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), 348-357			
	ASVYAWNRKR			
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-65607			
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)			
	commend handling all chemicals with caution. Use proper dling chemicals. To our knowledge, the hazards of this material			
have not been thoroughly investigated. GHS Hazard Classification: GHS Physical Hazards: Not a d	angerous 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

•	\sim	position
4	('am	nacifian

Ingredients/Components:

Chemical Name: SARS-CoV-2 Spike RBD (receptor binding domain), 348-357

ASVYAWNRKR

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.

Extinguishing madia.	<u>sures</u>	Water spray or fog.
Extinguishing media:		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		all ignition sources.
	Clean up all spills immediately.	
	Avoid cor	ntact with skin and eyes.
	Avoid control p	ntact with skin and eyes. ersonal contact by using protective equipment.
	Avoid con Control po Use dry c	ntact with skin and eyes. ersonal contact by using protective equipment. lean up procedures and avoid generating dust.
	Avoid con Control po Use dry con Place in a	ntact with skin and eyes. ersonal contact by using protective equipment. lean up procedures and avoid generating dust. suitable, labeled container for waste disposal
Containment	Avoid con Control pour Use dry con Place in a Avoid all	ntact with skin and eyes. ersonal contact by using protective equipment. lean up procedures and avoid generating dust. suitable, labeled container for waste disposal personal contact, including inhalation.
Containment	Avoid con Control p Use dry c Place in a Avoid all Wear prof	ntact with skin and eyes. ersonal contact by using protective equipment. lean up procedures and avoid generating dust. suitable, labeled container for waste disposal personal contact, including inhalation. tective clothing when risk of exposure occurs.
Containment	Avoid con Control pour Use dry con Place in a Avoid all Wear prof Use in a v	ntact with skin and eyes. ersonal contact by using protective equipment. lean up procedures and avoid generating dust. suitable, labeled container for waste disposal personal contact, including inhalation. tective clothing when risk of exposure occurs. vell-ventilated area.
Containment	Avoid con Control pouse dry con Place in a Avoid all Wear prof Use in a v DO NOT	ntact with skin and eyes. ersonal contact by using protective equipment. lean up procedures and avoid generating dust. suitable, labeled container for waste disposal personal contact, including inhalation. tective clothing when risk of exposure occurs. vell-ventilated area. enter confined spaces until atmosphere has been checked.
Containment	Avoid con Control pouse dry con Place in a Avoid all Wear prof Use in a v DO NOT DO NOT	ntact with skin and eyes. ersonal contact by using protective equipment. lean up procedures and avoid generating dust. suitable, labeled container for waste disposal personal contact, including inhalation. tective clothing when risk of exposure occurs. vell-ventilated area. enter confined spaces until atmosphere has been checked. allow material to contact humans, exposed food or food utensils.
Containment	Avoid con Control po Use dry co Place in a Avoid all Wear prof Use in a v DO NOT Avoid con	ntact with skin and eyes. ersonal contact by using protective equipment. lean up procedures and avoid generating dust. suitable, labeled container for waste disposal personal contact, including inhalation. tective clothing when risk of exposure occurs. vell-ventilated area. enter confined spaces until atmosphere has been checked. allow material to contact humans, exposed food or food utensils. intact with incompatible materials.
Containment	Avoid con Control po Use dry co Place in a Avoid all Wear prof Use in a v DO NOT DO NOT Avoid con When har	ntact with skin and eyes. ersonal contact by using protective equipment. lean up procedures and avoid generating dust. suitable, labeled container for waste disposal personal contact, including inhalation. tective clothing when risk of exposure occurs. vell-ventilated area. enter confined spaces until atmosphere has been checked. allow material to contact humans, exposed food or food utensils. ntact with incompatible materials. adding, DO NOT eat, drink or smoke.
Containment	Avoid con Control pour Use dry control pour design and Avoid all Wear protous in a void not book not b	ntact with skin and eyes. ersonal contact by using protective equipment. lean up procedures and avoid generating dust. suitable, labeled container for waste disposal personal contact, including inhalation. tective clothing when risk of exposure occurs. vell-ventilated area. enter confined spaces until atmosphere has been checked. allow material to contact humans, exposed food or food utensils. ntact with incompatible materials. adding, DO NOT eat, drink or smoke. tainers securely sealed when not in use.
Containment	Avoid con Control po Use dry con Place in a Avoid all Wear prof Use in a vo DO NOT DO NOT Avoid con When har Keep con Avoid phy	ntact with skin and eyes. ersonal contact by using protective equipment. lean up procedures and avoid generating dust. suitable, labeled container for waste disposal personal contact, including inhalation. tective clothing when risk of exposure occurs. vell-ventilated area. enter confined spaces until atmosphere has been checked. allow material to contact humans, exposed food or food utensils. ntact with incompatible materials. dling, DO NOT eat, drink or smoke. tainers securely sealed when not in use. ysical damage to containers.
Containment	Avoid con Control po Use dry con Place in a Avoid all Wear prof Use in a vo DO NOT DO NOT Avoid con When har Keep con Avoid phy Always w	ntact with skin and eyes. ersonal contact by using protective equipment. lean up procedures and avoid generating dust. suitable, labeled container for waste disposal personal contact, including inhalation. tective clothing when risk of exposure occurs. vell-ventilated area. enter confined spaces until atmosphere has been checked. allow material to contact humans, exposed food or food utensils. ntact with incompatible materials. ddling, DO NOT eat, drink or smoke. tainers securely sealed when not in use. ysical damage to containers. rash hands with soap and water after handling.
Containment	Avoid con Control po Use dry co Place in a Avoid all Wear prof Use in a v DO NOT DO NOT Avoid con When har Keep com Avoid phy Always w Use good	ersonal contact by using protective equipment. lean up procedures and avoid generating dust. suitable, labeled container for waste disposal personal contact, including inhalation. tective clothing when risk of exposure occurs. vell-ventilated area. enter confined spaces until atmosphere has been checked. allow material to contact humans, exposed food or food utensils. Intact with incompatible materials. Indling, DO NOT eat, drink or smoke. Itainers securely sealed when not in use. Itainers securely sealed when sealed when not in use. Itainers securely sealed when seal
Containment	Avoid con Control po Use dry co Place in a Avoid all Wear prof Use in a v DO NOT DO NOT Avoid con When har Keep con Avoid phy Always w Use good Empty co	ntact with skin and eyes. ersonal contact by using protective equipment. lean up procedures and avoid generating dust. suitable, labeled container for waste disposal personal contact, including inhalation. tective clothing when risk of exposure occurs. vell-ventilated area. enter confined spaces until atmosphere has been checked. allow material to contact humans, exposed food or food utensils. ntact with incompatible materials. ddling, DO NOT eat, drink or smoke. tainers securely sealed when not in use. ysical damage to containers. rash hands with soap and water after handling.
Containment	Avoid con Control po Use dry co Place in a Avoid all Wear prof Use in a v DO NOT DO NOT Avoid con When har Keep con Avoid phy Always w Use good Empty co following source.	ersonal contact by using protective equipment. lean up procedures and avoid generating dust. suitable, labeled container for waste disposal personal contact, including inhalation. tective clothing when risk of exposure occurs. well-ventilated area. enter confined spaces until atmosphere has been checked. allow material to contact humans, exposed food or food utensils. Intact with incompatible materials. Inding, DO NOT eat, drink or smoke. Itainers securely sealed when not in use. Itainers securely sealed when not in use. Itainers with soap and water after handling. Itainers may contain residual dust which has the potential to accumulate settling. Such dusts may explode in the presence of an appropriate ignition
Containment	Avoid con Control po Use dry co Place in a Avoid all Wear prof Use in a v DO NOT DO NOT Avoid con When har Keep con Avoid phy Always w Use good Empty co following source.	ersonal contact by using protective equipment. lean up procedures and avoid generating dust. suitable, labeled container for waste disposal personal contact, including inhalation. tective clothing when risk of exposure occurs. vell-ventilated area. enter confined spaces until atmosphere has been checked. allow material to contact humans, exposed food or food utensils. ntact with incompatible materials. adding, DO NOT eat, drink or smoke. tainers securely sealed when not in use. ysical damage to containers. rash hands with soap and water after handling. occupational work practice. ntainers may contain residual dust which has the potential to accumulate
Containment	Avoid con Control po Use dry co Place in a Avoid all Wear prof Use in a v DO NOT Avoid con When har Keep com Avoid phy Always w Use good Empty co following source. Do NOT	ersonal contact by using protective equipment. lean up procedures and avoid generating dust. suitable, labeled container for waste disposal personal contact, including inhalation. tective clothing when risk of exposure occurs. vell-ventilated area. enter confined spaces until atmosphere has been checked. allow material to contact humans, exposed food or food utensils. ntact with incompatible materials. adding, DO NOT eat, drink or smoke. tainers securely sealed when not in use. ysical damage to containers. ash hands with soap and water after handling. occupational work practice. ntainers may contain residual dust which has the potential to accumulate settling. Such dusts may explode in the presence of an appropriate ignition
	Avoid con Control po Use dry co Place in a Avoid all Wear prof Use in a v DO NOT Avoid con When har Keep com Avoid phy Always w Use good Empty co following source. Do NOT	ersonal contact by using protective equipment. lean up procedures and avoid generating dust. suitable, labeled container for waste disposal personal contact, including inhalation. tective clothing when risk of exposure occurs. vell-ventilated area. enter confined spaces until atmosphere has been checked. allow material to contact humans, exposed food or food utensils. Intact with incompatible materials. Indling, DO NOT eat, drink or smoke. Itainers securely sealed when not in use. Itainers securely sealed when not in use. Itainers with soap and water after handling. Induction occupational work practice. Intainers may contain residual dust which has the potential to accumulate settling. Such dusts may explode in the presence of an appropriate ignition cut, drill, grind or weld such containers
	Avoid con Control po Use dry co Place in a Avoid all Wear prof Use in a v DO NOT DO NOT Avoid con When har Keep con Avoid phy Always w Use good Empty co following source. Do NOT	ersonal contact by using protective equipment. lean up procedures and avoid generating dust. suitable, labeled container for waste disposal personal contact, including inhalation. tective clothing when risk of exposure occurs. vell-ventilated area. enter confined spaces until atmosphere has been checked. allow material to contact humans, exposed food or food utensils. Intact with incompatible materials. Indling, DO NOT eat, drink or smoke. Itainers securely sealed when not in use. Itainers securely sealed when not in use. Itainers with soap and water after handling. Induction occupational work practice. Intainers may contain residual dust which has the potential to accumulate settling. Such dusts may explode in the presence of an appropriate ignition cut, drill, grind or weld such containers

8. Exposure Controls Engineering controls		ilation is required where solids are handled as powders or crystals;			
Linguieering controls		ven when particulates are relatively large, a certain proportion will be powdered by			
	mutual friction.	T I I I I I I I I I I I I I I I I I I I			
	Exhaust ventilation	should be designed to prevent accumulation and re-circulation of			
		articulates 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.			
		generated in the workplace possess varying "escape" velocities which,			
		the "capture velocities" of fresh circulating air required to efficiently			
		emove the contaminant.			
PPE	Use personal prote				
		•			
9. Physical and Chemi	ical 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 Read	<u>etivity</u>				
Thermal Decomposition	n	No data available			
Dangerous Products of	Decomposition	No data available			
Dangerous Reactions		COx, NOx when burned			
Keep container tightly	closed in a dry well-v	entilated place. Store in -20 °C, dry refrigerator.			
11. Toxicological Info	<u>rmation</u>				
RTECS Number		N/A			
T		NT - 1 - C			

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
	l

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.