

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

Responsible Name Pierce Administration

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

Product name **MagnaBind™ Carboxyl Derivatized Beads**

Product No. 0021353

Supplier	<i>In USA:</i>	<i>In Europe:</i>	Manufacturer	Pierce Biotechnology
	Pierce	Perbio Science		P.O. Box 117
	P.O. Box 117	Industriezone III		Rockford, IL 61105
	Rockford, IL 61105	Industrielaan 27		USA
	USA	9320 Erembodegem-Aalst		815.968.0747 or
	815.968.0747 or	Belgium		1.800.874.3723
	1.800.874.3723	Tel:+32 53 83 44 04		
		Fax:+32 53 83 76 38		

In Case of Emergency CALL CHEMTREC:

800.424.9300
OUTSIDE US:
202.483.7616

Print Date 1/21/2004

Validation Date **1/21/2004**

MSDS# 7097

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) Iron oxide	111213-96-8	7-10	Not available.	Xi	R36/37
2) Sodium Azide	26628-22-8	0-0.1	247-852-1	T+, N	R28, R32, R50/53
3) Ethylenediamine Tetraacetic Acid, Disodium Salt	6381-92-6	0.1-1	Not available.	Xn	R22, 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:
KIDNEYS, NERVOUS SYSTEM, MUCOUS MEMBRANES, HEART, BRAIN,
CARDIOVASCULAR SYSTEM, RESPIRATORY TRACT, SKIN, EYES, CENTRAL
NERVOUS SYSTEM, EYE, LENS OR CORNEA.
MAY BE HARMFUL IF SWALLOWED.
CONTAINS MATERIAL WHICH MAY CAUSE DAMAGE TO THE FOLLOWING
ORGANS: LUNGS.
Do not ingest. Wash thoroughly after handling.

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

Potential Acute Health Effects Hazardous in case of ingestion, of inhalation.

Carcinogenic Effects Data **CARCINOGENIC EFFECTS:** Classified 3 (Not classifiable for human.) by IARC [Iron oxide]. Classified None. by NIOSH [Sodium Azide]. Classified A4 (Not classifiable for human or animal.) by ACGIH [Sodium Azide].
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 R22
Physical/chemical hazards Not applicable.

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Human health hazards Harmful if ingested.
Environmental hazards Not applicable.

See Toxicological Information (section 11)

+ Section 4. First Aid Measures

Notice to Reader Get immediate medical attention.

Effects and symptoms

Inhalation Hazardous in case of inhalation.

Ingestion 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. 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. Get medical attention.

Notes to Physician Not available.

Protection of first-aiders Not available.

🔥 Section 5. Fire Fighting Measures

Flammability of the Product May be combustible at high temperature.

Flash Points Not available.

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

Fire Fighting Media SMALL FIRE: Use DRY chemical powder.

and Instructions 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.

Hazardous thermal (de)composition products These products are carbon oxides (CO, CO₂), nitrogen oxides (NO, NO₂...). Some metallic oxides.

Section 6. Accidental Release Measures

Personal precautions Safety glasses. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent.

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. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Small Spill and Leak Absorb with an inert material and put the spilled material in an appropriate waste disposal.

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Section 7. Handling and Storage

Handling Do not ingest. Wash thoroughly after handling.

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

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.

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.

Exposure Limit Values

<u>Ingredient Name</u>	<u>Occupational Exposure Limits</u>
United States	
1) Iron oxide	TWA: 5 (mg/m ³) from ACGIH (TLV) [United States] [1997] TWA: 15 (ppb) from OSHA (PEL) [United States]
2) EDTA	Not available.
3) Sodium Azide	CEIL: 0.11 (ppm) from ACGIH (TLV) [United States] [2000] Inhalation TWA: 0.1 CEIL: 0.1 (ppb) from OSHA (PEL) [United States] [1989] SKIN TWA: 0.3 CEIL: 0.1 (ppm) from NIOSH [United States] [1994] SKIN
Sweden	
1) Iron oxide	Not available.
2) Sodium Azide	Not available.
3) Ethylenediamine Tetraacetic Acid, Disodium Salt	Not available.
Denmark	
1) Iron oxide	Not available.
2) Sodium Azide	TWA: 0.3 CEIL: 0.3 (mg/m ³) from Arbejdstilsynet [Denmark] [1996] Inhalation
3) Ethylenediamine Tetraacetic Acid, Disodium Salt	Not available.
Norway	
1) Iron oxide	Not available.
2) Sodium Azide	TWA: 0.3 CEIL: 0.3 (mg/m ³) from Arbejdstilsynet [Norway] [1996] Inhalation
3) Ethylenediamine Tetraacetic Acid, Disodium Salt	Not available.
France	
1) Iron oxide	Not available.
2) Sodium Azide	STEL: 0.1 (ppm) from INRS [France] [1999] Inhalation
3) Ethylenediamine Tetraacetic Acid, Disodium Salt	Not available.
Netherlands	
1) Iron oxide	Not available.
2) Sodium Azide	TWA: 0.3 CEIL: 0.1 (ppm) from Arbeidsinspectie [Netherlands] [2000] Inhalation
3) Ethylenediamine Tetraacetic Acid, Disodium Salt	Not available.
Germany	
1) Iron oxide	Not available.
2) Sodium Azide	TWA: 0.2 CEIL: 0.1 (mg/m ³) from BAuA [Germany] [1999] Inhalation
3) Ethylenediamine Tetraacetic Acid, Disodium Salt	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)

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Section 9. Physical and Chemical Properties

Physical State and Appearance Liquid. (Suspension. Hazy liquid which may stratify.)

Odor Odorless.

Molecular Weight Not applicable.

Taste Not available.

pH (1% Soln/Water) Neutral.

Color Brown.

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 Weighted average: 1.1 (Water = 1)

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).

Evaporation Rate 0.36 (Water) compared to Butyl acetate.

Dispersion Properties Is not dispersed in cold water, hot water.

Solubility Insoluble in cold water, hot water.

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.

Conditions to avoid Reacts violently with water especially when water is added to the product. Heating may cause an explosion. Keep away from heat (Sodium Azide)

Materials to avoid Non-reactive with oxidizing agents.

Hazardous Decomposition Products These products are carbon oxides (CO, CO₂), nitrogen oxides (NO, NO₂...). Some metallic oxides.

Section 11. Toxicological Information

Toxicity to Animals Acute oral toxicity (LD₅₀): 2000 mg/kg [Rat]. (Ethylenediamine Tetraacetic Acid, Disodium Salt).

Chronic Effects on Humans **CARCINOGENIC EFFECTS:** Classified 3 (Not classifiable for human.) by IARC [Iron oxide]. Classified None. by NIOSH [Sodium Azide]. Classified A4 (Not classifiable for human or animal.) by ACGIH [Sodium Azide]. Contains material which may cause damage to the following organs: lungs.

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

Special Remarks on Toxicity to Animals Not available.

Special Remarks on Chronic Effects on Humans Not available.

Special Remarks on Other Toxic Effects on Humans Not available.



Section 12. Ecological Information

<i>Mobility</i>	Not available.
<i>Persistence/degradability</i>	Not available.
<i>Bioaccumulative potential</i>	Not available.
<i>Ecotoxicity</i>	Not available.
<i>Germany water class</i>	VCI WGK: No products were found.



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)

R22- Harmful if swallowed.

S2- Keep out of the reach of children.

S46- If swallowed, seek medical advice immediately and show this container or label.



Harmful

HCS Classification

Target organ effects.

U.S. Federal Regulations TSCA 8(b) inventory: Water; Iron oxide; Sodium Azide; Ethylenediamine Tetraacetic Acid, Disodium Salt
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
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Sodium Azide: immediate 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) CLASS D-2A: Material causing other toxic effects (VERY TOXIC).

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CEPA DSL: Water; Sodium Azide

CEPA NDSL: Sodium Azide

International Regulations

EINECS Not available.

DSCL (EEC) R22- Harmful if swallowed.

International Lists Australia (NICNAS): Water; Sodium Azide; Ethylenediamine Tetraacetic Acid, Disodium Salt

Germany water class: Sodium Azide; Ethylenediamine Tetraacetic Acid, Disodium Salt

Korea (TCCL): Water; Sodium Azide

Philippines (RA6969): Water; Sodium Azide; Ethylenediamine Tetraacetic Acid, Disodium Salt

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.

Section 16. Other Information

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

Health	*	1
Fire Hazard		1
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 and respiratory system.
 Very toxic if swallowed.
 Contact with acids liberates very toxic gas.
 Harmful if ingested.
 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.

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Verified by Pierce Administration.

Date of Previous Issue No Previous Validation

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Version 0.02

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.