

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

Responsible Name Pierce Administration

## ? Section 1. Chemical Product and Company Identification

Product name **North2South® Stable Peroxide Buffer**

Product No. 1856230

<b>Supplier</b>	<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> Perbio Science Industriezone III Industrielaan 27 9320 Erembodegem-Aalst Belgium Tel:+32 53 83 44 04 Fax:+32 53 83 76 38	<b>Manufacturer</b>	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 2/4/2003

Validation Date **2/4/2003**

MSDS# 3842

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) Stable Peroxide Buffer Component 1		0.1-1	Not available.	O, Xn	R8, R20/21/22, R36/37/38
2) Stable Peroxide Buffer Component 2		0.1-1	xxx-xxx-x	Xi	R36/37/38
3) Stable Peroxide Buffer Component 3		0.1-1	xxx-xxx-x	C	R10, R21, R35

## 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:  
CARDIOVASCULAR SYSTEM, SKIN, EYES, , EYE, LENS OR CORNEA.

**Routes of Entry** Absorbed through skin. 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 [Stable Peroxide Buffer Component 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

**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)

Continued on Next Page

## **+** Section 4. First Aid Measures

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

### **Effects and symptoms**

- Inhalation** Slightly hazardous in case of inhalation.  
**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.  
**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** 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.

**Continued on Next Page**

## 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

<u>Ingredient Name</u>	<u>Occupational Exposure Limits</u>
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#### United States

#### Sweden

1) Stable Peroxide Buffer Component 1	Not available.
2) Stable Peroxide Buffer Component 2	Not available.
3) Stable Peroxide Buffer Component 3	Not available.

#### Denmark

1) Stable Peroxide Buffer Component 1	Not available.
2) Stable Peroxide Buffer Component 2	Not available.
3) Stable Peroxide Buffer Component 3	Not available.

#### Norway

1) Stable Peroxide Buffer Component 1	Not available.
2) Stable Peroxide Buffer Component 2	Not available.
3) Stable Peroxide Buffer Component 3	Not available.

#### France

1) Stable Peroxide Buffer Component 1	Not available.
2) Stable Peroxide Buffer Component 2	Not available.
3) Stable Peroxide Buffer Component 3	Not available.

#### Netherlands

1) Stable Peroxide Buffer Component 1	Not available.
2) Stable Peroxide Buffer Component 2	Not available.
3) Stable Peroxide Buffer Component 3	Not available.

#### Germany

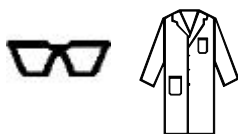
1) Stable Peroxide Buffer Component 1	Not available.
2) Stable Peroxide Buffer Component 2	Not available.
3) Stable Peroxide Buffer Component 3	Not available.

### Personal Protection

**Eyes** Safety glasses.

**Body** Lab coat.

Protective Clothing  
(Pictograms)



## Section 9. Physical and Chemical Properties

**Physical State and Appearance** Liquid.

**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).

**Continued on Next Page**

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

*Volatility* 100% (v/v). (Stable Peroxide Buffer Component 3.)

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

*VOC* 2 (%)

*Dispersion Properties* See solubility in water.

*Solubility* Soluble in cold water, hot water.



## 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 reducing agents, metals.

*Hazardous Polymerization* Will not occur.

*Hazardous Decomposition Products*  Not applicable.



## Section 11. Toxicological Information

*Toxicity to Animals* LD50: Not available.  
LC50: Not available.

*Chronic Effects on Humans* **CARCINOGENIC EFFECTS:** Classified None. by NIOSH [Stable Peroxide Buffer Component 2].

*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* Not available.

*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.



## 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: Stable Peroxide Buffer Component 2; Stable Peroxide Buffer Component 3; Milli-Q Water

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: Stable Peroxide Buffer Component 2; Stable Peroxide Buffer Component 3  
 SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Stable Peroxide Buffer Component 2: immediate health hazard; Stable Peroxide Buffer Component 3: fire, immediate health hazard, delayed health hazard  
 SARA 313 toxic chemical notification and release reporting: No products were found.  
 Clean Water Act (CWA) 307: No products were found.  
 Clean Water Act (CWA) 311: Stable Peroxide Buffer Component 3  
 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: Stable Peroxide Buffer Component 2; Stable Peroxide Buffer Component 3; Milli-Q Water

**International Regulations**

**EINECS** Not available.

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

**International Lists** Australia (NICNAS): Stable Peroxide Buffer Component 1; Stable Peroxide Buffer Component 2; Stable Peroxide Buffer Component 3; Milli-Q Water

Germany water class: Stable Peroxide Buffer Component 1; Stable Peroxide Buffer Component 2

Korea (TCCL): Stable Peroxide Buffer Component 2; Stable Peroxide Buffer Component 3; Milli-Q Water

Philippines (RA6969): Stable Peroxide Buffer Component 1; Stable Peroxide Buffer Component 2; Stable Peroxide Buffer Component 3; Milli-Q Water

**State Regulations** Pennsylvania RTK: Stable Peroxide Buffer Component 3: (environmental hazard)  
 Massachusetts RTK: Stable Peroxide Buffer Component 3  
 New Jersey: Stable Peroxide Buffer Component 3  
 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.

Continued on Next Page

**North2South® Stable Peroxide Buffer**

Full text of R-Phrases  
referenced under headings 2 and 3:

- ☑ Harmful by inhalation, in contact with skin and if swallowed.
- Irritating to eyes, respiratory system and skin.
- Irritating to eyes, respiratory system and skin.
- Harmful in contact with skin.
- Causes severe burns.

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

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Version

2

**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.*