PIERCE
a Perbio Science Company

Eng

Material Safety Data Sheet

Conforms to 93/112/EC and ISO 11014-1

Responsible Name **Pierce Administration**

Section 1. Chemical Product and Company Identification

Product name **Goat Anti-Human IgG Sensitized Beads (gamma heavy chain specific)**

Product No. 1859418

Supplier

In USA:
Pierce
P.O. Box 117
Rockford, IL 61105
USA
815.968.0747 or
1.800.874.3723

In Europe:
Perbio Science
Industriezone III
Industrielaan 27
9320 Erembodegem-Aalst
Belgium
Tel:+32 53 83 44 04
Fax:+32 53 83 76 38

Manufacturer

Pierce Biotechnology
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 7/2/2004
Validation Date **7/2/2004**
MSDS# 7162

Intended Use Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific applications.

Section 2. Composition, Information on Ingredients

Substance/Preparation : Preparation

Ingredient Name	CAS No.	%	EC Number	Symbol	R-Phrases
1) Sodium Phosphate, Monobasic	10049-21-5	1-3	Not available.	Xi	R36/37/38

Section 3. Hazards Identification

United States

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 product.

Emergency Overview

WARNING!
CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS:
MUCOUS MEMBRANES, RESPIRATORY TRACT, SKIN, EYES, STOMACH.

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

Potential Acute Health Effects Slightly hazardous in case of ingestion, of inhalation (lung corrosive).

Carcinogenic Effects Data

CARCINOGENIC EFFECTS: Not available.
MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Not available.

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

Overexposure /Signs/Symptoms Not available.

Europe

Classification **Not controlled under dsd (Europe).**

Physical/chemical hazards Not applicable.

Human health hazards Not applicable.

Environmental hazards Not applicable.

See Toxicological Information (section 11)

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Section 4. First Aid Measures

Notice to Reader **Get immediate medical attention.**

Effects and symptoms

Inhalation Slightly hazardous in case of inhalation (lung corrosive).

Ingestion Slightly hazardous in case of ingestion.

Skin Contact Irritation of the product in case of skin contact: Not available. Sensitization of the product: Not available.

Eye Contact Not available.

Aggravating conditions Repeated or prolonged exposure is not known to aggravate medical condition.

First-Aid Measures

Inhalation If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin Contact In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Cold water may be used.Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

Eye Contact Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

Notes to Physician Not available.

Protection of first-aiders Not available.

Section 5. Fire Fighting Measures

Flammability of the Product Non-flammable.

Flash Points Not applicable.

Fire Hazards in Presence of Various Substances Not applicable.

Fire Fighting Media and Instructions Not applicable.

Protective Clothing (Fire) Not applicable.

Hazardous thermal (de)composition products Not applicable.

Section 6. Accidental Release Measures

Personal precautions Safety glasses. Lab coat. Gloves.

Environmental Precautions and Clean-up Methods Absorb with an inert material and put the spilled material in an appropriate waste disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Small Spill and Leak 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.

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. Store between 2 to 8°C (35.6 to 46.4°F).

Intended Use Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific applications.

Packaging materials

Suitable / Not suitable Use original container.

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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.

Exposure Limit Values

Ingredient Name	Occupational Exposure Limits
United States	
1) Sodium Phosphate, Monobasic	Not available.
2) Sodium Azide	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^3) 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^3) from OSHA (PEL) [United States] [1989] SKIN
Sweden	
1) Sodium Phosphate, Monobasic	Not available.
Denmark	
1) Sodium Phosphate, Monobasic	Not available.
Norway	
1) Sodium Phosphate, Monobasic	Not available.
France	
1) Sodium Phosphate, Monobasic	Not available.
Netherlands	
1) Sodium Phosphate, Monobasic	Not available.
Germany	
1) Sodium Phosphate, Monobasic	Not available.

Personal Protection

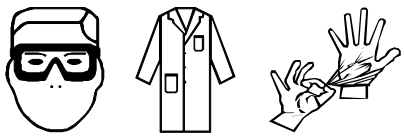
Eyes Splash goggles.

Body Lab coat.

Hands Gloves.

Respiratory Respirator is not needed under normal and intended conditions of use, if exposures are kept below established limits.

Protective Clothing (Pictograms)



Section 9. Physical and Chemical Properties

Physical State and Appearance Liquid. (Suspension.)

Odor Not available.

Molecular Weight Not applicable.

Taste Not available.

pH (1% Soln/Water) 7.4 [Neutral.]

Color White to yellowish.

Boiling/Condensation Point The lowest known value is 100°C (212°F) (Water).

Melting/Freezing Point May start to solidify at 0°C (32°F) based on data for: Water.

Specific Gravity The only known value is 1 (Water = 1) (Water).

Vapor Pressure The highest known value is 2.3 kPa (@ 20°C) (Water).

Vapor Density The highest known value is 0.62 (Air = 1) (Water).

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Evaporation Rate 0.36 (Water) compared to Butyl acetate.

$LogK_{ow}$ The product is much more soluble in water.

Dispersion Properties Dispersed in cold water, hot water, methanol, diethyl ether, n-octanol, acetone.

Solubility Not applicable.

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.

Conditions to avoid Sodium azide may react with lead or copper plumbing to form highly explosive metal azides. (Sodium Azide)

Materials to avoid Slightly reactive to reactive with acids.
Non-reactive with metals.

Hazardous Polymerization Will not occur.

Hazardous Decomposition Products Not applicable.

Section 11. Toxicological Information

Toxicity to Animals

BSA
LD50: Not available.
LC50: Not available.
Sodium Azide:
ORAL (LD50): Acute: 27 mg/kg [Rat]. 27 mg/kg [Mouse].
DERMAL (LD50): Acute: 20 mg/kg [Rabbit].
Sodium Phosphate, Monobasic
LD50: Not available.
LC50: Not available.
Water:
ORAL (LD50): Acute: >90000 mg/kg [Rat].
Sodium Chloride:
ORAL (LD50): Acute: 3750 mg/kg [Rat].
Polystyrene Beads
LD50: Not available.
LC50: Not available.

Chronic Effects on Humans Not available.

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

Special Remarks on Toxicity to Animals Not available.

Special Remarks on Chronic Effects on Humans There are no known hazards associated with this product. (Polystyrene Beads)

Special Remarks on Other Toxic Effects on Humans There are no known hazards associated with this product. (Polystyrene Beads)

Section 12. Ecological Information

Mobility Not available.

Persistence/degradability Not available.

Bioaccumulative potential Not available.

Ecotoxicity Not available.

Germany water class VCI WGK: No products were found.

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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.

Section 14. Transport Information

Contact the supplier for all information regarding the proper transportation method for this material.

Section 15. Regulatory Information

Label Requirements (Europe)

This product is not classified according to the EU regulations.

HCS Classification **Target organ effects.**

U.S. Federal Regulations

TSCA 8(b) inventory: BSA; Sodium Azide; Water; Sodium Chloride
TSCA 8(d) H and S data reporting: Sodium Azide
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
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Sodium Azide: immediate health hazard; Sodium Chloride: immediate health hazard, delayed health hazard

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

Clean Water Act (CWA) 311: No products were found.

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.

WHMIS (Canada) Not controlled under WHMIS (Canada).

CEPA DSL: BSA; Sodium Azide; Water; Sodium Chloride

CEPA NDSL: Sodium Azide

International Regulations

EINECS Not available.

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

International Lists Australia (NICNAS): BSA; Sodium Azide; Sodium Phosphate, Monobasic; Water; Sodium Chloride

Germany water class: Sodium Azide

VCI WGK: No products were found.

Korea (TCCL): Sodium Azide; Water; Sodium Chloride

Philippines (RA6969): BSA; Sodium Azide; Water; Sodium Chloride

State Regulations Pennsylvania RTK: Sodium Azide: (environmental hazard, generic environmental hazard)
Florida: Sodium Azide
Minnesota: Sodium Azide
Massachusetts RTK: Sodium Azide
New Jersey: Sodium Azide
California prop. 65: No products were found.

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Section 16. Other Information

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

Health	*	1
Fire Hazard		0
Reactivity		0
Personal Protection		g

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

References Not available.

History of Document Changes Any information changes since last document version are marked with a triangle symbol.

Full text of R-Phrases referenced under headings 2 and 3: Irritating to eyes, respiratory system and skin.

Intended Use Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific applications.

Validated by Pierce Administration on 7/2/2004.

Verified by Pierce Administration.

Date of Previous Issue No Previous Validation

Printed 7/2/2004. **Version** 1

Notice to Reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.