



7040 Virginia Manor Road  
Beltsville, MD 20705, USA  
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## Material Safety Data Sheet

### Section 1. Identification of the Substance/Mixture

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**Product name:** Polyethylenimine (PEI)

#### Manufacturer/Supplier identification

ABP Biosciences  
7040 Virginia Manor Road, Beltsville, MD 20705, USA  
Web: [www.abpbio.com](http://www.abpbio.com)  
Tel: 301-658-7993  
Email: [info@abpbio.com](mailto:info@abpbio.com)

**For research use only. Not for use in diagnosis procedures**

### Section 2. Hazards Identification

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#### GHS Classification

**Signal Word:** None  
**Hazard pictograms:** None  
**Health hazards:** Not hazardous  
**Physical hazards:** Not hazardous  
**Environmental hazards:** Not hazardous  
**Hazard Statements:** Not Applicable  
**Prevention:** Not Applicable  
**Response:** Not Applicable  
**Disposal:** Not Applicable  
**Other hazards:** Not Applicable

#### HMIS

Health	0
Flammability	0
Reactivity	0

### Section 3. Composition/Information on Ingredients

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Chemical Name	CAS-No	EINECS-No	Weight %
PEI	49553-93-7	-	60-100

### Section 4. First Aid Measures

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#### Description of first aid measures

**Skin contact** Rinse skin with water. Immediate medical attention is not required.

**Eye contact** Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing.

**Ingestion**

Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice.

**Inhalation**

Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Consult a physician if necessary.

**Notes to Physician**

Treat symptomatically.

**Most important symptoms and effects, both acute and delayed**

Not Applicable

**Indication of any immediate medical attention and special treatment needed**

None.

**Section 5. Fire-Fighting Measures**

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**Extinguishing media**

**Suitable extinguishing media**

Water spray. Carbon dioxide (CO<sub>2</sub>). Foam. Dry chemical.

**Unsuitable extinguishing media**

No information available.

**Special hazards arising from the substance or mixture**

Not known

**Protective equipment and precautions for firefighters**

Standard procedure for chemical fires.

**Section 6. Accidental Release Measures**

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**Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation

Always wear recommended Personal Protective Equipment

Use personal protection equipment

See section 8 for more information

**Environmental precautions**

No special environmental precautions required.

**Methods and material for containment and cleaning up**

Soak up with inert absorbent material.

**Reference to other sections**

See section 8 for more information.

**Section 7. Handling and Storage**

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**Precautions for safe handling**

Use personal protective equipment as required. No special handling advices are necessary.



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### Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers.

### Specific end use(s)

For research use only.

## Section 8. Exposure Controls/Personal Protection

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### Control parameters

**Exposure Limits** Contains no substances with occupational exposure limit values.

**Engineering Measures** Ensure adequate ventilation, especially in confined areas.

### Exposure controls

#### Personal Protective Equipment

**Respiratory protection** In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards.

**Hand protection** Wear suitable gloves. Glove material: Compatible chemical-resistant gloves.

**Eye protection** Tight sealing safety goggles.

**Skin and Body Protection** Wear suitable protective clothing.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice

#### Environmental exposure controls

No special environmental precautions required.

## Section 9. Physical and Chemical Properties

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### Information on basic physical and chemical properties

<b>Appearance</b>	solid
<b>Odor</b>	No data
<b>Odor Threshold</b>	No data
<b>Molecular Weight</b>	No data
<b>Melting point / melting range</b>	°C No data
<b>Boiling point / boiling range</b>	°C No data
<b>Flash point</b>	°C No data
<b>Autoignition Temperature</b>	°C No data
<b>Decomposition temperature</b>	°C No data
<b>Evaporation rate</b>	No data
<b>Flammability (solid, gas)</b>	No data
<b>Upper explosion limit</b>	No data
<b>Lower explosion limit</b>	No data

<b>Vapor Pressure</b>	No data
<b>Vapor density</b>	No data
<b>Relative density</b>	No data
<b>Specific gravity</b>	No data
<b>Solubility</b>	No data
<b>Partition coefficient:</b>	
<b>n-octanol/water</b>	No data
<b>Viscosity</b>	No data
<b>Explosive properties</b>	No data
<b>Oxidizing properties</b>	No data
<b>Other information</b>	No data.

## **Section 10. Stability and Reactivity**

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<b>Reactivity</b>	None known.
<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Hazardous reaction has not been reported.
<b>Conditions to avoid</b>	No information available.
<b>Incompatible materials</b>	No dangerous reaction known under conditions of normal use.
<b>Hazardous decomposition products</b>	No data available

## **Section 11. Toxicological information**

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### **Information on toxicological effects**

There is no evidence available indicating acute toxicity.

### **Principal Routes of Exposure**

<b>Acute toxicity</b>	Data are conclusive but insufficient for classification.
<b>Skin corrosion/irritation</b>	Data are conclusive but insufficient for classification
<b>Serious eye damage/irritation</b>	Data are conclusive but insufficient for classification
<b>Respiratory or skin sensitization</b>	Data are conclusive but insufficient for classification
<b>Specific target organ toxicity (STOT)–single exposure</b>	Data are conclusive but insufficient for classification
<b>Specific target organ toxicity (STOT)–repeated exposure</b>	Data are conclusive but insufficient for classification
<b>Carcinogenicity</b>	Data are conclusive but insufficient for classification
<b>Germ cell mutagenicity</b>	Data are conclusive but insufficient for classification
<b>Reproductive toxicity</b>	Data are conclusive but insufficient for classification



Aspiration hazard

Data are conclusive but insufficient for classification

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## Section 12. Ecological Information

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### Ecotoxicity

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

**Mobility in soil** No information available.

**Persistence and degradability** No information available.

**Bioaccumulative potential** No information available.

### Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**Other adverse effects** No information available

## Section 13. Disposal considerations

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### Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in accordance with approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

## Section 14. Transport Information

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### 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

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### US Federal Regulations

#### **SARA 313**

This product is not regulated by SARA.

**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product does not contain HAPs

**US State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**WHMIS Hazard Class**

Non-controlled

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

**National Regulations - Brazil**

Not regulated

**Section 16. Other Information**

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For research use only. Not intended for human or animal diagnostic or therapeutic uses.

The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein.

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**End of Material Safety Data Sheet**