

**Section 1. Chemical Product and Company Identification**

Common Name **Seize™ Primary Mammalian Immunoprecipitation Kit**

Code 0045332

Supplier Pierce Chemical Company  
P.O. Box 117  
Rockford, IL 61105  
USA  
815.968.0747 or  
1.800.874.3723

In Case of Emergency CALL CHEMTREC:  
800.424.9300  
OUTSIDE US:  
202.483.7616

Print Date 7/5/2001

Validation Date **7/5/2001**

MSDS# 3673

Component/Item#	1) AminoLink® Plus Coupling Gel, 2 ml	1858577
	2) AminoLink® Wash Buffer	1855790
	3) BupH Phosphate Buffered Saline Packs	0028372
	4) AminoLink® Quenching Buffer	1851890
	5) Sodium Cyanoborohydride Solution	1856084
	6) ImmunoPure® Lane Marker	0039001
	7) BupH Tris Buffered Saline Packs	0028376
	8) BupH Dulbecco's PBS Buffer Packs	0028374
	9) ImmunoPure® IgG Elution Buffer	1856202
	10) M-PER™ Mammalian Protein Extraction Reagent, 25 mL.	0078503
	11) Handee™ Spin Cup Columns	1889603
	12) Microfuge Collection Tubes	1889479

Manufacturer Pierce Chemical Company  
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Rockford, IL 61105  
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**Section 2. Composition and Information on Hazardous (OSHA) Ingredients**

Name	% by weight (in kit)	Exposure Limits
1) Tris hydrochloride	3-5	Not available.
2) Glycerol (Non-Reducing Lane Marker Sample Buffer)	1-3	TWA: 10 (mg/m <sup>3</sup> ) from ACGIH (TLV) [United States] TWA: 10 (ppb) from ACGIH (TLV) [United States] [1994] Inhalation TWA: 5 (mg/m <sup>3</sup> ) from OSHA (PEL) [United States] [1989] Inhalation Respirable.
3) Tris(hydroxymethyl)aminomethane	3-5	Not available.
4) Sodium Azide	0.02	CEIL: 0.11 (ppm) from ACGIH (TLV) [United States] [1996] Inhalation TWA: 0.1 CEIL: 0.29 (ppb) from ACGIH (TLV) [United States] [1996] Inhalation TWA: 0.3 CEIL: 0.1 (ppm) from NIOSH [United States] [1994] SKIN STEL: 0.3 CEIL: 0.3 (mg/m <sup>3</sup> ) from NIOSH [United States] [1994] SKIN TWA: 0.2 CEIL: 0.1 (ppm) from OSHA (PEL) [United States] [1989] SKIN TWA: 0.3 CEIL: 0.3 (mg/m <sup>3</sup> ) from OSHA (PEL) [United States] [1989] SKIN
5) Sodium Cyanoborohydride (In Sodium Cyanoborohydride Solution)	20-40 per solution	Not available.

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### Section 3. Hazards Identification

Review the most current and approved institutional guideline, protocol, standard operating procedure(s) and MSDS(s) for the proper handling of institutional materials/equipment associated with the use of this Pierce product.

#### Emergency Overview

*Routes of Entry* Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.

*Potential Acute Health Effects* Slightly hazardous in case of ingestion, of inhalation.

*Carcinogenic Effects Data* **CARCINOGENIC EFFECTS:** Classified None. by NIOSH [SODIUM PHOSPHATE, DIBASIC]. Classified None. by NIOSH [SDS]. Classified None. by NIOSH [Glycerol].  
**MUTAGENIC EFFECTS:** Not available.  
**TERATOGENIC EFFECTS:** Classified None. for human [SDS].

*Medical Conditions Aggravated by Overexposure:* Repeated or prolonged exposure is not known to aggravate medical condition.

See Toxicological Information (section 11)

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### Section 4. First Aid Measures

SKIN: Wash contaminated skin with soap and water.

EYES: Flush with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek medical attention.

Inhalation: Move exposed person to fresh air. If irritation persists, get medical attention.

Ingestion: Do not induce vomiting. If affected person is conscious, give plenty of water to drink. Seek medical attention.

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### Section 5. Fire Fighting Measures

*Flammability of the Product* May be combustible at high temperature.

<i>Flash Points</i>	1) AminoLink® Plus Coupling Gel, 2 ml	Not applicable.
	2) AminoLink® Wash Buffer	Not available.
	3) BupH Phosphate Buffered Saline Packs	Not available.
	4) AminoLink® Quenching Buffer	Not available.
	5) Sodium Cyanoborohydride Solution	Not available.
	6) ImmunoPure® Lane Marker	The lowest known value is CLOSED CUP: 160°C (320°F). OPEN CUP: 177°C (350.6°F). (Glycerol)
	7) BupH Tris Buffered Saline Packs	Not available.
	8) BupH Dulbecco's PBS Buffer Packs	Not applicable.
	9) ImmunoPure® IgG Elution Buffer	Not applicable.
	10) M-PER™ Mammalian Protein Extraction Reagent, 25 mL.	Not available.
	11) Handee™ Spin Cup Columns	Not available.
	12) Microfuge Collection Tubes	Not available.

*Fire Hazards in Presence of Various Substances* Not considered to be flammable.

*Fire Fighting Media and Instructions* SMALL FIRE: Use DRY chemical powder.  
LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

*Protective Clothing (Fire)* Be sure to use an approved/certified respirator or equivalent.

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## **Section 6. Accidental Release Measures**

<i>Small Spill and Leak</i>	1) AminoLink® Plus Coupling Gel, 2 ml	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
	2) AminoLink® Wash Buffer	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
	3) BupH Phosphate Buffered Saline Packs	Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
	4) AminoLink® Quenching Buffer	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
	5) Sodium Cyanoborohydride Solution	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. If necessary: <b>Neutralize the residue with a dilute solution of acetic acid.</b>
	6) ImmunoPure® Lane Marker	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. If necessary: <b>Neutralize the residue with a dilute solution of acetic acid.</b> Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
	7) BupH Tris Buffered Saline Packs	Use appropriate tools to put the spilled solid in a convenient waste disposal container. If necessary: <b>Neutralize the residue with a dilute solution of acetic acid.</b> Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
	8) BupH Dulbecco's PBS Buffer Packs	Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
	9) ImmunoPure® IgG Elution Buffer	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
	10) M-PER™ Mammalian Protein Extraction Reagent, 25 mL.	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
	11) Handee™ Spin Cup Columns	Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
	12) Microfuge Collection Tubes	Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

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## **Section 7. Handling and Storage**

*Handling* Avoid breathing vapors or spray mists.

*Storage* Keep container tightly closed. Keep container in a cool, well-ventilated area.

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## Section 8. Exposure Controls/Personal Protection

**Engineering Controls** Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

**Personal Protection**

**Eyes** Not applicable.

**Body** Lab coat.

**Respiratory** Not applicable.

Protective Clothing  
(Pictograms)



Consult local authorities for acceptable exposure limits.

## Section 9. Physical and Chemical Properties

Component	Physical State and Appearance	Color
1) AminoLink® Plus Coupling Gel, 2 ml	Liquid. (White.)	White.
2) AminoLink Wash Buffer	Liquid.	Not available.
3) BupH Phosphate Buffered Saline Packs	Solid. (Granular solid.)	White.
4) AminoLink Quenching Buffer	Liquid.	Not available.
5) Sodium Cyanoborohydride Solution	Liquid.	Colorless to light yellow.
6) ImmunoPure Lane Marker	Liquid.	Bright pink Clear
7) BupH Tris Buffered Saline Packs	Solid. (Granular solid.)	White. Off-white.
8) BupH Dulbecco's PBS Buffer Packs	Solid. (Granular solid.)	White.
9) ImmunoPure IgG Elution Buffer	Liquid.	Not available.
10) M-PER™ Mammalian Protein Extraction Reagent, 25 mL.	Liquid.	Not available.
11) Handee™ Spin Cup Columns	Solid. (Tubes)	Not available.
12) Microfuge Collection Tubes	Solid. (Tubes)	Not available.

## Section 10. Stability and Reactivity

**Stability and Reactivity** The product is stable.

**Conditions of Instability** Keep away from heat and direct sunlight. (M-PER Component 1)

**Incompatibility with Various Substances** Slightly reactive to reactive with oxidizing agents, metals, acids, alkalis.

**Hazardous Decomposition Products**

## Section 11. Toxicological Information

Toxicity to Animals	LD50: Not available.
1) AminoLink® Plus Coupling Gel, 2 ml	LD50: Not available.
2) AminoLink® Wash Buffer	LC50: Not available.
3) BupH Phosphate Buffered Saline Packs	LD50: Not available.
4) AminoLink® Quenching Buffer	LC50: Not available.
5) Sodium Cyanoborohydride Solution	Acute oral toxicity (LD50): 1500 mg/kg [Mouse]. (Phosphate Buffered Saline Pack Component 1).
6) ImmunoPure® Lane Marker	Acute oral toxicity (LD50): 151 mg/kg [Mouse]. (Hydrochloric Acid ).
7) BupH Tris Buffered Saline Packs	Acute oral toxicity (LD50): 500 mg/kg [Rabbit]. (Sodium Hydroxide).
8) BupH Dulbecco's PBS Buffer Packs	Acute oral toxicity (LD50): 1288 mg/kg [Rat]. (SDS).
9) ImmunoPure® IgG Elution Buffer	Acute oral toxicity (LD50): 4000 mg/kg [Mouse]. (Sodium Chloride).
10) M-PER™ Mammalian Protein Extraction Reagent, 25 mL.	Chronic oral toxicity (LD50): 3000 mg/kg [Rat]. (Sodium Chloride).
11) Handee™ Spin Cup Columns	Acute dermal toxicity (LD50): 10000 mg/kg [Rabbit]. (Sodium Chloride).
12) Microfuge Collection Tubes	LD50: Not available.
	LC50: Not available.
	LD50: Not available.
	LC50: Not available.
	LD50: Not available.
	LC50: Not available.
	LD50: Not available.
	LC50: Not available.
	LD50: Not available.
	LC50: Not available.
	LD50: Not available.
	LC50: Not available.

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*Chronic Effects on Humans* **CARCINOGENIC EFFECTS:** Classified None. by NIOSH [SODIUM PHOSPHATE, DIBASIC]. Classified None. by NIOSH [SDS]. Classified None. by NIOSH [Glycerol].

**TERATOGENIC EFFECTS:** Classified None. for human [SDS].

*Other Toxic Effects on Humans* Slightly hazardous in case of ingestion, of inhalation.

*Special Remarks on Other Toxic Effects on Humans* To the best of our knowledge, the toxicological properties of this product have not been thoroughly investigated. (Tris(hydroxymethyl)aminomethane)

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## Section 12. Ecological Information

<i>Toxicity of the Products of Biodegradation</i>	1) AminoLink® Plus Coupling Gel, 2 ml	Not available.
	2) AminoLink® Wash Buffer	Not available.
	3) BupH Phosphate Buffered Saline Packs	The product itself and its products of degradation are not toxic.
	4) AminoLink® Quenching Buffer	The products of degradation are less toxic than the product itself.
	5) Sodium Cyanoborohydride Solution	The products of degradation are less toxic than the product itself.
	6) ImmunoPure® Lane Marker	The product itself and its products of degradation are not toxic.
	7) BupH Tris Buffered Saline Packs	The products of degradation are more toxic than the product itself.
	8) BupH Dulbecco's PBS Buffer Packs	Not available.
	9) ImmunoPure® IgG Elution Buffer	The product itself and its products of degradation are not toxic.
	10) M-PER™ Mammalian Protein Extraction Reagent, 25 mL.	The product itself and its products of degradation are not toxic.
	11) Handee™ Spin Cup Columns	Not available.
	12) Microfuge Collection Tubes	Not available.

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## Section 13. Disposal Considerations

*Waste Information* Waste must be disposed of in accordance with federal, state and local environmental control regulations.

*Waste Stream* Not available.

*Consult your local or regional authorities.*

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## Section 14. Transport Information

*Contact Pierce for all transport information.*

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## Section 15. Regulatory Information

*HCS Classification* **CLASS: Toxic. (Sodium Cyanoborohydride Solution)**  
**CLASS: Target organ effects.**

*U.S. Federal Regulations* TSCA 8(b) inventory: Sepharose 4 Fast Flow; Sodium Azide; Sodium Chloride; Phosphate Buffered Saline Pack Component 1; SODIUM PHOSPHATE, DIBASIC; Tris(hydroxymethyl)aminomethane; Sodium Cyanoborohydride; Sodium Hydroxide; SDS; Glycerol; Pierce Tracking Dye; Tris hydrochloride; Sodium Chloride; Elution Buffer Ingredient 2; Strong base; Bicine  
TSCA 8(d) H and S data reporting: Sodium Azide; Sodium Hydroxide; SDS; Glycerol  
SARA 302/304/311/312 extremely hazardous substances: Sodium Azide  
SARA 302/304 emergency planning and notification: Sodium Azide  
SARA 302/304/311/312 hazardous chemicals: Sodium Azide; Sodium Chloride; Phosphate Buffered Saline Pack Component 1; SODIUM PHOSPHATE, DIBASIC; Sodium Hydroxide; SDS; Glycerol; Strong base  
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Sodium Azide: immediate health hazard; Sodium Chloride: immediate health hazard, delayed health hazard; Phosphate Buffered Saline Pack Component 1: immediate health hazard, delayed health hazard; SODIUM PHOSPHATE, DIBASIC: immediate health hazard; Sodium Hydroxide: immediate health hazard; SDS: immediate health hazard, delayed health hazard; Glycerol: immediate health hazard, delayed health hazard; Strong base: immediate health hazard

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: Sodium Hydroxide; Strong base

Clean air act (CAA) 112 accidental release prevention: No products were found.

Clean air act (CAA) 112 regulated flammable substances: No products were found.

Clean air act (CAA) 112 regulated toxic substances: No products were found.

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**Seize™ Primary Mammalian Immunoprecipitation Kit**

WHMIS (Canada) CLASS D-2A: Material causing other toxic effects (VERY TOXIC).

CEPA DSL: Sodium Azide; Sodium Chloride; Phosphate Buffered Saline Pack Component 1; Tris(hydroxymethyl)aminomethane; Sodium Hydroxide; SDS; Glycerol; Pierce Tracking Dye; Tris hydrochloride; Elution Buffer Ingredient 2; Strong base

CEPA NDSL: Sodium Azide; Sodium Cyanoborohydride; Bicine

*International Regulations*

EINECS Not available.

DSCL (EEC) This product is not classified according to the EU regulations.

International Lists Australia (NICNAS): Sodium Azide; Sodium Chloride; Phosphate Buffered Saline Pack Component 1; SODIUM PHOSPHATE, DIBASIC; Tris(hydroxymethyl)aminomethane; Sodium Cyanoborohydride; Sodium Hydroxide; SDS; Glycerol; Pierce Tracking Dye; Milli-Q Water; Tris hydrochloride; Strong base; Bicine

Germany water class: SODIUM PHOSPHATE, DIBASIC; Glycerol

Korea (TCCL): Sodium Azide; Sodium Chloride; Phosphate Buffered Saline Pack Component 1; SODIUM PHOSPHATE, DIBASIC; Tris(hydroxymethyl)aminomethane; Sodium Hydroxide; SDS; Glycerol; Pierce Tracking Dye; Milli-Q Water; Tris hydrochloride; Strong base

Philippines (RA6969): Sodium Azide; Sodium Chloride; Phosphate Buffered Saline Pack Component 1; SODIUM PHOSPHATE, DIBASIC; Tris(hydroxymethyl)aminomethane; Sodium Cyanoborohydride; Sodium Hydroxide; SDS; Glycerol; Milli-Q Water; Tris hydrochloride; Strong base; Bicine

State Regulations Pennsylvania RTK: Sodium Azide: (environmental hazard, generic environmental hazard); SODIUM PHOSPHATE, DIBASIC: (environmental hazard, generic environmental hazard); Sodium Hydroxide: (environmental hazard, generic environmental hazard); Glycerol: (generic environmental hazard); Strong base: (environmental hazard, generic environmental hazard)

Florida: Sodium Azide

Minnesota: Sodium Azide

Massachusetts RTK: Sodium Azide; SODIUM PHOSPHATE, DIBASIC; Sodium Hydroxide; Glycerol; Strong base

New Jersey: Sodium Azide; SODIUM PHOSPHATE, DIBASIC; Sodium Hydroxide; Strong base

California prop. 65: No products were found.

**Section 16. Other Information**

Hazardous Material Information System (U.S.A.)

Health	*	2
Fire Hazard		1
Reactivity		1
Personal Protection		a

National Fire Protection Association (U.S.A.)



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