Safety Data Sheet (SDS)

Revision Number: **3.0**	*Last updated* 14 April 2020

1. Product and Company Identification

Product Name:	**SARS-CoV-2 Spike RBD (receptor binding domain), 319-335** *RVQPTESIVRFPNITNL*
Manufacturer/Supplier:	AnaSpec, Inc. www.anaspec.com 34801 Campus Drive Fremont, CA 94555 Tel: 510-791-9560 Fax: 510-791-9572 Email: service@anaspec.com Kaneka Eurogentec SA, Rue du Bois Saint Jean 5 4102 Seraing Belgium Tel. +32-4-3727400 Fax. +32-4-3727500 E-mail info@eurogentec.com Kaneka Eurogentec Helpdesk Tel. +32-4-3727665
Catalog Number	AS-65603
Relevant identified uses of the substance/preparation and uses advised against	For laboratory use only.
Emergency information	Please contact the regional Eurogentec representation in your country or Kaneka Eurogentec S.A. directly (from 8 am to 6 pm)

2. Hazards Identification

Emergency Overview: We do recommend handling all chemicals with caution. Use proper protective equipment (PPE) when handling chemicals. To our knowledge, the hazards of this material have not been thoroughly investigated.

GHS Hazard Classification:

GHS Physical Hazards: Not a dangerous substance according to the GHS

GHS Health and Environmental Hazards: Not a dangerous substance according to the GHS

GHS Signal Words: None

GHS Hazard Statements: None

GHS Precautionary Statements: None

Potential Health Effects for:
Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.

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

Skin: In case of contact, immediately wash skin with soap and copious amount of water.

Eyes: In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

Chronic Exposures: No information available. We recommend limiting prolonged exposure.

Target Organs: No information available

HMIS Classification

Health hazard: 0
Chronic Health Hazard: 0
Flammability: 0
Physical hazards: 0

NFPA Rating

Health hazard: 0
Fire: 0
Reactivity Hazard: 0

3. Composition

Ingredients/Components:

Chemical Name: **SARS-CoV-2 Spike RBD (receptor binding domain), 319-335**
RVQPTESIVRFPNITNL

Molecular formula: NA
Molecular weight: NA
CAS-No NA
EC-No NA

4. First Aid Measures

Inhalation:	If dust is inhaled, remove from contaminated area. Encourage patient to blow nose to ensure clear passage of breathing. If irritation or discomfort persists seek medical attention.
Ingestion:	If swallowed do **NOT** induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Seek medical advice.
Skin:	If skin or hair contact occurs: Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.
Eyes:	If this product comes in contact with the eyes: Wash out immediately with fresh running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. If pain persists or recurs seek medical attention.

5. Fire Fighting Measures

Extinguishing media:	Water spray or fog. Alcohol resistant foam. Dry chemical powder. BCF (where regulations permit). Carbon dioxide
Special firefighting procedures:	Alert Emergency Responders and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water course. Use water delivered as a fine spray to control fire and cool adjacent area. **DO NOT** approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire. Equipment should be thoroughly decontaminated after use.
Unusual fire and explosions hazards:	Emits toxic fumes under fire conditions

6. Accidental Release Measures

Spill response	Remove all ignition sources. Clean up all spills immediately. Avoid contact with skin and eyes. Control personal contact by using protective equipment. Use dry clean up procedures and avoid generating dust. Place in a suitable, labeled container for waste disposal
Containment	Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area.

	DO NOT enter confined spaces until atmosphere has been checked. DO NOT allow material to contact humans, exposed food or food utensils. Avoid contact with incompatible materials. When handling, DO NOT eat, drink or smoke. Keep containers securely sealed when not in use. Avoid physical damage to containers. Always wash hands with soap and water after handling. Use good occupational work practice. Empty containers may contain residual dust which has the potential to accumulate following settling. Such dusts may explode in the presence of an appropriate ignition source. Do NOT cut, drill, grind or weld such containers
PPE	Use personal protective equipment

7. Handling and Storage

Store at -20 °C, dry desiccated and protected from light. Store away from oxidizing agent.

8. Exposure Controls / Personal Protection

Engineering controls	Local exhaust ventilation is required where solids are handled as powders or crystals; even when particulates are relatively large, a certain proportion will be powdered by mutual friction. Exhaust ventilation should be designed to prevent accumulation and re-circulation of particulates in the workplace. If in spite of local exhaust an adverse concentration of the substance in air could occur, respiratory protection should be considered. Such protection might consist of: (a): particle dust respirators, if necessary, combined with an absorption cartridge; (b): filter respirators with absorption cartridge or canister of the right type; (c): fresh-air hoods or masks Build-up of electrostatic charge on the dust particle, may be prevented by bonding and grounding. Powder handling equipment such as dust collectors, dryers and mills may require additional protection measures such as explosion venting. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to efficiently remove the contaminant.
PPE	Use personal protective equipment

9. Physical and Chemical Properties

Physical State	White Powder
Odour	Not available
Solubility in Water	Not available
Specific Gravity	Not available
pH	Not available
Boiling Point	Not available
Melting Point	Not available
Flash Point	N/A
Vapor Pressure:	N/A
Vapor Density:	N/A

10. Stability and Reactivity

Thermal Decomposition	No data available
Dangerous Products of Decomposition	No data available
Dangerous Reactions	COx, NOx when burned

Keep container tightly closed in a dry well-ventilated place. Store in -20 °C, dry refrigerator.

11. Toxicological Information

RTECS Number	N/A
Toxicity	No information available.
Health Hazards	Although ingestion is not thought to produce harmful effects, the material may still be damaging to the health of the individual following ingestion, especially where pre-existing organ (e.g. liver, kidney) damage is evident. In an occupational setting however, ingestion of insignificant quantities is not thought to be cause for concern.
Potential Hazards	Not available
Carcinogenicity:	No significant acute toxicological data identified
OSHA Permissible Exposure Limit(PEL) Data	N/A
ACGIH Threshold Limit Values (TLV)	N/A

Reproductive Toxicity: No information available

12. Ecological Information

No information available.

13. Disposal Considerations

All waste must be handled in accordance with local, state and federal regulations. Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.

14. Transport Information

Hazard Class	N/A
Identification Number	N/A
Packing Group	N/A
Proper Shipping Name (DOT)	N/A

15. Regulatory Information

California Proposition 65: N/A
US TSCA (Toxic Substance Control Act): N/A

US CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act: N/A
US SARA Title III (Superfund Amendments and Reauthorization Act: N/A
US Other: N/A

EC EINICS (European Inventory of Existing Commercial Chemical Substances) Number: N/A

EC Risk Statements: N/A

Other Country Regulations: N/A

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.