

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

Responsible Name Pierce Administration

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

Product name Reacti-Bind Streptavidin Coated White 384-Well Plates With SuperBlock Blocking Buffer (White)

Product No. 0015406 0015406B

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 11/14/2002
Validation Date 11/4/2002
MSDS# 3401

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 (PBS) Blocking Buffer Component 1		0.1-1	Not available.	Xi	R36/37/38
2) SuperBlock (PBS) Blocking Buffer Component 2		0.1-1	231-448-7	Xi	R36/37/38
3) SuperBlock (PBS) Blocking Buffer Component 4		3-5	Not available.	--	Not controlled under dsd (Europe).
4) SuperBlock (PBS) Blocking Buffer Component 5		0.1-1	Not available.	--	Not controlled under dsd (Europe).
5) Buffer Pack Ingredient 1		0.1-1	205-633-8	--	Not controlled under dsd (Europe).
6) 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:
MUCOUS MEMBRANES, RESPIRATORY TRACT, SKIN, EYES.

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

Potential Acute Health Effects 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 None. by NIOSH [SuperBlock (PBS) Blocking Buffer Component 2]. 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.

Overexposure /Signs/Symptoms Not available.

Europe

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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. 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.

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. 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.

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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. 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 (PBS) Blocking Buffer Component 1	Not available.
2) SuperBlock (PBS) Blocking Buffer Component 2	Not available.
3) SuperBlock (PBS) Blocking Buffer Component 4	Not available.
4) SuperBlock (PBS) Blocking Buffer Component 5	Not available.
5) Buffer Pack Ingredient 1	Not available.
6) Buffer Pack Ingredient 2	Not available.

Denmark

1) SuperBlock (PBS) Blocking Buffer Component 1	Not available.
2) SuperBlock (PBS) Blocking Buffer Component 2	Not available.
3) SuperBlock (PBS) Blocking Buffer Component 4	Not available.
4) SuperBlock (PBS) Blocking Buffer Component 5	Not available.
5) Buffer Pack Ingredient 1	Not available.
6) Buffer Pack Ingredient 2	Not available.

Norway

1) SuperBlock (PBS) Blocking Buffer Component 1	Not available.
2) SuperBlock (PBS) Blocking Buffer Component 2	Not available.
3) SuperBlock (PBS) Blocking Buffer Component 4	Not available.
4) SuperBlock (PBS) Blocking Buffer Component 5	Not available.
5) Buffer Pack Ingredient 1	Not available.
6) Buffer Pack Ingredient 2	Not available.

France

1) SuperBlock (PBS) Blocking Buffer Component 1	Not available.
2) SuperBlock (PBS) Blocking Buffer Component 2	Not available.
3) SuperBlock (PBS) Blocking Buffer Component 4	Not available.
4) SuperBlock (PBS) Blocking Buffer Component 5	Not available.
5) Buffer Pack Ingredient 1	Not available.
6) Buffer Pack Ingredient 2	Not available.

Netherlands

1) SuperBlock (PBS) Blocking Buffer Component 1	Not available.
2) SuperBlock (PBS) Blocking Buffer Component 2	Not available.
3) SuperBlock (PBS) Blocking Buffer Component 4	Not available.
4) SuperBlock (PBS) Blocking Buffer Component 5	Not available.
5) Buffer Pack Ingredient 1	Not available.
6) Buffer Pack Ingredient 2	Not available.

Germany

1) SuperBlock (PBS) Blocking Buffer Component 1	Not available.
2) SuperBlock (PBS) Blocking Buffer Component 2	Not available.
3) SuperBlock (PBS) Blocking Buffer Component 4	Not available.
4) SuperBlock (PBS) Blocking Buffer Component 5	Not available.
5) Buffer Pack Ingredient 1	Not available.
6) Buffer Pack Ingredient 2	Not available.

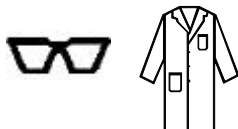
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Personal Protection

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) Neutral.

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 (PBS) Blocking Buffer Component 5.)

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

VOC 7 (%)

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

Dispersion Properties See solubility in water, methanol.

Solubility Easily soluble in methanol.
Partially soluble in cold water, hot water.
Insoluble in diethyl ether, n-octanol.



Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.

Conditions to avoid Not available.

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

Hazardous Polymerization 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 None. by NIOSH [SuperBlock (PBS) Blocking Buffer Component 2]. 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 Not available.

 **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: SuperBlock (PBS) Blocking Buffer Component 2; 5-Chloro-2-methyl-4-isothiazolin-3-one; 2-Methyl-4-isothiazoline-3-one; Magnesium Chloride; Magnesium Nitrate; Water; SuperBlock (PBS) Blocking Buffer Component 5; Milli-Q Water; Buffer Pack Ingredient 1; Buffer Pack Ingredient 2
TSCA 8(d) H and S data reporting: Buffer Pack Ingredient 1

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**Reacti-Bind Streptavidin Coated White
384-Well Plates With SuperBlock Blocking
Buffer (White)**

SARA 302/304/311/312 extremely hazardous substances: No products were found.
 SARA 302/304 emergency planning and notification: No products were found.
 SARA 302/304/311/312 hazardous chemicals: SuperBlock (PBS) Blocking Buffer Component 2; Magnesium Nitrate; Buffer Pack Ingredient 2
 SARA 311/312 MSDS distribution - chemical inventory - hazard identification: SuperBlock (PBS) Blocking Buffer Component 2: immediate health hazard; Magnesium Nitrate: fire; 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 (PBS) Blocking Buffer Component 2
 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: SuperBlock (PBS) Blocking Buffer Component 2; 5-Chloro-2-methyl-4-isothiazolin-3-one; 2-Methyl-4-isthiazoline-3-one; Magnesium Chloride; Magnesium Nitrate; Water; SuperBlock (PBS) Blocking Buffer Component 5; Milli-Q Water; 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): SuperBlock (PBS) Blocking Buffer Component 1; SuperBlock (PBS) Blocking Buffer Component 2; 5-Chloro-2-methyl-4-isothiazolin-3-one; 2-Methyl-4-isthiazoline-3-one; Magnesium Chloride; Magnesium Nitrate; Water; Milli-Q Water; Buffer Pack Ingredient 1; Buffer Pack Ingredient 2

Germany water class: SuperBlock (PBS) Blocking Buffer Component 2; Buffer Pack Ingredient 1; Buffer Pack Ingredient 2

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

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

State Regulations Pennsylvania RTK: SuperBlock (PBS) Blocking Buffer Component 2: (environmental hazard, generic environmental hazard); Magnesium Nitrate: (generic environmental hazard)
 Massachusetts RTK: SuperBlock (PBS) Blocking Buffer Component 2; Magnesium Nitrate
 New Jersey: SuperBlock (PBS) Blocking Buffer Component 2; Magnesium Nitrate
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.

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

Full text of R-Phrases referred under headings 2 and 3:
 Irritating to eyes, respiratory system and skin.
 Irritating to eyes, respiratory system and skin.
 Not applicable.
 Not applicable.
 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.