



**SIGMA-ALDRICH**

## Material Safety Data Sheet

Date Printed: 05/18/2001  
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Version 1.20

### Section 1 - Product and Company Information

**Product Name** RIBONUCLEASE A, CHROMATOGRAPHICALLY PURIFIED, MOLECULAR BIOLOGY REAGENT  
**Product Number** R6513  
**Brand** Sigma Chemical  
**Company** Sigma-Aldrich  
**Street Address** 3050 Spruce Street  
**City, State, Zip, Country** St. Louis, MO 63103 US  
**Technical Phone:** 314 771 5765  
**Fax:** 800 325 5052  
**Emergency Phone:** 414 273 3850 Ext.5996

### Section 2 - Composition/Information on Ingredient

<u>Substance Name</u>	<u>CAS #</u>	<u>SARA 313</u>
RIBONUCLEASE A	9001-99-4	No

**Formula**  
**Synonyms** Alkaline ribonuclease, E.C. 2.7.7.16, E.C. 3.1.4.22, Pancreatic ribonuclease, Ribonuclease, Ribonuclease A, Ribonuclease I, Ribonucleic phosphatase

### Section 3 - Hazards Identification

#### Emergency Overview

Caution: Avoid contact and inhalation.

#### HMS Rating

Health: 0 Flammability: 0 Reactivity: 0

#### NFPA Rating

Health: 0 Flammability: 0 Reactivity: 0

For additional information on toxicity, please refer to Section 11.

### Section 4 - First Aid Measures

#### Oral Exposure

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

#### Inhalation Exposure

If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

#### Dermal Exposure

In case of contact, immediately wash skin with soap and copious amounts of water.

#### Eye Exposure

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

### Section 5 - Fire Fighting Measures

**Autoignition Temp:** N/A

#### Extinguishing Media

##### Suitable

Noncombustible. Use extinguishing media appropriate to surrounding fire conditions.

#### Firefighting

##### Protective Equipment

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

### Section 6 - Accidental Release Measures

#### Procedure(s) of Personal Precaution(s)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

#### Methods for Cleaning Up

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

### Section 7 - Handling and Storage

#### Handling

##### User Exposure

Avoid contact with eyes, skin, and clothing. Avoid inhalation. Avoid prolonged or repeated exposure.

#### Storage

##### Suitable

Keep tightly closed. Store in a cool dry place.

### Section 8 - Exposure Controls / PPE

#### Engineering Controls

Safety shower and eye bath.

#### Personal Protective Equipment

##### Respiratory

NIOSH/MSHA-approved respirator.

##### Hand

Compatible chemical-resistant gloves.

##### Eye

Chemical safety goggles.

#### General Hygiene Measures

Wash thoroughly after handling.

### Section 9 - Physical/Chemical Properties

#### Appearance

##### Color

Very faintly brown-yellow

##### Form

Clear liquid

**Molecular Weight:** N/A

#### Property

##### Value

pH

N/A

BP/BP Range

N/A

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MP/MP Range N/A  
Freezing Point N/A  
Vapor Pressure N/A  
Vapor Density N/A  
Saturated Vapor Conc. N/A  
SG/Density N/A  
Bulk Density N/A  
Odor Threshold N/A  
Volatile% N/A  
VOC Content N/A  
Water Content N/A  
Solvent Content N/A  
Evaporation Rate N/A  
Viscosity N/A  
Partition Coefficient N/A  
Decomposition Temp. N/A  
Flash Point °F N/A  
Flash Point °C N/A  
Explosion Limits N/A  
Autoignition Temp N/A  
Solubility N/A

#### Section 10 - Stability and Reactivity

##### Stability

Stable  
Stable.

##### Materials to Avoid

Strong oxidizing agents.

##### Hazardous Decomposition Products

##### Hazardous Decomposition Products

Nature of decomposition products not known.

##### Hazardous Polymerization

##### Hazardous Polymerization

Will not occur.

#### Section 11 - Toxicological Information

##### Route of Exposure

##### Skin Contact

May cause skin irritation.

##### Skin Absorption

May be harmful if absorbed through the skin.

##### Eye Contact

May cause eye irritation.

##### Inhalation

May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.

##### Ingestion

May be harmful if swallowed.

##### Sensitization

##### Sensitization

Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

##### Signs and Symptoms of Exposure

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

RTECS Number: RF0760000

##### Toxicity Data

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Intraperitoneal - Rat: 392 MG/KG (LD50)

Subcutaneous - Rat: 290 MG/KG (LD50)

Intramuscular - Rat: 310 MG/KG (LD50)

Intraperitoneal - Mouse: 250 MG/KG (LD50)

Subcutaneous - Mouse: 230 MG/KG (LD50)

Intramuscular - Mouse: 355 MG/KG (LD50)

#### Section 12 - Ecological Information

#### Section 13 - Disposal Considerations

##### Appropriate Method of Disposal of Substance or Preparation

Contact a licensed professional waste disposal service to dispose of this material.

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Observe all federal, state, and local environmental regulations.

#### Section 14 - Transport Information

##### DOT

Proper Shipping Name: None

Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

##### IATA

Proper Shipping Name: None

Non-Hazardous for Air Transport: Non-hazardous for air transport.

#### Section 15 - Regulatory Information

##### US Classification and Label Text

##### US Statements

Caution: Avoid contact and inhalation.

##### United States Regulatory Information

Listed: No

TSCA Inventory Item: Yes

#### Section 16 - Other Information

##### Warranty

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2001 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

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