SAFETY DATA SHEET
Cat#A1307 Anti-PD-1 (Nivolumab), Humanized Antibody

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Anti-PD-1 (Nivolumab), Humanized Antibody

PRODUCT CODES: Cat# A1307-100

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

MANUFACTURER: BioVision, Inc.
ADDRESS: 155 South Milpitas Blvd., Milpitas, CA 95035

EMERGENCY PHONE: 858-373-8066
CHEMTREC PHONE: OTHER CALLS: 408-493-1800
FAX PHONE: 408-493-1801

SECTION 2: HAZARDS IDENTIFICATION

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Description</th>
<th>Volume</th>
<th>Safety Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anti-PD-1 (Nivolumab), Humanized Antibody</td>
<td>Liquid</td>
<td>100 µg</td>
<td>See below</td>
</tr>
</tbody>
</table>

Anti-PD-1 (Nivolumab), Humanized Antibody:
Emergency Overview: Originates from USA where BSE has not been reported
OSHA Hazards: No known OSHA hazards
GHS Classification: Not a dangerous substance according to GHS
GHS Label elements, including precautionary statements
Pictogram: none
Signal word: none
Hazard statement(s): none
Precautionary statement(s): none

HMIS Classification
- Health hazard: 0
- Flammability: 0
- Physical hazards: 0

NFPA Rating
- Health Hazard: 0
- Fire: 0
- Reactivity Hazard: 0

Potential Health Effects
- Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.
- Skin: May be harmful if absorbed through skin. May cause skin irritation.
- Eyes: May cause eye irritation.
- Ingestion: May be harmful if swallowed.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Number</th>
<th>EC-No.</th>
<th>Molecular Weight</th>
<th>Chemical Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anti-PD-1 (Nivolumab), Humanized Antibody</td>
<td>--</td>
<td>--</td>
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<td>--</td>
</tr>
</tbody>
</table>

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: DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

SECTION 5: FIRE-FIGHTING MEASURES

Condition of flammability: Not flammable or combustible.
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 combustion products formed under fire conditions—no data available.
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 contact with skin and eyes. Avoid formation of dust and aerosols. 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.
Recommended storage temperature: -20 °C

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Anti-PD-1 (Nivolumab), Humanized Antibody:
Contains no substances with occupational exposure limit values.

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.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Anti-PD1 (Pembrolizumab), humanized Antibody</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance:</td>
<td>No data available</td>
</tr>
<tr>
<td>pH:</td>
<td>No data available</td>
</tr>
<tr>
<td>Water Solubility:</td>
<td>No data available</td>
</tr>
<tr>
<td>Other Solubility:</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling Point (°C):</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting Point (°C):</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash Point (°C):</td>
<td>No data available</td>
</tr>
<tr>
<td>Ignition Temperature (°C):</td>
<td>No data available</td>
</tr>
<tr>
<td>Density:</td>
<td>No data available</td>
</tr>
</tbody>
</table>

SECTION 10: STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Property</th>
<th>Anti-PD1 (Pembrolizumab), humanized Antibody</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical stability:</td>
<td>Stable under recommended storage conditions</td>
</tr>
<tr>
<td>Conditions to avoid:</td>
<td>No data available</td>
</tr>
<tr>
<td>Materials to avoid:</td>
<td>Strong oxidizing agents</td>
</tr>
<tr>
<td>Hazardous decomposition products:</td>
<td>No data available</td>
</tr>
</tbody>
</table>
SECTION 11: TOXICOLOGICAL INFORMATION

**Anti-PD-1 (Nivolumab), Humanized Antibody:**

**Acute toxicity:** no data available  
**Irritation and corrosion:** no data available  
**Sensitization:** no data available  
**Germ cell mutagenicity:** no data available  
**Carcinogenicity:**
- **IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.  
- **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):** no data available  
**Specific target organ toxicity – repeated exposure (GHS):** no data available  
**Potential Health Effects**
- **Inhalation:** May be harmful if inhaled. May cause respiratory tract irritation.  
- **Skin:** May be harmful if absorbed through skin. May cause skin irritation.  
- **Eyes:** May cause eye irritation.  
- **Ingestion:** May be harmful if swallowed.  
**Synergistic effects:** no data available  
**Additional information:** RTECS: not available

SECTION 12: ECOLOGICAL INFORMATION

**Anti-PD-1 (Nivolumab), Humanized Antibody:**

**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:** Observe all federal, state, and local environmental regulations.  
**Contaminated packaging:** Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

**Anti-PD-1 (Nivolumab), Humanized Antibody:**

**DOT (US):** Not dangerous goods.  
**IMDG:** Not dangerous goods.  
**IATA:** Not dangerous goods.

SECTION 15: REGULATORY INFORMATION

**OSHA Hazards:** No known OSHA hazards  
**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 III, Section 313.  
**SARA 311/312 Hazards:** No SARA Hazards  
**Massachusetts Right To Know Components:** No components are subject to the Massachusetts Right to Know Act.  
**Pennsylvania Right To Know Components:** No components are subject to the Pennsylvania Right to Know Act.  
**New Jersey Right To Know Components:** No components are subject to the New Jersey Right to Know Act.  
**California Prop. 65 Components:** This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.  
**EU regulations:** This product is not classified according to the EU regulations.

### Component Risk Phrases Safety Phrases  

<table>
<thead>
<tr>
<th>Component</th>
<th>Risk Phrases</th>
<th>Safety Phrases</th>
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<tbody>
<tr>
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SECTION 16: OTHER INFORMATION

**DISCLAIMER:**
SAFETY DATA SHEET
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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.