

**SAFETY DATA SHEET: Positive control SARS-CoV2 Spike protein expressing pseudo virus**

According to Regulation (EC) No 1907/2006, Annex II, as amended. Commission Regulation (EU) No 2015/830 of 28 May 2015.

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

1.1. Product identifier Product name  
**v-SCREEN Positive control SARS-2 SPIKE expressing pseudotype (liquid aliquots)**

1.2 Relevant Identified Uses of the Substance/Mixture and Uses Advised Against  
 Investigational research by professional users

1.3 Details of the Supplier of the Safety Data Sheet  
 MAP Diagnostics Ltd, The iLAB Stannard Way, Priory Business Park, Bedford,  
 Bedfordshire MK44 3RZ

**SECTION 2 - HAZARDS IDENTIFICATION**

2.1 Classification of the Substance or Mixture  
 Classification according to Regulation (EC) No. 1272/2008 [EU-GHS/CLP] **ASSUME**  
 H302 - Acute Toxicity-Oral (Category 4)  
 H315 - Skin Corrosion/Irritation (Category 2)  
 H319 - Serious Eye Damage/Eye Irritation (Category 2A)  
 H335 - Specific Target Organ Toxicity, Single Exposure (Category 3)

2.2 Label Elements  
 GHS LABEL ELEMENTS AND CLASSIFICATION

GHS Label Elements



WARNING  
 H302 - Harmful if swallowed  
 H315 - Causes skin irritation.  
 H319 - Causes serious eye irritation.  
 H335 - May cause respiratory irritation.  
 P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.  
 P302+P352 - IF ON SKIN: Wash with plenty of soap and water.  
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.  
 P501 - Dispose of contents/containers to an approved waste disposal plant.

2.3 Other Hazards  
 Biological

**SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS**

3.1 Substance  
 Chemical Names/Description

## MSDS: SARS-CoV2 Spike protein expressing Pseudo Virus

### Chemical Formula

Combination Inert Biological exosome produced by HEK-2 cells transfected with plasmids expressing Lenti Envelope proteins and SAR-2 spike protein genes. Unable to replicate.

### Component List

#### Component

Lipid membrane

Lenti construct Envelope proteins

SARS-2 Spike proteins

Luciferase reporter gene

## SECTION 4 - FIRST AID MEASURES

### 4.1 Description of First Aid Measures

#### Inhalation

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

#### Ingestion

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

#### Skin

Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

#### Eyes

Immediately flush eyes with plenty of water for at least fifteen minutes, lifting lower and upper eyelids occasionally. Get medical attention if needed.

### 4.2 Most Important Symptoms and Effects, Both Acute and Delayed

#### Inhalation

Symptoms may include coughing.

#### Ingestion

Symptoms may include nausea, vomiting, diarrhea.

#### Skin

Symptoms may include redness, itching.

#### Eyes

Symptoms may include redness.

### 4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed

Unknown/not applicable

## SECTION 5 - FIRE FIGHTING MEASURES

### 5.1 Extinguishing media

Water spray, dry chemical, alcohol-resistant foam, or carbon dioxide.

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### 5.2 Special Hazards Arising from the Substance/Mixture

#### Hazardous Decomposition Products

Burning may produce carbon monoxide, carbon dioxide, and/or sulfur oxides.

#### Hazardous Polymerization

Will not occur under normal conditions of use (See Sections 10.4 & 10.5).

### 5.3 Advice for Firefighters

None. heating and detergents destroy all biological activity

### 5.4 Further Information

heating and detergents destroy all biological activity

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

### 6.1 Personal Precautions

Wear appropriate protective equipment as specified in Section 8.

### 6.2 Environmental Precautions

Prevent discharge into the environment. Dike spills and stop leakage where practical. Do not allow material to enter drains. Heating and detergents destroy all biological activity

### 6.3 Methods and Materials for Containment and Cleaning Up

Use absorbent material to collect and contain for salvage or disposal.

### 6.4 References to Other Sections

For disposal information, see Section 13. For protective clothing and equipment, see Section 8.

## SECTION 7 - HANDLING AND STORAGE

### 7.1 Precautions for Safe Handling

Avoid contact and inhalation. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling.

### 7.2 Conditions for Safe Storage (including any incompatibles)

#### Incompatibles

N/a

### 7.3 Specific End Uses

Investigational research by professional users

## SECTION 8 - EXPOSURE CONTROLS/PERSONAL PRECAUTIONS

### 8.1 Control Parameters

ACGIH Threshold Limit Value (TLV): None established

OSHA Permissible Exposure Limit (PEL): None established

### 8.2 Exposure Controls

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### Engineering Controls

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source.

### Respiratory Protection

For conditions of use where exposure to the dust or mist is apparent, a full-face dust/mist respirator may be worn. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator.

### Eye Protection

Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

### Skin Protection

Wear protective gloves and clean body covering clothing.

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on Basic Physical & Chemical Properties

a. Appearance	Red liquid	b. Odor	none
c. Odor Threshold	N.A.	d. pH <b>7.4</b>	
e. Melting/Freezing Point (°C)	(0C)	f. Boiling point (°C)	(100C)
g. Flash Point (°C)	N.A	h. Evaporation Rate	N.A.
i. Flammability	N.A.	j. Upper/Lower Flammability or Explosive Limits	N.A.
k. Vapor Pressure	N.A.	l. Vapor Density (Air = 1)	N.A
m. Relative Density	1.0	n. Water Solubility	Soluble
o. Partition Coefficient n-octanol/water	N.A.	p. Autoignition Temperature (°C)	N.A.
q. Decomposition Temperature (°C)	50	r. Viscosity	No data available.
s. Explosive Properties	N.A.	t. Oxidizing Properties	not an oxidizer

## SECTION 10 - STABILITY AND REACTIVITY

### 10.1 Reactivity

Will attach and transfect luciferase report gene in permissive cells expressing ACE II receptors

### 10.2 Chemical Stability

Stable under ordinary conditions of use and storage. Heating and detergents destroy all biological activity

### 10.3 Possibility of Hazardous Reactions

Will not occur under normal conditions of use (See Sections 10.4 & 10.5).

### 10.4 Conditions to Avoid

### 10.5 Incompatible Materials

### 10.6 Hazardous Decomposition Products

**MSDS: SARS-CoV2 Spike protein expressing Pseudo Virus**

Burning may produce carbon monoxide, carbon dioxide, and/or sulfur oxides.

**SECTION 11 - TOXICOLOGICAL INFORMATION**

Product LD50 Values UNKNOWN

Oral Rat LD50 (mg/kg)

Dermal Rabbit LD50 (mg/kg)

Component Cancer List Status

	NTP Carcinogen		IARC Category
	Known	Anticipated	
	No	No	None

Potential Health Effects

Inhalation

Unknown

Ingestion

Unknown.

Skin

May cause dermatitis.

Eyes

Contact with the eye may cause sever irritation.

Carcinogenicity

No information is available.

Mutagenicity

No information is available.

Reproductive Toxicity

No information is available.

Teratogenic Effects

No information is available.

Routes of Entry

Contact with this material by any route of exposure (eye/skin, inhalation or ingestion) may cause adverse health consequences.

Target Organ Statement

No information is available.

**SECTION 12 - ECOLOGICAL INFOMATION**

12.1 Toxicity

	Vertebrates	Invertebrates	Algae	Microorganisms
Aquatic Toxicity	No data	No data	No data	No data

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(ppm unless otherwise noted)

	Birds	Arthropods	Plants	Microorganisms
Terrestrial Environment Toxicity (ppm unless otherwise noted)	No data	No data	No data	No data

### 12.2 Persistence and Degradability

No data

### 12.3 Bioaccumulative Potential

No data

### 12.4 Mobility in Soil

No data

### 12.5 Results of PBT and vPvB Assessment

No data

### 12.6 Other Adverse Effects

None

## SECTION 13 - DISPOSAL CONSIDERATIONS

### 13.1 Waste Treatment Methods

Disposal is subject to user compliance with applicable law and product characteristics at time of disposal. Dispose of packaging as product. Heating and detergents destroy all biological activity.

## SECTION 14 - TRANSPORT INFORMATION

	ADR/RID	IATA	IMO	DOT
14.1 UN Number	N.A.	N.A.	N.A.	N.A.
14.2 Shipping Name	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.3 Hazard Class	N.A.	N.A.	N.A.	N.A.
14.4 Packing Group	N.A.	N.A.	N.A.	N.A.
14.5 Environmental Hazards	N.A.	N.A.	N.A.	N.A.
14.6 Special Precautions	N.A.	N.A.	N.A.	N.A.

## SECTION 15 - REGULATORY INFORMATION

### 15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance/Mixture

United States

TSCA Regulatory Statement

### SARA 311/312 Hazard Categories

Component	Fire	Pressure	Reactivity	Acute	Chronic
	No	No	No	No	Unknown

Europe

EEC Regulatory

SECTION 16 - OTHER INFORMATION

MANUFACTURER DISCLAIMER: The information given herein is offered in good faith as accurate, but without guarantee. Conditions of the use and suitability of the product for particular uses are beyond our control. All risks of use of the product are therefore assumed by the user. Nothing is intended as a recommendation for uses which infringe valid patents or as extending license under valid patents. Appropriate warnings and safe handling procedures should be provided to handlers and users.