

# Material Safety Data Sheet (MSDS)

Revision Number: <b>1.1</b>		Last updated <b>12-22-2011</b>	
<b>1) Product and Company Identification</b>			
Product Name:	Recombinant Human MMP-1, MMP-9, MMP-12, and Mouse MMP-9 Proteins		
Manufacturer/Supplier:	AnaSpec, Inc. <a href="http://www.anaspec.com">www.anaspec.com</a> 34801 Campus Drive Fremont, CA 94555 Tel: 510-791-9560 Fax: 510-791-9572 Email: <a href="mailto:service@anaspec.com">service@anaspec.com</a>		
Catalog Number	55575-1, 55575-10, 55575-50, 55576-1, 55576-10, 55576-50, 55525-1, 55525-10, 55525-50, 55884-1, 55884-10, 55884-50		
Unit Size	1 µg, 10 µg, and 50 µg		
<b>2) Hazards Identification</b>			
<i>Emergency Overview:</i>			
<i>GHS Hazard Classification:</i>			
<i>GHS Physical Hazards</i>			
	None		
<i>GHS Health and Environmental Hazards</i>			
	H316 Causes Mild Skin Irritation		
	H320 Causes Mild Eye Irritation		
<i>GHS Signal Words</i>			
	Warning		
<i>GHS Hazard Statements:</i>			
	None		
<i>GHS Precautionary Statements:</i>			
	P280 Wear Eye Protection		
<i>HMIS Classification</i>			
	Health hazard: 1		
	Chronic Health Hazard: 0		
	Flammability: 0		
	Physical hazards: 0		
<i>NFPA Rating</i>			
	Health hazard: 1		
	Fire: 0		
	Reactivity Hazard: 0		

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**3) Composition / Information on Ingredients***Ingredients/Components:*

<i>Chemical Name:</i>	<i>CAS Number:</i>
Recombinant Human MMP-1, -12, -9, and Mouse MMP-9 Protein	N/A
300 mM NaCl, 50 mM Tris-HCl, 5 mM CaCl <sub>2</sub> , 20 µM ZnCl <sub>2</sub> , pH 7.5	N/A

**4) First Aid Measures**

<i>Inhalation:</i>	Move subject to fresh air. If breathing is difficult, give oxygen. Give artificial respiration if breathing has stopped. Get prompt medical attention.
<i>Ingestion:</i>	If swallowed, wash out mouth with water if subject is consciousness. Immediately consult a physician. Never give anything by mouth to an unconscious person.
<i>Skin:</i>	Remove contaminated clothing. Wash skin thoroughly with soap and water. Consult a physician.
<i>Eyes:</i>	Immediately flush eyes with large amount of water for at least 15 minutes. Consult a physician.

**5) Fire Fighting Measures**

<i>Extinguishing media:</i>	None
<i>Special firefighting procedures:</i>	None
<i>Unusual fire and explosions hazards:</i>	None

**6) Accidental Release Measures**

<i>Spill response</i>	Absorb with paper towel and dispose into biohazard waste
<i>Containment</i>	None
<i>PPE</i>	Gloves

**7) Handling and Storage**

Store at -80 °C

**8) Exposure Controls / Personal Protection**

<i>Engineering controls</i>	None
<i>PPE</i>	Wear goggles and gloves when handling the product

**9) Physical and Chemical Properties**

<i>Physical State</i>	Liquid
<i>Odor</i>	None
<i>Solubility in Water</i>	Good
<i>Specific Gravity</i>	Not determined
<i>pH</i>	7.5
<i>Boiling Point</i>	Not determined
<i>Melting Point</i>	Not determined
<i>Flash Point</i>	Not determined
<i>Vapor Pressure:</i>	Not determined
<i>Vapor Density:</i>	Not determined

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**10) Stability and Reactivity**

<i>Thermal Decomposition</i>	Stable under recommended storage conditions
<i>Dangerous Products of Decomposition</i>	Unknown
<i>Dangerous Reactions</i>	No dangerous reactions identified

**11) Toxicological Information**

<i>RTECS Number</i>	Not listed
<i>Toxicity</i>	Not identified
<i>Health Hazards</i>	May cause skin irritation. May cause eye irritation. May be harmful if swallowed May be harmful if absorbed through skin.
<i>Potential Hazards</i>	Not identified
<i>Carcinogenicity:</i>	Not listed by NTP, IARC, or OSHA
<i>OSHA Permissible Exposure Limit (PEL) Data</i>	Not identified
<i>ACGIH Threshold Limit Values (TLV)</i>	Not identified

**12) Ecological Information**

Do not allow product to reach ground water, watercourse, or sewage system.

**13) Disposal Considerations**

Consult local, state, or national regulations for proper disposal.

**14) Transport Information**

<i>Hazard Class</i>	This substance is considered to be non-hazardous for transport
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**15) Regulatory Information**

*California Proposition 65: Not Listed*  
*US TSCA (Toxic Substance Control Act): Not Listed*  
*US CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act): Not Listed*  
*US SARA Title III (Superfund Amendments and Reauthorization Act): Not Listed*  
*US Other: Not listed*  
*EC EINECS (European Inventory of Existing Commercial Chemical Substances) Number: Not Listed*  
*EC Risk Statements: Not Determined*  
*Other Country Regulations: Not Determined*

**16) Other Information**

It is not intended for food, drug, household, agricultural or cosmetic use. A technically qualified individual experienced in handling potentially hazardous chemicals must supervise its use. The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. Users should make independent decisions regarding completeness of the information based on all sources available. AnaSpec shall not be held liable for any damage resulting from handling or from contact with the above product.

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