

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

Responsible Name Pierce Administration

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

Product name Reacti-Bind NeutrAvidin Coated Plates With SuperBlock Blocking Buffer (Black)

Product No. 0015117 0015117B

Supplier	<i>In USA:</i> Pierce P.O. Box 117 Rockford, IL 61105 USA 815.968.0747 or 1.800.874.3723	<i>In Europe:</i> Pierbio 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
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In Case of Emergency CALL CHEMTREC:
800.424.9300
OUTSIDE US:
202.483.7616

Print Date 11/14/2002
Validation Date 11/4/2002
MSDS# 2360

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

<u>Ingredient Name</u>	<u>CAS No.</u>	<u>%</u>	<u>EC Number</u>	<u>Symbol</u>	<u>R-Phrases</u>
1) SuperBlock Component 2		0.1-1	Not available.	--	Not controlled under dsd (Europe).
2) SuperBlock Component 3		3-5	Not available.	--	Not controlled under dsd (Europe).
3) SuperBlock Component 4		0.1-1	231-595-7	C	R34
4) SuperBlock Component 5		0.1-1	231-598-3	--	Not controlled under dsd (Europe).
5) SuperBlock Component 6		0.1-1	201-064-4	Xi	R36/37/38
6) Buffer Pack Ingredient 1		0.1-1	205-633-8	--	Not controlled under dsd (Europe).
7) Buffer Pack Ingredient 2		0.1-1	207-838-8	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:
LUNGS, MUCOUS MEMBRANES, RESPIRATORY TRACT, SKIN, EYES, EYE, LENS
OR CORNEA, STOMACH.

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

Potential Acute Health Effects Slightly hazardous in case of skin contact (permeator). Non-corrosive for skin. Non-irritant for skin. Non-irritating to the eyes. Non-hazardous in case of ingestion. Non-hazardous in case of inhalation. Non-irritant for lungs. Non-corrosive to the eyes. Non-corrosive for lungs.

Carcinogenic Effects Data **CARCINOGENIC EFFECTS:** Classified 3 (Not classifiable for human.) by IARC [SuperBlock Component 4]. Classified None. by NIOSH [Buffer Pack Ingredient 1]. Classified None. by NIOSH [Buffer Pack Ingredient 2].
MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Not available.

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

**Reacti-Bind NeutrAvidin Coated Plates
With SuperBlock Blocking Buffer (Black)**

Overexposure /Signs/Symptoms Not available.

Europe

Classification	Not controlled under dsd (Europe).
<i>Physical/chemical hazards</i>	Not applicable.
<i>Human health hazards</i>	Not applicable.
<i>Environmental hazards</i>	Not applicable.

See Toxicological Information (section 11)

+ Section 4. First Aid Measures

Notice to Reader Get immediate medical attention.

Effects and symptoms

<i>Inhalation</i>	Non-hazardous in case of inhalation. Non-irritant for lungs. Non-corrosive for lungs.
<i>Ingestion</i>	Non-hazardous in case of ingestion.
<i>Skin Contact</i>	Sensitization of the product: Not available. Slightly hazardous in case of skin contact (permeator). Non-corrosive for skin. Non-irritant for skin.
<i>Eye Contact</i>	Non-irritating to the eyes. Non-corrosive to the eyes.
<i>Aggravating conditions</i>	Repeated or prolonged exposure is not known to aggravate medical condition.

First-Aid Measures

<i>Inhalation</i>	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear.
<i>Ingestion</i>	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.
<i>Skin Contact</i>	Wash with soap and water. Get medical attention if irritation develops. Cold water may be used.
<i>Eye Contact</i>	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 if irritation occurs.
<i>Notes to Physician</i>	Not available.
<i>Protection of first-aiders</i>	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 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.

Special Remarks on Fire Hazards Non combustible. (SuperBlock Component 4)

Hazardous thermal (de)composition products These products are carbon oxides (CO, CO₂).

Section 6. Accidental Release Measures

Personal precautions Safety glasses. Lab coat.

Environmental Precautions and Clean-up Methods Absorb with an inert material and put the spilled material in an appropriate waste disposal. **Neutralize the residue with a dilute solution of sodium carbonate.** 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 Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. If necessary: **Neutralize the residue with a dilute solution of sodium carbonate.** 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.

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

Ingredient Name

Occupational Exposure Limits

United States

Sweden

1) SuperBlock Component 2	Not available.
2) SuperBlock Component 3	Not available.
3) SuperBlock Component 4	STEL: 5 (ppm) from AFS [Sweden] [1996] Inhalation
4) SuperBlock Component 5	Not available.
5) SuperBlock Component 6	Not available.
6) Buffer Pack Ingredient 1	Not available.
7) Buffer Pack Ingredient 2	Not available.

Denmark

1) SuperBlock Component 2	Not available.
2) SuperBlock Component 3	Not available.
3) SuperBlock Component 4	CEIL: 5 (ppm) from Arbejdstilsynet [Denmark] [1996] Inhalation
4) SuperBlock Component 5	Not available.
5) SuperBlock Component 6	Not available.
6) Buffer Pack Ingredient 1	Not available.
7) Buffer Pack Ingredient 2	Not available.

Norway

1) SuperBlock Component 2	Not available.
2) SuperBlock Component 3	Not available.
3) SuperBlock Component 4	CEIL: 5 (ppm) from Arbejdstilsynet [Norway] [1996] Inhalation
4) SuperBlock Component 5	Not available.
5) SuperBlock Component 6	Not available.
6) Buffer Pack Ingredient 1	Not available.
7) Buffer Pack Ingredient 2	Not available.

France

**Reacti-Bind NeutrAvidin Coated Plates
With SuperBlock Blocking Buffer (Black)**

1) SuperBlock Component 2	Not available.
2) SuperBlock Component 3	Not available.
3) SuperBlock Component 4	STEL: 5 (ppm) from INRS [France] [1999] Inhalation
4) SuperBlock Component 5	Not available.
5) SuperBlock Component 6	Not available.
6) Buffer Pack Ingredient 1	Not available.
7) Buffer Pack Ingredient 2	Not available.

Netherlands

1) SuperBlock Component 2	Not available.
2) SuperBlock Component 3	Not available.
3) SuperBlock Component 4	Not available.
4) SuperBlock Component 5	Not available.
5) SuperBlock Component 6	Not available.
6) Buffer Pack Ingredient 1	Not available.
7) Buffer Pack Ingredient 2	Not available.

Germany

1) SuperBlock Component 2	Not available.
2) SuperBlock Component 3	Not available.
3) SuperBlock Component 4	TWA: 8 CEIL: 8 (mg/m ³) from BAuA [Germany] [1999] Inhalation
4) SuperBlock Component 5	Not available.
5) SuperBlock Component 6	Not available.
6) Buffer Pack Ingredient 1	Not available.
7) Buffer Pack Ingredient 2	Not available.

Personal Protection

Eyes Safety glasses.

Body Lab coat.

Protective Clothing
(Pictograms)



Section 9. Physical and Chemical Properties

Physical State and Appearance Liquid. (Coating.)

Odor Not available.

Molecular Weight Not applicable.

Taste Not available.

pH (1% Soln/Water) Acidic.

Color Not available.

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

Melting/Freezing Point May start to solidify at -0.1°C (31.8°F) based on data for: Milli-Q Water.

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

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

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

Volatility <7% (w/w). (SuperBlock Component 2.)

Evaporation Rate 0.36 (Milli-Q Water) compared to Butyl acetate.

VOC 7 (%)

Dispersion Properties See solubility in water, methanol, acetone.

Solubility Soluble in methanol.
Partially soluble in cold water, hot water, acetone.

 **Section 10. Stability and Reactivity**

- Stability and Reactivity* The product is stable.
- Conditions to avoid* Not available.
- Materials to avoid* Reactive with alkalis.
Slightly reactive to reactive with metals.
- Hazardous Polymerization* Non-reactive with oxidizing agents, acids.
Will not occur.
- Hazardous Decomposition Products* These products are carbon oxides (CO, CO₂).

 **Section 11. Toxicological Information**

- Toxicity to Animals* LD50: Not available.
LC50: Not available.
- Chronic Effects on Humans* **CARCINOGENIC EFFECTS:** Classified 3 (Not classifiable for human.) by IARC [SuperBlock Component 4]. Classified None. by NIOSH [Buffer Pack Ingredient 1]. Classified None. by NIOSH [Buffer Pack Ingredient 2].
- Other Toxic Effects on Humans* Non-irritating to the eyes. Non-hazardous in case of ingestion. Non-hazardous in case of inhalation. Non-irritant for lungs. Non-sensitizer for lungs. Non-corrosive for lungs.
- 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* Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract. (SuperBlock Component 4)

 **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.

 **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

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U.S. Federal Regulations TSCA 8(b) inventory: 5-Chloro-2-methyl-4-isothiazolin-3-one; 2-Methyl-4-isthiazoline-3-one; Magnesium Chloride; Magnesium Nitrate; Water; Milli-Q Water; SuperBlock Component 2; SuperBlock Component 4; SuperBlock Component 5; SuperBlock Component 6; Buffer Pack Ingredient 1; Buffer Pack Ingredient 2
TSCA 8(d) H and S data reporting: SuperBlock Component 4; Buffer Pack Ingredient 1
SARA 302/304/311/312 extremely hazardous substances: SuperBlock Component 4
SARA 302/304 emergency planning and notification: SuperBlock Component 4
SARA 302/304/311/312 hazardous chemicals: Magnesium Nitrate; SuperBlock Component 4; SuperBlock Component 5; Buffer Pack Ingredient 2
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Magnesium Nitrate: fire; SuperBlock Component 4: immediate health hazard, delayed health hazard; SuperBlock Component 5: immediate health hazard, delayed health hazard; Buffer Pack Ingredient 2: immediate health hazard, delayed health hazard

Clean Water Act (CWA) 307: No products were found.
Clean Water Act (CWA) 311: SuperBlock Component 4
Clean air act (CAA) 112 accidental release prevention: SuperBlock Component 4
Clean air act (CAA) 112 regulated flammable substances: No products were found.
Clean air act (CAA) 112 regulated toxic substances: SuperBlock Component 4

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

CEPA DSL: 5-Chloro-2-methyl-4-isothiazolin-3-one; 2-Methyl-4-isthiazoline-3-one; Magnesium Chloride; Magnesium Nitrate; Water; Milli-Q Water; SuperBlock Component 2; SuperBlock Component 4; SuperBlock Component 5; SuperBlock Component 6; Buffer Pack Ingredient 1; Buffer Pack Ingredient 2

International Regulations

EINECS Not available.

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

International Lists Australia (NICNAS): 5-Chloro-2-methyl-4-isothiazolin-3-one; 2-Methyl-4-isthiazoline-3-one; Magnesium Chloride; Magnesium Nitrate; Water; Milli-Q Water; SuperBlock Component 4; SuperBlock Component 5; SuperBlock Component 6; Buffer Pack Ingredient 1; Buffer Pack Ingredient 2

Germany water class: Buffer Pack Ingredient 1; Buffer Pack Ingredient 2

Korea (TCCL): 5-Chloro-2-methyl-4-isothiazolin-3-one; 2-Methyl-4-isthiazoline-3-one; Magnesium Chloride; Magnesium Nitrate; Water; Milli-Q Water; SuperBlock Component 4; SuperBlock Component 5; SuperBlock Component 6; Buffer Pack Ingredient 1; Buffer Pack Ingredient 2

Philippines (RA6969): 5-Chloro-2-methyl-4-isothiazolin-3-one; 2-Methyl-4-isthiazoline-3-one; Magnesium Chloride; Magnesium Nitrate; Water; Milli-Q Water; SuperBlock Component 4; SuperBlock Component 5; SuperBlock Component 6; Buffer Pack Ingredient 1; Buffer Pack Ingredient 2

State Regulations Pennsylvania RTK: Magnesium Nitrate: (generic environmental hazard); SuperBlock Component 4: (environmental hazard, generic environmental hazard)
Massachusetts RTK: Magnesium Nitrate; SuperBlock Component 4
New Jersey: Magnesium Nitrate; SuperBlock Component 4
California prop. 65: No products were found.

Section 16. Other Information

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

Health	*	0
Fire Hazard		0
Reactivity		0
Personal Protection		a

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



References Not available.

Continued on Next Page

**Reacti-Bind NeutrAvidin Coated Plates
With SuperBlock Blocking Buffer (Black)**

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:*
Not applicable.
Not applicable.
Causes burns.
Not applicable.
Irritating to eyes, respiratory system and skin.
Not applicable.
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 11/4/2002.

Verified by Pierce Administration.

**Date of Previous Issue No Previous
Validation**

Printed 11/14/2002.

Version

0.01

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.