Crescent Ave., P.O. Box 275	OTHER PRODUCT SAFETY INFORMATION:
Rocky Hill, NJ 08553 Phone: 800-436-9910	This product has not been registered with CHEMTREC (USA)

2.0 COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Product Name	CAS	SARA 313
Biotinylated Anti-Rat GM-CSF	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.

MSDS No. 25-500-P225Bt Ver 2.0 Issued: 08/30/2011 Page 2 of 4	
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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

	Ver 2.0	Issued: 08/30/2011	Page 3 of 4			
OC content: N/A						
iscosity: N/A						
I/A = not available						
10.0 STABILITY AND REACTIVITY						
TABILITY: Non-flammable. I CONDITIONS TO AVOID: Stro MATERIALS TO AVOID: Stro MAZARDOUS DECOMPOSITI MAZARDOUS POLYMERIZAT	ong oxidizing agents. ng oxidizing agents I ON: None determined.	usly polymerize.				
EYE CONTACT: May cause eye SKIN CONTACT: May cause eye NHALATION: May be harmful NGESTION: May be harmful i	skin irritation. if inhaled. May be irritatir	ng to mucous membranes.				
o the best of our knowledg nvestigated.	e, the chemical, physica	I and toxicological properties	have not been thoroughly			
	12.0 ECOLOGIC	AL INFORMATION				
Ecological testing has not beer	n conducted on this produc	xt.				
	13.0 DISPOSA	L INFORMATION				
Observe all federal, state, and service to dispose of this mate	d local environmental reg	L INFORMATION ulations. Contact a licensed p	professional waste disposa			
	d local environmental reg rial.		professional waste disposa			
DOT Proper shipping Nam Non-hazardous for Ti	d local environmental reg rial. 14.0 TRANSPORTA	ulations. Contact a licensed p				
DOT Proper shipping Nam Non-hazardous for Tr	d local environmental reg rial. 14.0 TRANSPORTA	ulations. Contact a licensed p ATION INFORMATION				
DOT Proper shipping Nam Non-hazardous for Tr	d local environmental reg rial. <u>14.0 TRANSPORTA</u> ne: none ransport: this substance ir Transports: non-hazal	ulations. Contact a licensed p ATION INFORMATION				
DOT Proper shipping Nam Non-hazardous for Tr ATA Non-hazardous for A	d local environmental reg rial. 14.0 TRANSPORTA e: none ransport: this substance ir Transports: non-hazar 15.0 REGULATO	ulations. Contact a licensed p ATION INFORMATION e is considered to be non-haz rdous for air transport.	ardous for transport.			

MSDS No. 25-500-P225Bt	Ver 2.0	Issued: 08/30/2011	Page 4 of 4
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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.