

MATERIAL SAFETY DATA SHEET

Section 1 - Product and Company Identification RNASE A SOLUTION, B2007

Product Identification: RNASE A SOLUTION, B2007 Date of MSDS: 09/22/2000 Technical Review Date: 05/19/2001 FSC: NIIN: EMPTY Submitter: N EN Status Code: A MFN: 01 Article: N Kit Part: N

Manufacturer's Information

Manufacturer's Name: Genet Bio Co. Manufacturer's Address1: B-412, Migun Techno World II, Techno2-ro, Yuseong-gu Manufacturer's Address2: Daejeon Manufacturer's Country: South Korea General Information Telephone: 82-0502-523-3484 Emergency Telephone: 82-0502-523-3485 Proprietary: N Reviewed: Y Published: Y

Contractor Information

Contractor's Name: Genet Bio Contractor's Address1: B-412, Migun Techno World II, Techno2-ro, Yuseong-gu Contractor's Address2: Daejeon, South Korea Contractor's Telephone: 82-0502-523-3485

Section 2 - Composition/Information on Ingredients RNASE A SOLUTION, B2007

Ingredient Name: RIBONUCLEASE A Ingredient CAS Number: 9001-99-4 Ingredient CAS Code: ⊤ RTECS Number: RF0760000 RTECS Code: T =WT: =WT Code: =Volume: =Volume Code: >WT: >WT Code: >Volume: >Volume Code: <WT: <WT Code: <Volume: <Volume Code: % Low WT: % Low WT Code: % High WT: % High WT Code: % Low Volume: % Low Volume Code: % High Volume: % High Volume Code: % Text: N/P % Enviromental Weight: Other REC Limits: N/P OSHA PEL: N/P OSHA PEL Code: **OSHA STEL: N/P OSHA STEL Code:** ACGIH TLV: N/P ACGIH TLV Code: GENET Bio



ACGIH STEL: N/P ACGIH STEL Code: EPA Reporting Quantity: DOT Reporting Quantity: Ozone Depleting Chemical: N

Section 3 - Hazards Identification, Including Emergency Overview RNASE A SOLUTION, B2007

Health Hazards Acute & Chronic: ACUTE: IRRITATING TO EYES, RSPIRATORY SYSTEM, AND SKIN. MAY CAUSE SENSITIZATION BY INHALATION AND SKIN CONTACT. Signs & Symptoms of Overexposure: SEE HEALTH HAZARDS. Medical Conditions Aggravated by Exposure: N/P LD50 LC50 Mixture: N/P **Route of Entry Indicators:** Inhalation: YES Skin: YES Ingestion: YES **Carcenogenicity Indicators** NTP: NO IARC: NO OSHA: NO **Carcinogenicity Explanation: N/P**

Section 4 - First Aid Measures RNASE A SOLUTION, B2007

First Aid:

EYE CONT: IMMEDIATELY FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. ASSURE ADEQUATE FLUSHING OF EYES BY SEPARATING THE EYELIDS WITH FINGERS. SKIN CONT: IMMEDIATELY WASH WITH SOAP AND CO PIOUS AMOUNTS OF WATER. INHAL: REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. INGEST: WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS . CALL A PHYSICIAN. REMOVE AND WASH CONTAMINATED CLOTHING PROMPTLY.

Section 5 - Fire Fighting Measures RNASE A SOLUTION, B2007

Fire Fighting Procedures: USE NIOSH APPROVED SCBA AND FULL PROTECTIVE EQUIPMENT (FP N). Unusual Fire or Explosion Hazard: N/P Extinguishing Media: CARBON DIOXIDE, DRY CHEMICAL POWDER, OR APPROPRIATE FOAM. Flash Point: Flash Point Text: N/A Autoignition Temperature: Autoignition Temperature Text: N/A Lower Limit(s): N/A Upper Limit(s): N/A

Section 6 - Accidental Release Measures RNASE A SOLUTION, B2007

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Spill Release Procedures:

PRECAUTIONARY MEASURES: WEAR NIOSH APPRVD SCBA, CHEMICAL SAFETY GOGGS, RUBBER BOOTS, AND HEAVY RUBBER GLOVES. CLEAN-UP PROCEDURE: SWEEP UP, PLACE IN A BAG AND HOLD FOR WASTE DISPOSAL. AVOID DUST. VENT ILATE AREA AND WASH SPILL SITE AFTER MATEIRAL PICKUP IS COMPLETE.

Section 7 - Handling and Storage RNASE A SOLUTION, B2007

 Spill Release Procedures: PRECAUTIONARY MEASURES: WEAR NIOSH APPRVD SCBA, CHEMICAL SAFETY GOGGS, RUBBER BOOTS, AND HEAVY RUBBER GLOVES. CLEAN-UP PROCEDURE: SWEEP UP, PLACE IN A BAG AND HOLD FOR WASTE DISPOSAL. AVOID DUST. VENT ILATE AREA AND WASH SPILL SITE AFTER MATEIRAL PICKUP IS COMPLETE.
Waste Disposal Methods: NO SPECIAL DISPOSAL METHOD REQUIRED. OBSERVE ALL FEDERAL, STATE, AND LOCAL LAWS.

Handling And Storage Precautions: STORE TIGHTLY CLOSED AT -20°C. DO NOT GET IN EYES, ON SKIN, OR ON CLOTHING. DO NOT BREATHE VAPOR. STORE IN A DRY PLACE. Other Precautions: THE PRODUCT SHOULD BE HANDLED WITH THE NORMAL CAUTION ACCORDED CHEMICALS. ADDITIONAL HARMFUL PROPERTIES CANNOT BE RULED OUT.

Section 8 - Exposure Controls & Personal Protection RNASE A SOLUTION, B2007

Repiratory Protection: NIOSH APPROVED RESPIRATOR. Ventilation: MECHANICAL EXHAUST REQUIRED. Protective Gloves: RUBBER GLOVES. Eye Protection: ANSI APPROVED CHEMICAL WORKERS GOGGLES (FP N). Other Protective Equipment: ANSI APPROVED EYE WASH & DELUGE SHOWER (FP N). Work Hygenic Practices: WASH THORUGHLY AFTER HANDLING. Supplemental Health & Safety Information: N/P

Section 9 - Physical & Chemical Properties RNASE A SOLUTION, B2007

HCC: NRC/State License Number: **Net Property Weight for Ammo: Boiling Point: Boiling Point Text: N/A** Melting/Freezing Point: Melting/Freezing Text: N/A **Decomposition Point: Decomposition Text: N/P** Vapor Pressure: N/A Vapor Density: N/P Percent Volatile Organic Content: Specific Gravity: N/A Volatile Organic Content Pounds per Gallon: pH: N/A Volatile Organic Content Grams per Liter: Viscosity: N/A Evaporation Weight and Reference: N/P **Solubility in Water:** SOLUBLE Appearance and Odor: COLORLESS LIQUID. NO ODOR. Percent Volatiles by Volume: N/P Corrosion Rate: N/P



Section 10 - Stability & Reactivity Data RNASE A SOLUTION, B2007

Stability Indicator: YES Materials to Avoid: NONE. Stability Condition to Avoid: N/P Hazardous Decomposition Products: NONE. Hazardous Polymerization Indicator: NO Conditions to Avoid Polymerization: N/P

Section 11 - Toxicological Information RNASE A SOLUTION, B2007

Toxicological Information:

TOXICITY DATA: N/A. ACUTE EFFECTS. INHALATION: MAY BE HARMFUL BY INHALATION. EYE CONT: MAY CAUSE EYE IRRITATION. SKIN CONT: MAY CAUSE SKIN IRRITATION. INGEST: MAY BE HARMFUL IF SWALLOWED. PROLONGED EX POSURE: N/A. CHRONIC EFFECTS: N/A.

Section 12 - Ecological Information RNASE A SOLUTION, B2007

Ecological Information:

NO DATA AVAILABLE. HOWEVER, THE SUBSTANCE IS READILY BIODEGRADABLE.

Section 13 - Disposal Considerations RNASE A SOLUTION, B2007

Waste Disposal Methods:

NO SPECIAL DISPOSAL METHOD REQUIRED. OBSERVE ALL FEDERAL, STATE, AND LOCAL LAWS.

Section 14 - Transport Information RNASE A SOLUTION, B2007

AIR TRANSPORTATION : ALL AIR TRANSPORTATION APPROVED AND THE PLACE SET TO

THE IATA AVIATION ACT IS FOLLOWED.

Section 15 - Regulatory Information RNASE A SOLUTION, B2007

SARA Title III Information: N/P Federal Regulatory Information: LABELING: XN, HARMFUL, R 36/37/38-42/43. State Regulatory Information: N/P

Section 16 - Other Information RNASE A SOLUTION, B2007

Other Information:

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CHEMICAL CHARACTERISTICS: AQUEOUS SOLUTION OF 100 MG/ML RNASE A. SOURCE: BOVINE PANCREAS. CLASSIFICATION OF SUBSTANCE: XN (HARMFUL). **HAZCOM Label Information** Product Identification: RNASE A SOLUTION, RNASE A, 19101 Assigned Individual: N Company Name: Genet Bio Health Emergency Telephone: +82-0502-523-3484 Label Required Indicator: Y Date Label Reviewed: 05/19/2001 Status Code: A Manufacturer's Label Number: Date of Label: Year Procured: N/K **Organization Code:** F **Chronic Hazard Indicator:** Y Eve Protection Indicator: YES Skin Protection Indicator: YES Respiratory Protection Indicator: YES Signal Word: CAUTION Health Hazard: Slight **Contact Hazard:** Slight Fire Hazard: None Reactivity Hazard: None