

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

Responsible Name Regulatory Affairs

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

**Product name** Mem-PER® Membrane Protein Solubilization Reagent

**Product No.** 89864E

**Supplier** Pierce Chemical Company  
P.O. Box 117  
Rockford, IL 61105  
USA  
815.968.0747 or  
1.800.874.3723

**Manufacturer** Pierce Milwaukee LLC  
2202 N. Bartlett Avenue  
Milwaukee, WI 53202-1009  
USA  
877-886-7629

**In Case of Emergency** CALL CHEMTREC:  
800.424.9300  
OUTSIDE US:  
202.483.7616

**Print Date** 2/13/2003  
**Validation Date** 2/13/2003  
**MSDS#** 4195

**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) Ingredient 1		7-10	Not available.	--	Not controlled under dsd (Europe).
2) Ingredient 2		80-95	231-791-2	--	Not controlled under dsd (Europe).

 **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!  
CAUSES DAMAGE TO THE FOLLOWING ORGANS: RESPIRATORY TRACT, SKIN, EYES.

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

**Potential Acute Health Effects** Non-hazardous in case of ingestion. Non-hazardous in case of inhalation.

**Carcinogenic Effects Data** **CARCINOGENIC EFFECTS:** Not available.  
**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* Non-hazardous in case of inhalation.

*Ingestion* Non-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* 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* Not available.

## 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.

## 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.

*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. 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>
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#### United States

1) Ingredient 1	Not available.
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#### Sweden

1) Ingredient 1	Not available.
2) Ingredient 2	Not available.

#### Denmark

1) Ingredient 1	Not available.
2) Ingredient 2	Not available.

#### Norway

1) Ingredient 1	Not available.
2) Ingredient 2	Not available.

#### France

1) Ingredient 1	Not available.
2) Ingredient 2	Not available.

#### Netherlands

1) Ingredient 1	Not available.
2) Ingredient 2	Not available.

#### Germany

1) Ingredient 1	Not available.
2) Ingredient 2	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)



## 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** Clear to Cloudy

**Boiling/Condensation Point** The lowest known value is 100°C (212°F) (Ingredient 2).

**Melting/Freezing Point** May start to solidify at -0.1°C (31.8°F) based on data for: Ingredient 2.

**Specific Gravity** The only known value is 1 (Water = 1) (Ingredient 2).

**Vapor Pressure** The highest known value is 2.3 kPa (@ 20°C) (Ingredient 2).

**Vapor Density** The highest known value is 0.62 (Air = 1) (Ingredient 2).

**Continued on Next Page**

**Mem-PER® Membrane Protein  
Solubilization Reagent**

*Evaporation Rate* 0.36 (Ingredient 2) compared to Butyl acetate.

*Dispersion Properties* See solubility in water.

*Solubility* Partially 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* Reactive with oxidizing agents.

*Hazardous Polymerization* Will not occur.

*Hazardous Decomposition  
Products* Not available.



## **Section 11. Toxicological Information**

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

*Chronic Effects on Humans* Causes damage to the following organs: upper respiratory tract, skin, eyes.

*Other Toxic Effects on Humans* Non-hazardous in case of inhalation. Non-irritant 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** Irritating substance.

**U.S. Federal Regulations** TSCA 8(b) inventory: Ingredient 2  
 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: No products were found.  
 SARA 311/312 MSDS distribution - chemical inventory - hazard identification: No products were found.  
 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)** Not controlled under WHMIS (Canada).

CEPA DSL: Ingredient 2

**International Regulations**

**EINECS** Not available.

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

**International Lists** Australia (NICNAS): Ingredient 2

Korea (TCCL): Ingredient 2

Philippines (RA6969): Ingredient 2

**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	*	1
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** Not applicable.  
**referenced under headings 2 and 3:** Not applicable.

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

**Continued on Next Page**

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Date of Previous Issue No Previous  
Validation

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Version

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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.*