Material Safety Data Sheet (MSDS)
PBS

I. Company Identification:

Manufacturer Supplier: GeneTex Inc
2456 Alton Pkwy,
Irvine, CA92606, USA
(1.877.436.3839) Toll-free TEL
949.309.2888 Fax
Or
GeneTex International Corp.
6F.-2, No.89, Dongmei Rd., East Dist.
Hsinchu City 30070, Taiwan (R.O.C.)
886.3.6208988 TEL
886.3.6208989 Fax
www.genetex.com

II. Hazard Identification:

Classification of the substance or mixture
Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008

Label elements
Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008
Pictogram:
none

III. Composition/Information on Ingredients:

This product is composed of antibodies in aqueous buffer solution.
This product may contain the following ingredients.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS#</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium chloride</td>
<td>7647-14-5</td>
<td>0.8%</td>
</tr>
<tr>
<td>Sodium phosphate dibasic</td>
<td>7558-79-4</td>
<td>0.178%</td>
</tr>
<tr>
<td>Dihydrogen potassium phosphate</td>
<td>7778-77-0</td>
<td>0.023%</td>
</tr>
<tr>
<td>Potassium chloride</td>
<td>7447-40-7</td>
<td>0.02%</td>
</tr>
</tbody>
</table>

IV. First Aid Measures:

Description of first aid measures

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance.

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

In case of skin contact:
Take off contaminated clothing and shoes immediately. 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.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section II) and/or in section XI
Indication of any immediate medical attention and special treatment needed no data available

V. Fire Fighting Measures:

Description of first aid

Extinguishing media

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

Special hazards arising from the substance or mixture

Oxides of phosphorus, Hydrogen chloride gas, Potassium oxides, Sodium oxides
Advice for firefighters
Wear self contained breathing apparatus for fire fighting if necessary.

Further information
No data available

VI. Accidental Release Measures:
Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.
For personal protection see section VIII.

Environmental precautions
Do not let product enter drains.

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

Reference to other sections
For disposal see section XIII

VII. 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.

Conditions for safe storage, including any incompatibilities
Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Specific end use(s)
Apart from the uses mentioned in section I no other specific uses are stipulated

VIII. Exposure Controls/Personal:
Control parameters
Components with workplace control parameters
Exposure controls
Appropriate engineering controls
Handle in accordance with good industrial hygiene and safety practice.
Wash hands before breaks and at the end of workday.

Personal protective equipment
Eye/face protection
Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN166(EU).

Skin 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.
The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

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.

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).
Control of environmental exposure
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**IX. Physical And Chemical Properties:**

Information on basic physical and chemical properties

a) Appearance Form: solid

b) Odour: no data available
c) Odour Threshold: no data available
d) pH: 7.2 - 7.6 at 25 °C
e) Melting point/freezing point: No data available
f) Initial boiling point and boiling range: No data available
g) Flash point: Not applicable

h) Evaporation rate: no data available

i) Flammability (solid, gas): no data available

j) Upper/lower flammability or explosive limits: no data available

k) Vapour pressure: no data available

l) Vapour density: no data available

m) Relative density: 1.03 g/cm3

n) Water solubility: soluble

o) Partition coefficient n-octanol/water: no data available

p) Auto-ignition temperature: no data available

q) Decomposition temperature: no data available

r) Viscosity: no data available

s) Explosive properties: no data available

t) Oxidizing properties: no data available

Other safety information: no data available

**X. Stability and Reactivity:**

Reactivity: no data available

Chemical stability: Stable under recommended storage conditions.

Possibility of hazardous reactions: no data available

Conditions to avoid: no data available

Incompatible materials: Strong oxidizing agents, Strong acids

Hazardous decomposition products:

Other decomposition products - no data available

In the event of fire: see section V

**XI: Toxicological Information:**

Information on toxicological effects

Acute toxicity: no data available

Skin corrosion/irritation: No data available

Respiratory or skin sensitisation: No data available

Serious eye damage/eye irritation: No data available

Respiratory or skin 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.

Reproductive toxicity: no data available

Specific target organ toxicity - single exposure: no data available

Specific target organ toxicity - repeated exposure: no data available

Aspiration hazard: no data available

Additional Information

RTECS: Not available

burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

**XII: Ecological Information:**

Toxicity: no data available

Persistence and degradability: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

Results of PBT and vPvB assessment:

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Other adverse effects:

No data available
XIII. Disposal Considerations:
Waste treatment methods
Product: Offer surplus and non-recyclable solutions to a licensed disposal company. 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.

XIV. Transport Information:
UN number:
ADR/RID: - IMDG: - IATA: -
UN proper shipping name
ADR/RID: Not dangerous goods
IMDG: Not dangerous goods
IATA: Not dangerous goods
Transport hazard class (es):
ADR/RID: - IMDG: - IATA: -
Packaging group:
ADR/RID: - IMDG: - IATA: -
Environmental hazards:
ADR/RID: no IMDG Marine pollutant: no IATA: no
Special precautions for user: no data available

XV. Regulatory Information:
This safety datasheet complies with the requirements of Regulation (EC) No. 453/2010.
Safety, health and environmental regulations/legislation specific for the substance or mixture: no data available
Chemical Safety Assessment: For this product a chemical safety assessment was not carried out

XVI. Other Information:
This compound is sold only for research use by personnel familiar with chemicals and who are well trained in good laboratory habits, such as avoiding spills, keeping hands clean at all times and not rubbing eyes with hands while working in the laboratory.
This solution is sold only in microliter quantities for use in life sciences research. No other use is intended, and any other use may involve substantive hazards. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide for experienced personnel. GeneTex International Corp. shall not be held liable for any damage resulting from the handling of or from contact with the above product. The burden of safe use of this material rests entirely with the user.