

## ? Section 1. Chemical Product and Company Identification

**Product name** DiscoverLight™ Membrane

**Product No.** 1858752

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

**Manufacturer** Pierce Biotechnology  
P.O. Box 117  
Rockford, IL 61105  
USA  
815.968.0747 or  
1.800.874.3723

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

**Print Date** 9/12/2002

**Validation Date** 8/22/2002

**MSDS#** 5186

**Synonyms** CELLULOSE, ESTERS, NITRATE ; NITROCELLULOSE; CELLULOSE NITRATE; CELLULOSE TETRANITRATE; NITRON; PYROXYLIN

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

**Chemical name** CELLULOSE, ESTERS, NITRATE ; NITROCELLULOSE; CELLULOSE NITRATE; CELLULOSE TETRANITRATE; NITRON; PYROXYLIN

## Section 2. Composition, Information on Ingredients

**Substance/Preparation** : Substance

Ingredient Name	CAS No.	%	EC Number	Symbol	R-Phrases
1) DiscoverLight Membrane	9004-70-0	98-100	Not available.	F	R11

## 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** CAUTION!

FLAMMABLE SOLID.

MAY BE HARMFUL IF ABSORBED THROUGH SKIN OR IF SWALLOWED.

Keep away from heat, sparks and flame. Avoid prolonged contact with eyes, skin, and clothing. Do not ingest. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

**Routes of Entry** Inhalation.

**Potential Acute Health Effects** No specific information is available in our database regarding the acute toxic effects of this material for humans.

**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** R11

**Physical/chemical hazards** Highly flammable.

**Human health hazards** Not applicable.

**Environmental hazards** Not applicable.

See Toxicological Information (section 11)

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## Section 4. First Aid Measures

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

### **Effects and symptoms**

<i>Inhalation</i>	Not available.
<i>Ingestion</i>	Not available.
<i>Skin Contact</i>	Not available.
<i>Eye Contact</i>	Not available.
<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.
<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>	In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
<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. Get medical attention.
<i>Notes to Physician</i>	Not available.
<i>Protection of first-aiders</i>	Not available.

## Section 5. Fire Fighting Measures

*Flammability of the Product* Flammable.

*Flash Points* CLOSED CUP: 12.9°C (55.2°F).

*Fire Hazards in Presence of Various Substances* Extremely flammable in presence of open flames and sparks, of shocks, of heat, of oxidizing materials, of reducing materials, of combustible materials.

*Fire Fighting Media and Instructions* Flammable solid.  
SMALL FIRE: Use DRY chemical powder.  
LARGE FIRE: Use water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion.

*Protective Clothing (Fire)* Be sure to use an approved/certified respirator or equivalent.

*Special Remarks on Fire Hazards* HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.  
Vapors may form explosive mixtures with air.  
Vapors may travel to source of ignition and flash back.  
Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).  
Vapor explosion hazard indoors, outdoors or in sewers.  
Some may polymerize (P) explosively when heated or involved in a fire.  
Runoff to sewer may create fire or explosion hazard.  
Containers may explode when heated.  
Many liquids are lighter than water.

*Hazardous thermal (de)composition products* These products are carbon oxides (CO, CO<sub>2</sub>), nitrogen oxides (NO, NO<sub>2</sub>...).

## Section 6. Accidental Release Measures

*Personal precautions* Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

*Environmental Precautions and Clean-up Methods* Flammable solid.  
Stop leak if without risk. Do not touch spilled material. Use water spray curtain to divert vapor drift. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources. Call for assistance on disposal.

*Small Spill and Leak* Use appropriate tools to put the spilled solid in a convenient waste disposal container.

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## ◆ Section 7. Handling and Storage

**Handling** Keep away from heat, sparks and flame. To avoid fire, minimize ignition sources.

**Storage** Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame). Do not store above 30°C (86°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** Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

### Exposure Limit Values

<u>Ingredient Name</u>	<u>Occupational Exposure Limits</u>
<b>United States</b>	
1) Discoverlight Membrane	Not available.
<b>Sweden</b>	
1) Discoverlight Membrane	Not available.
<b>Denmark</b>	
1) Discoverlight Membrane	Not available.
<b>Norway</b>	
1) Discoverlight Membrane	Not available.
<b>France</b>	
1) Discoverlight Membrane	Not available.
<b>Netherlands</b>	
1) Discoverlight Membrane	Not available.
<b>Germany</b>	
1) Discoverlight Membrane	Not available.

### Personal Protection

**Eyes** Safety glasses.

**Body** Lab coat.

**Respiratory** Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.

**Hands** Gloves.

Protective Clothing  
(Pictograms)





## Section 9. Physical and Chemical Properties

**Physical State and Appearance** Solid. (flat sheet Fibrous solid.)

**Odor** Odorless.

**Molecular Weight** 504.3 g/mole

**Taste** Not available.

**Molecular Formula** C<sub>12</sub>H<sub>16</sub>(ONO<sub>2</sub>)<sub>4</sub>O<sub>6</sub>

**Color** Colorless.

**Dispersion Properties** Not available.

**Solubility** Insoluble in cold water, hot water.



## Section 10. Stability and Reactivity

**Stability and Reactivity** Unstable.

**Conditions to avoid** Not available.

**Materials to avoid** Reactive with acids, alkalis.

**Hazardous Polymerization** Will not occur.

**Hazardous Decomposition Products** These products are carbon oxides (CO, CO<sub>2</sub>), nitrogen oxides (NO, NO<sub>2</sub>...).



## Section 11. Toxicological Information

**Toxicity to Animals** Acute oral toxicity (LD50): 2000 mg/kg [Rat].  
Acute dermal toxicity (LD50): 2000 mg/kg [Rat].

**Chronic Effects on Humans** Not available.

**Other Toxic Effects on Humans** No specific information is available in our database regarding the other toxic effects of this material for humans.

**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** Highly toxic when heated.



## 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 of all information regarding proper the transportation method for this material.*



## Section 15. Regulatory Information

### Label Requirements (Europe)

R11- Highly flammable.

S16- Keep away from sources of ignition - No smoking.



**Highly flammable**

### HCS Classification **Flammable solid.**

**U.S. Federal Regulations** TSCA 8(b) inventory: Discoverlight Membrane

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: Discoverlight Membrane

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Discoverlight Membrane: fire

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 B-4: Flammable solid.

CEPA DSL: Discoverlight Membrane

### International Regulations

**EINECS** Not available.

**DSCL (EEC)** R10- Flammable.

**International Lists** Australia (NICNAS): Discoverlight Membrane

Korea (TCCL): Discoverlight Membrane

Philippines (RA6969): Discoverlight Membrane

**State Regulations** Pennsylvania RTK: Discoverlight Membrane: (generic environmental hazard)

Massachusetts RTK: Discoverlight Membrane

New Jersey: Discoverlight Membrane

California prop. 65: No products were found.

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## Section 16. Other Information

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


Health	0
Fire Hazard	3
Reactivity	3
Personal Protection	E

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



**References** -The Sigma-Aldrich Library of Chemical Safety Data, Edition II.

**Other Special Considerations** TSCA (Toxic Substance Control Act): This product is listed on the TSCA Inventory. EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances. OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

**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.

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

Validated by Pierce Administration on 8/22/2002.

Verified by Pierce Administration.

Date of Previous Issue No Previous Validation

Printed 9/12/2002.

Version 3

### 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.*