Safety Data Sheet

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Identifiers

Product Name: Pseudotyped GFP rSARS-CoV-2 Spike, Brazilian variant P.2 (Zeta)

Catalog Number: COVG-ZE2

Relevant Identified Uses: (Disclaimer) For research and laboratory use only. Not for diagnostic, therapeutic, drug, household or other uses.

Company Identifiers

Company: 45-1 Ramsey Road Shirley, NY 11967, USA

Tel: 1-631-624-4882

Fax: 1-631-938-8221

E-mail: info@creative-diagnostics.com

Internet: www.creative-diagnostics.com

SECTION 2: Composition/Information on Ingredients

Biological Product:

Virus name:	Recombinant SARS-CoV-2 Pseudotyped Lentiviral Reporter Viruses
Type:	Lentiviral vector
Promoter:	CMV
Replicative:	No
LTR:	HIV delta-U3 (deletion) self-inactivating, truncated 5' LTR from HIV-1

SECTION 3: HAZARDS IDENTIFICATION

Hazard: This product should be handled as a biohazardous material under Biosafety Level 2 or Enhanced Biosafety Level 2 Containment.Contact your local institutional biosafety office for accurate regional information.

Pathogenicity: Lentivirus-derived non-replicating vectors derived from HIV 1 do not encode the viral proteins or genome required for viral replication. Replication-defective lentiviral vectors are not known to cause any diseases in humans or animals.

However, they can integrate into the cell genome and thus pose some risk of insertional mutagenesis.SARS-CoV 2 reporter pseudotyped virus have a limited cell tropism based on the Spike protein that mediates fusion, and infect only permissive cells (e.g. that express the receptor ACE-2).

The Pseudotyped Luciferase rSARS-CoV-2 Spike is derived from a second-generation 3 plasmid system that requires 3 recombination events to generate replication competent lentivirus. Gag and pol genes are together on the same plasmid as tat and rev. The HIV1 accessory genes vif, vpr, vpu, nef are absent. The HIV-1 envelope gene is also absent. The genome packaged into the virus does not encode viral proteins.

Bio-Hazard:

As per guidelines recommended by the NIH, replication-incompetent lentiviral particles are to be handled as Risk Group-Level 2 (RGL2) (https://osp.od.nih.gov/wpcontent/uploads/Lenti_Containment_Guida nce.pdf)

Composition Hazard:

Buffers:

NR: BDH Hazard Class System.
Corresponds to UN Hazard Classification.

Chelatings:

See individual product datasheet.

Preservatives:

See individual product datasheet.

Protective agents:

See individual product datasheet.

Stability And Reactivity:

Thermal decomposition:

> 275°C (527 deg F).

Conditions to avoid:

Humidity; Contact with water, acids, heavy metals (lead, copper), metal salt, bromine, methylene chloride, carbon disulfide, sulfuric acid, halogenated, hydrocarbons.

Reaction Hazard:

May liberate toxic gas.

Decomposition Hazard:

Nitrous gas

Caution:

MAY BE HARMFUL IF SWALLOWED.
Do not ingest. Wash thoroughly after handling.
Do not get in eyes, on skin, or on clothing.

Potential Acute Health Effects

Routes of Entry:

Dermal contact. Eye contact. Inhalation. Ingestion.

Eyes:

Eye contact may cause transient eye irritation. (BSA)

Skin:

Causes skin irritation. May be fatal if absorbed through the skin.

Inhalation:

Highly toxic if swallowed (R28): Causes irritation of mouth, pharynx, gullet and gastrointestinal tract.
Mucosal irritation, cough, dyspnea, pulmonary edema after lag time.

Ingestion:

Ingestion may cause allergic reaction characterized by a rash. (BSA)

Sensitizing effects:

Not known.

Industrial handling:	Handle as if capable of transmitting infectious agents. Replication-defective lentiviral vectors are not known to cause disease in humans or animals. However, lentiviruses can integrate into the host cell genome and may pose some risk of insertional mutagenesis)

SECTION 4: First Aid Measures

General advice:	Consult a doctor and show this safety data sheet.
Eye contact:	Flush eyes with plenty of water for at least 10 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if symptoms occur.
Skin contact:	Immediately wash skin with copious amounts of soap and water for at least 15 minutes. Remove contaminated clothing and wash before reuse. Get medical attention if discomfort persists.
If inhaled:	Remove to fresh air and monitor breathing. Give oxygen if breathing becomes difficult, give artificial respiration if breathing stops. Get medical attention if symptoms appear.
If ingested:	Rinse mouth thoroughly with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.
Notes to physician:	No specific antidote. Medical staff must contact Poison Control Center. To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

SECTION 5: Fire-Fighting Measures

Extinguishing media:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special exposure hazards:	Nature of decomposition products not known.
Precautions for fire-fighters:	ire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
PFurther information:	No data available.

SECTION 6: Accidental Release Measures

Personal precautions:	Immediately contact emergency personnel. Use suitable protective equipment. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid breathing vapors, mist, dust or gas. Dispose cloth in accordance with local disposal guidelines.
Environmental precautions:	Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains

and sewers.

Cleaning up: Avoid creating dusty conditions and prevent wind dispersal.

SECTION 7: Handling And Storage

Handling: Do not ingest. Wash thoroughly after handling.

Storage: As directed on individual product datasheet.

SECTION 8: Exposure Controls/ Personal Protection

Engineering Controls: Use in a fume hood where applicable. Ensure laboratory is equipped with a safety shower and eye wash station.

Personal Protective: Safety glasses; Face shield; Lab coat; Rubber or plastic gloves; Respirator if needed.

SECTION 9: Physical And Chemical Properties

Physical state: Liquid or lyophilized powder.

Odor: Little to none.

Solubility in water: Miscible in all proportions.

Additional information: No data available.

SECTION 10: Stability And Reactivity

Chemical stability: Stable under recommended transport or storage conditions.

Reactivity: Stable under normal handling conditions.

Hazardous reactions: Will not occur under normal transport or storage conditions.

SECTION 11: Toxicological Information

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Ingestion: There may be irritation of the throat.

Skin: There may be mild irritation at the site of contact.

Eyes: There may be irritation and redness.

Additional information:

Thiomersa: Toxic. Irritant to eyes and skin.
Avoid ingestion or contact with skin and eyes.

Bronidox: Avoid direct contaction of the concentrated chemical with the skin and mucous membrane.

SECTION 12: Ecological Information

Toxicity: Sodium azide and Proclin 300 contained are toxic to fish and wildlife. Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains and sewers.

SECTION 13: Disposal Considerations

Waste product: Transfer to a suitable container and arrange for collection by specialized disposal company in accordance with national, regional, or local legislation.

Contaminated Packaging : Dispose of in a regulated landfill site or other method for hazardous or toxic wastes in accordance with national, regional, or local legislation.

SECTION 14: Transport Information

IATA / ADR /DOT-US / IMDG
Not regulated in the meaning of transport regulations.

UN number	Not Applicable
UN proper shipping name	Not Applicable
Transport hazard class(es)	Not Applicable
Packing group	Not Applicable
Environmental hazards	Not Applicable
Special precautions for user	Not Applicable

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not Applicable.

SECTION 15: Regulatory information

US Federal Regulations

SARA 313
This product is not regulated by SARA.

Clean Air Act,Section 12 Hazardous Air Pollutants(HAPs)(see 40 CFR 61)
This product does not contains HAPs.

US State Regulations

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

WHMIS Hazard Class
Non-controlled

This product has been classified in accordance with this hazard criterial of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

SECTION 16: Other Information

The information contained in this SDS relates only to the material(s) designated and does not relate to use(s) in combination with any other material, process(es) and/or chemical reaction(s).

Notice to reader

For research and in vitro use only. Not for diagnostic or therapeutic work.
CD provides this information in good faith and is based on best of our present knowledge. This SDS is provided without warranty of any kind. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user.
All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. The recipient is responsible for ensuring that, where applicable, existing laws and guidelines are observed.

End of Safety Data Sheet