

## MATERIAL SAFETY DATA SHEET RECOMBINANT PROTEINS

Product Identification	Synonyms: None. Molecular Weight: Not applicable to mixtures. Chemical Formula: Not applicable to mixtures. Product Codes: RP series.			
Ingredients	Ingredient	Conc.	Hazardous	
	HIS-TAG Recombinant Proteins			
	Imidazole Tris(hydroxymethyl)aminomethane Sodium Chloride Protein Water	300 mM 20 mM 500 mM >0.40 mg/ml >97%	No No No No	
	GST-TAG Recombinant Proteins			
	Tris(hydroxymethyl)aminomethane Reduced Glutathione Protein Water	50 mM 20 mM >0.40 mg/ml >97%	No No No No	
Physical and Chemical Properties	Appearance: Clear, colorless liquid. Odor: No information found. Solubility: Complete (100%) Specific Gravity: No information found. pH: 7.4 % Volatiles by volume @ 21C (70F): ca. 97 Boiling Point: No information found. Melting Point: No information found. Vapor Density (Air=1): Not applicable. Vapor Pressure (mm Hg): Not applicable. Evaporation Rate (BuAc=1): No information found.			
Fire Fighting Measures	Fire: Not considered to be a fire hazard. Explosion: Not considered to be an explosion hazard. Fire Extinguishing Media: Use any means suitable for extinguishing surrounding fire. Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved self- contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.			
Hazard Identification	Emergency Overview         This product is a potential irritant to eyes, respiratory system, and skin.         This product may also be harmful if ingested. Complete toxicological properties have yet to be determined.         Routes of Exposure         Absorbed through skin, eye contact, inhalation, and ingestion.         Potential Health Effects         Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.         Ingestion: May be harmful if swallowed.         Skin Contact: Causes irritation to skin.         Eye Contact: Causes irritation to eye.         Chronic Exposure: No information found. No information found.         Aggravation of Pre-existing Conditions:         Toxicology         Not Available.			

First Aid Measures	Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. Ingestion: If swallowed, wash out mouth with water provided person is conscious. Get medical		
	attention. Skin Contact: In case of contact with skin, wash the affected area with soap and copious amounts or water. Should irritation occur, contact a physician. Eye Contact: In case of contact with eyes, flush thoroughly with water. Get medical attention		
	immediately. Puncture Wound: Wash thoroughly with soap and water. Allow to bleed freely. Get medical attentio		
Accidental Release Measures	<b>Spill or release:</b> Wear chemical-resistant gloves. Absorb spill and place in closed container for disposal. Ventilate and wash area thoroughly after cleanup is complete.		
Handling and Storage	<ul> <li>Handling: This material is believed to be non-hazardous. Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. May cause allergic reaction in sensitized individuals.</li> <li>Storage: Store at -20C.</li> </ul>		
Stability and Reactivity	<ul> <li>Stability: Stable under ordinary conditions of use and storage.</li> <li>Hazardous Decomposition Products: Nature of decomposition products not known.</li> <li>Hazardous Polymerization: Will not occur.</li> <li>Incompatibilities: Strong oxidizing agents.</li> <li>Conditions to Avoid: Moist, heat, incompatibles.</li> </ul>		
Special Precautions	This compound is sold only for research use by personnel familiar with the toxicology of organic chemicals and who are well trained in good laboratory habits, such as avoiding spills, keeping hands clean at all times and not rubbing eyes with hands while working in the laboratory. This compound is sold only in milligram quantities for use in biochemical research. No other use is intended, and any other use may involve substantial hazards.		
	The above information is believed to be correct but does not purport to be inclusive and shall be used only as a guide for experienced personnel. Abcepta, Inc., shall not be held liable for any damage resulting from the handling of or from contact with the above product. The burden of safe use of this material rests entirely with the user.		

MSDS Proteins (Rev.: 06-25-2008)