

MATERIAL SAFETY DATA SHEET

**VIVANTIS TECHNOLOGIES SDN BHD
REVONGEN CORPORATION CENTER**

Document No.: MSDSrev05_PC0713

Date prepared: 10th January 2023

Reviewed: 10th January 2023

SECTION 1: CHEMICAL IDENTIFICATION

Catalogue Number: PC0713-250mg; PC0713-500mg; PC0713-1g

Product Name: Ribonuclease A (RNase A)

Intended Use:

For research use only. Not for use in diagnostic procedures.

Company Headquarters:

Vivantis Technologies Sdn Bhd
Revongen Corporation Center
Level 17, Top Glove Tower,
No. 16, Persiaran Setia Dagang,
Setia Alam, Seksyen U13, 40170 Shah Alam,
Selangor Darul Ehsan, Malaysia.

Tel: +6 03 3359 1166

Fax: +6 03 3358 0303

Email: info@vivanttechnologies.com

Website: www.vivanttechnologies.com

Company Manufacturing:

Vivantis Technologies Sdn Bhd
Level 1, Enterprise 2,
Technology Park Malaysia,
Lebuhraya Puchong-Sg. Besi,
57000 Bukit Jalil,
Kuala Lumpur, Malaysia.

Pairing Nature with
Scientific Discoveries

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	EC No.	%
Nuclease, ribo-	9001-99-4	232-646-6	>70

SECTION 3: HAZARDS IDENTIFICATION

GHS Classification

Respiratory Sensitizer – Category 1B
 Skin Sensitizer – Category 1B

GSH Label elements, including precautionary statements



Signal word: Warning

Hazard statements

H317 Causes an allergic skin reaction.
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection
 P302 + P352 If on skin, wash with plenty of soap and water
 P304 + P340 If inhaled, remove victim to fresh air and keep at rest in a position comfortable for breathing
 P305 + P351 + P338: If in eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Pairing Nature with
 Scientific Discoveries

SECTION 4: FIRST-AID MEASURES

In case of eye contact, rinse thoroughly with plenty of water for at least 15 minutes. Consult a physician.

In case of skin contact, wash off immediately with soap and plenty of water removing all contaminated clothes and shoes.

In case of inhalation, move to fresh air. If not breathing, give artificial respiration. If breathing becomes difficult, give oxygen.

In case of ingestion, clean mouth with water and later drink plenty of water. Never give anything by mouth to an unconscious person.

SECTION 5: FIRE FIGHTING MEASURES

Not flammable.

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH and full protective gear.

Hazardous decomposition products formed under fire conditions: No information available

Flash point: Not determined.

Explosion data – sensitivity to mechanical impact: Not sensitive.

Explosion data – sensitivity to static discharge: Not sensitive.

SECTION 6: ACCIDENTAL RELEASE MEASURES

For personal precautions, use personal protective equipment. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.

For environmental precautions, prevent further leakage or spillage if safe to do so.

For cleaning up, spilled material should be carefully wiped up or moistened with water and removed. Pick up and transfer to properly labeled containers. Ventilate area and wash spill site after material pickup is complete.

SECTION 7: HANDLING AND STORAGE

Handle in accordance with good industrial hygiene and safety practice. Protect from light.

Keep containers tightly closed in a dry, cool and well-ventilated place.

Pairing Nature with
Scientific Discoveries

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive pressure-supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
Eye/Face protection	Use safety goggles with side-shields.
Skin and body protection	Wear protective gloves/ clothing.

Use engineering measures such as showers, eyewash stations and ventilation systems.
Handle in accordance with good industrial hygiene and safety practice.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White
Physical state:	Lyophilized powder
Odor:	No information available
Odor threshold:	No information available
Density:	No information available
pH:	No information available (powder form) pH8 (solution form)
Melting point:	No information available
Freezing point:	No information available
Initial Boiling point:	No information available
Boiling point:	No information available
Flash point:	Not applicable
Autoignition temperature:	No data available
Decomposition temperature:	No information available
Upper Flammability limit in air:	No data available
Lower Flammability limit in air:	No data available
Explosive properties:	No information available
Oxidizing properties:	No information available
Solubility:	Water-soluble
Partition coefficient (n-octanol/water):	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Evaporation rate:	No data available
Specific gravity:	No data available
Viscosity:	No information available

Pairing Nature with
Scientific Discoveries

SECTION 10: STABILITY AND REACTIVITY

Stable under recommended storage conditions.

Materials to avoid: None known based on information supplied.
Hazardous decomposition products: Carbon oxides.
Hazardous polymerization: Hazardous polymerization does not occur.
Conditions to avoid: None known based on information supplied.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity

Sensitizer.

Chronic toxicity

No known effect based on information supplied.

Target Organ Effects: Kidneys.

SECTION 12: ECOLOGICAL INFORMATION

The environmental impact of this product has not been fully investigated.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose waste material in accordance with all federal, state and local environmental regulation.
For contaminated packing, dispose as waste material.

SECTION 14: TRANSPORT INFORMATION

DOT

Not regulated.

IATA

Not regulated.

Pairing Nature with
Scientific Discoveries

SECTION 15: REGULATORY INFORMATION

International Inventories

TSCA	Complies
EINECS/ELINCS	Complies
ENCS	Does not comply
IECSC	Complies
KECL	Does not comply
PICCS	Does not comply
AICS	Does not comply

U.S Federal Regulations

SARA 313 Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulation, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any substances regulated as hazardous air pollutant (HAPs) under Section 112 of the Clean Air Act Amendments of 1990.

U.S. State Regulations

California Proposition 65 This product does not contain any Proposition 65 chemicals.

International Regulations

Mexico – Grade No information available.

Pairing Nature with
Scientific Discoveries

WHMIS Hazard Class

D2A Very toxic materials

D2B Toxic materials



SECTION 16: OTHER INFORMATION

The information contained in this MSDS relates only to the material(s) designed and does not relate to use(s) in combination with any other material, process(es) and /or chemical reaction(s). Vivantis Technologies Sdn. Bhd. provides this information in good faith, from sources believed to be accurate; however, Vivantis assumes no liability for its accuracy or completeness, and thus shall not be held liable for any damage resulting from handling or from contact with the above product.

All Vivantis products are supplied for manufacturing, research and laboratory use only. Researchers and laboratory personnel intending to use any of these products for medical investigation on human are solely responsible for such use and for compliance with the pertinent regulations of the United States Food & Drug Administration (US-FDA) and other regulations. We do not assume liability for damages resulting from the handling, use and/or disposal of these products, from their use in violation of patent or other rights or reliance upon this information.

Pairing Nature with
Scientific Discoveries

 info@vivanttechnologies.com

 www.vivanttechnologies.com

  Vivantis Technologies