

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

Responsible Name Pierce Administration

? Section 1. Chemical Product and Company Identification

Product name **North2South® Hybridization Stringency Wash Buffer (2x)**

Product No. 1856224

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> Perbio Science Industriezone III Industrielaan 27 9320 Erembodegem-Aalst Belgium Tel:+32 53 83 44 04 Fax:+32 53 83 76 38	Manufacturer	Pierce Milwaukee LLC 2202 N. Bartlett Avenue Milwaukee, WI 53202-1009 USA 1.877.886.7629
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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# 6673

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) Stringency Wash Buffer Component 2		3-5	xxx-xxx-x	Xi	R36
2) Stringency Wash Buffer Component 3		0.1-1	xxx-xxx-x	Xn	R20/21/22, 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, DIGESTIVE SYSTEM, SKIN, EYES, STOMACH.

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

Potential Acute Health Effects Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation (lung irritant).

Carcinogenic Effects Data **CARCINOGENIC EFFECTS:** Classified None. by NIOSH [Stringency Wash Buffer Component 3].
MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Classified None. for human [Stringency Wash Buffer Component 3].

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 (lung irritant).

Ingestion Slightly hazardous in case of ingestion.

Skin Contact Sensitization of the product: Not available.
Slightly hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Eye Contact Slightly hazardous in case of eye contact (irritant).

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 if symptoms appear.

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 Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.

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 if irritation occurs.

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. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

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 acetic acid.** 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. If necessary: **Neutralize the residue with a dilute solution of acetic acid.** 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

Continued on Next Page

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.

Exposure Limit Values

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

1) Stringency Wash Buffer Component 2	Not available.
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Sweden

1) Stringency Wash Buffer Component 1	Not available.
2) Stringency Wash Buffer Component 2	Not available.
3) Stringency Wash Buffer Component 3	Not available.

Denmark

1) Stringency Wash Buffer Component 1	Not available.
2) Stringency Wash Buffer Component 2	Not available.
3) Stringency Wash Buffer Component 3	Not available.

Norway

1) Stringency Wash Buffer Component 1	Not available.
2) Stringency Wash Buffer Component 2	Not available.
3) Stringency Wash Buffer Component 3	Not available.

France

1) Stringency Wash Buffer Component 1	Not available.
2) Stringency Wash Buffer Component 2	Not available.
3) Stringency Wash Buffer Component 3	Not available.

Netherlands

1) Stringency Wash Buffer Component 1	Not available.
2) Stringency Wash Buffer Component 2	Not available.
3) Stringency Wash Buffer Component 3	Not available.

Germany

1) Stringency Wash Buffer Component 1	Not available.
2) Stringency Wash Buffer Component 2	Not available.
3) Stringency Wash 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) Basic.

Color Not available.

Boiling/Condensation Point The lowest known value is 100°C (212°F) (North2South® Direct Nuclease-Free Water).

Melting/Freezing Point May start to solidify at 0°C (32°F) based on data for: North2South® Direct Nuclease-Free Water.

Specific Gravity The only known value is 1 (Water = 1) (North2South® Direct Nuclease-Free Water).

Continued on Next Page

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

Dispersion Properties See solubility in water.

Solubility Soluble in cold water, hot water.
Insoluble in methanol, n-octanol.



Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.

Conditions to avoid Not available.

Materials to avoid Non-reactive with oxidizing agents, reducing agents, alkalis.

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 [Stringency Wash Buffer Component 3].
TERATOGENIC EFFECTS: Classified None. for human [Stringency Wash Buffer Component 3].

Other Toxic Effects on Humans Slightly hazardous in case of eye contact (irritant), of ingestion, of inhalation (lung irritant).

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: Stringency Wash Buffer Component 1; Stringency Wash Buffer Component 2; Stringency Wash Buffer Component 3
 TSCA 8(d) H and S data reporting: Stringency Wash Buffer Component 3
 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: Stringency Wash Buffer Component 2; Stringency Wash Buffer Component 3
 SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Stringency Wash Buffer Component 2: immediate health hazard, delayed health hazard; Stringency Wash Buffer Component 3: 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: 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).

CEPA DSL: Stringency Wash Buffer Component 1; Stringency Wash Buffer Component 2; Stringency Wash Buffer Component 3

International Regulations

EINECS Not available.

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

International Lists Australia (NICNAS): Stringency Wash Buffer Component 1; Stringency Wash Buffer Component 2; Stringency Wash Buffer Component 3
 Germany water class: Stringency Wash Buffer Component 3
 Korea (TCCL): Stringency Wash Buffer Component 1; Stringency Wash Buffer Component 2; Stringency Wash Buffer Component 3
 Philippines (RA6969): Stringency Wash Buffer Component 1; Stringency Wash Buffer Component 2; Stringency Wash Buffer Component 3

State Regulations No products were found.

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		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.

**North2South® Hybridization Stringency
Wash Buffer (2x)**

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

- Not applicable.
- Irritating to eyes.
- Harmful by inhalation, in contact with skin and if swallowed.
- 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 2/4/2003.	Verified by Pierce Administration.	Date of Previous Issue	1/15/2003
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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.*