

SAFETY DATA SHEET

SDS DATE: December 11, 2020



SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: BioSim™ Pembrolizumab (Human) ELISA Kit

RESTRICTIONS ON USE: For laboratory research purposes. Not for drug or household use.

PRODUCT CODES: Cat# E4383-100

MANUFACTURER: BioVision, Inc.

ADDRESS: 155 S. Milpitas Boulevard, Milpitas, CA 95035

EMERGENCY PHONE: 858-373-8066

OTHER CALLS: 408-493-1800

FAX PHONE: 408-493-1801

SECTION 2: HAZARDS IDENTIFICATION

| Component | Description | Volume | Safety Information |
|-----------------------------------|---------------------------------------|------------|--------------------|
| Micro ELISA Plate | -- | 1 plate | No hazards |
| Pembrolizumab Standards (S1 – S7) | Liquid | 0.3 ml X 7 | No hazards |
| Assay Buffer | Liquid | 2 X 50 ml | No hazards |
| HRP-conjugate Probe | Liquid | 11 ml | No hazards |
| TMB substrate (Avoid light) | Liquid | 12 ml | No hazards |
| Stop Solution | Solution (Contains Hydrochloric acid) | 12 ml | See below |
| Wash buffer (20X) | Liquid | 50 ml | No hazards |
| Plate sealers | -- | 2 | No hazards |

Hydrochloric acid:

Emergency Overview

GHS Classification: Corrosive to metals (Category 1), H290

GHS Label elements, including precautionary statements

Pictogram:



Signal word: Warning

Hazard statement(s): H290 May be corrosive to metals.

Precautionary statement(s): P234 Keep only in original container.

P390 Absorb spillage to prevent material damage.

P406 Store in corrosive resistant stainless steel container with a resistant inner liner.

HMIS Classification

Health hazard: 3

Chronic Health Hazard: *

Flammability: 0

Physical hazards: 0

NFPA Rating

Health Hazard: 3

Fire: 0

Reactivity Hazard: 0

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| Component | CAS Number | EC-No. | Molecular Weight | Chemical Formula | Concentration |
|-------------------|------------|-----------|------------------|------------------|---------------|
| Hydrochloric acid | 7647-01-0 | 231-595-7 | 36.458 | HCl | <10% |

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SECTION 4: FIRST AID MEASURES

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact: Wash off with soap and plenty of water. Consult a physician.

In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire fighters: Wear self-contained breathing apparatus for firefighting if necessary.

Hazardous combustion products: Hazardous decomposition products formed under fire conditions— see section 10.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions: Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods for cleaning up: Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Avoid inhalation of vapor or mist. Avoid contact with skin and eyes. Provide appropriate exhaust ventilation at places where dust is formed.

Normal measures for preventive fire protection.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place.

Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage temperature: 4 °C

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Hydrochloric acid:

| Components | CAS-No. | Value | Control parameters | Basis |
|-------------------|-----------|-------|------------------------------|--|
| Hydrogen chloride | 7647-01-0 | C | 2 ppm | USA. ACGIH Threshold Limit Values (TLV) |
| | | | | Upper Respiratory Tract irritation Not classifiable as a human carcinogen |
| | | C | 5 ppm 7 mg/m ³ | USA. NIOSH Recommended Exposure Limits |
| | | | | Often used in an aqueous solution. |
| | | C | 5 ppm 7 mg/m ³ | USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants |
| | | | | The value in mg/m ³ is approximate. Ceiling limit is to be determined from breathing-zone air samples. |
| | | C | 5 ppm 7 mg/m ³ | USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000 |

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Avoid contact with skin, eyes, and clothing. Wash hands before breaks and immediately after handling the product.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (Isopropanol)

| Property | Hydrochloric acid |
|----------------------------|-------------------|
| Appearance: | Liquid |
| pH: | No data available |
| Water Solubility: | No data available |
| Other Solubility: | No data available |
| Boiling Point (°C): | No data available |
| Melting Point (°C): | No data available |
| Flash Point (°C): | No data available |
| Ignition Temperature (°C): | No data available |
| Density: | No data available |

SECTION 10: STABILITY AND REACTIVITY

| Property | Hydrochloric acid |
|-----------------------------------|--|
| Chemical stability: | Stable under recommended storage conditions |
| Conditions to avoid: | No data available |
| Materials to avoid: | Strong oxidizing agents, Bases, Amines, Alkali metals, Copper, Copper alloys |
| Hazardous decomposition products: | No data available |

SECTION 11: TOXICOLOGICAL INFORMATION

Hydrochloric acid:

Acute toxicity: no data available

Irritation and corrosion: no data available

Sensitization: no data available

Germ cell mutagenicity: no data available

Carcinogenicity: no data available

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Hydrochloric acid).

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: no data available

Teratogenicity: no data available

Specific target organ toxicity – single exposure (GHS): Inhalation – may cause respiratory irritation.

Specific target organ toxicity – repeated exposure (GHS): no data available

Signs and Symptoms of Exposure: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional information: RTECS: not available

SECTION 12: ECOLOGICAL INFORMATION

Persistence and degradability: no data available

Toxicity: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

PBT and vPvB assessment: no data available

Other adverse effects: no data available

SECTION 13: DISPOSAL CONSIDERATIONS

Product: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging: Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

Hydrogen chloride:

DOT (US): UN number: 1789 Class: 8 Packing group: III; Proper shipping name: Hydrochloric acid; Reportable Quantity (RQ): Marine pollutant: No; Poison Inhalation Hazard: No

IMDG: UN number: 1789 Class: 8 Packing group: III EMS-No: F-A, S-B; Proper shipping name: HYDROCHLORIC ACID; Marine pollutant: No

IATA: UN number: 1789 Class: 8 Packing group: III; Proper shipping name: Hydrochloric acid

SECTION 15: REGULATORY INFORMATION

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SARA 302 Components: SARA 302: No chemical in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components: SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title II, Section 313.

SARA 311/312 Hazards: No SARA Hazards

Massachusetts Right To Know Components: Hydrochloric acid, CAS-No. 7647-01-0; Revision Date: 1993-04-24

Pennsylvania Right To Know Components:

Hydrochloric acid, CAS-No. 7647-01-0; Revision Date: 1993-04-24

New Jersey Right To Know Components:

Hydrochloric acid, CAS-No. 7647-01-0; Revision Date: 1993-04-24

California Prop. 65 Components:  WARNING: This product can expose you to chemicals including TMB, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

EU regulations:

| Component | Risk Phrases | Safety Phrases |
|-------------------|--------------|----------------|
| Hydrochloric acid | -- | -- |

SECTION 16: OTHER INFORMATION

DISCLAIMER:

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. BioVision, Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.