

MILLIPORE

Health, Safety & Environment

ULTRACEL® REGENERATED
CELLULOSE MEMBRANE

MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Millipore Corporation

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Bedford MA 01730

Information

978-715-1335

CHEMTREC Emergency Telephone Numbers

United States

800-424-9300

International

703-527-3887 (world wide collect)

PRODUCT: Ultracel Regenerated Cellulose Membranes

TRADE NAMES/SYNONYMS:

- Ultracel Amicon® YM series, YM-1, YM-3, YM-10, YM-30, YM-50, YM-100,
- Ultracel-10,
- Ultracel PL series, PLAC, PLBC, PLCC, PLGC PLHK, PLTK
- Ultracel-PPB

Product Numbers: See section 16.

MSDS Number:

M102,381

Issue Date:

February 10, 2003

Revision:

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Rev. Date:

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SUBSTANCE IDENTIFICATION

SUBSTANCE: Composite ultrafiltration membranes composed of regenerated cellulose on a mixed polyethylene/polypropylene non-woven support. Glycerine humectant.

SECTION 2 - COMPOSITION AND INFORMATION ON INGREDIENTS

Component	CAS No.	EINECS No.	Percent by Weight
Regenerated Cellulose	9004-34-6 and others	Unlisted	50-70
Polyethylene/Polypropylene mixture	Unlisted	Unlisted	30-50
Glycerine	56-81-5	200-289-5	0-5

SECTION 3 - HAZARD IDENTIFICATION

EMERGENCY OVERVIEW:

<u>Appearance:</u>	Regenerated cellulose membrane supported by a non woven mixed polyolefin support.
<u>Major Health Hazards:</u>	Under normal operating temperature and pressure conditions, these membranes do not present a health hazard
<u>Physical Hazards:</u>	Under normal operating temperatures, these membraness do not present a physical hazard.

SECTION 4 - FIRST AID

Ingestion:	These membranes do not present an ingestion hazard.
Eyes:	Because of the size and solid nature of these membranes they are not expected to present an eye injury hazard.
Skin:	Some individual may experience slight skin irritation from glycerine. Membrane should not be handed with ungloved hands to prevent contamination.
Inhalation:	These membranes do not present an inhalation hazard because of the non-volatile nature of the polymeric component materials, and the low volatility of glycerine.

SECTION 5 - FIRE FIGHTING MEASURES

Fire & Explosion Hazards:	The polymer components of these membranes will melt and or decompose under fire conditions. Once ignited, they will add to the intensity of the fire, and can be expected to emit hazardous and toxic gases, vapors, fumes and smoke particles.
Extinguishing Media:	Water and ABC chemical extinguishers
Large fires:	Flood with water. Apply water from a protected location or from a safe distance.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Spills and Leaks:	Because of the integral nature of these membranes, they do not release materials to the environment when used as recommended operating temperature and pressure conditions. Pick up spilled membranes and discard in ordinary trash.
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SECTION 7- HANDLING AND STORAGE

Store in a cool dry location. Keep packaging closed when not in use. Keep away from strong oxidizers and organic solvents.

SECTION 8 - PERSONAL PROTECTION AND EXPOSURE CONTROL

Ventilation, Personal Protection and Respirator Use:	The ventilation, personal protection and respirator requirements will be dictated by the nature of the fluids being processed.
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SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

The polymeric material components of membranes are essentially chemically inert, water insoluble, with low vapor pressures. Chemical inertness varies with the different polymers and the user should confirm the compatibility of these materials with the process fluids to be used. The small amount of glycerine in the membrane is water soluble and will be washed off in the initial washing of the membrane

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability:	Stable at normal temperatures and pressure.
Hazardous Polymerization	Will not occur.
Incompatible with:	Strong oxidizing agents, organic solvents
Hazardous Decomposition/ Combustion Products:	The nature and concentration of various decomposition and combustion products that will result from heating of these polymers will vary depending upon variables such as temperature, oxygen and water vapor concentration, and the presence of other materials. The possible products, include, but are not limited to those shown below:

<u>Polymer</u>	<u>Decomposition or Combustion Products</u>
Regenerated Cellulose	Carbon dioxide and carbon monoxide.
Polypropylene/polyethylene	Carbon particles, carbon monoxide, carbon dioxide, and other organic compounds.
Glycerine	Carbon dioxide and carbon monoxide

SECTION 11 - TOXICOLOGICAL INFORMATION

Carcinogenicity:	No components are listed as carcinogenic by IARC, NIOSH, NTP, or OSHA
Endocrine Disrupters	To the best of our knowledge, none of the components are suspected endocrine disrupters.

Exposure Limits:

<u>INGREDIENT</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>NIOSH REL</u>
All components	None listed	None listed	None listed

SECTION 12 - ECOLOGICAL INFORMATION

Due to the inert nature of the polymeric materials in these membranes, it is expected that they will have very limited biodegradability in water or soils.

SECTION 13- DISPOSAL INFORMATION

The components of these membranes are not listed as RCRA D, F, P or U Series hazardous wastes. The liquid processed through these membranes may leave residual materials, which are subject to hazardous waste regulations, and would, therefore, subject the used membranes to disposal regulation. Waste membranes should be disposed of in a manner consistent with federal, state and local regulations.

SECTION 14 - TRANSPORTATION INFORMATION

The transport of these membranes is not regulated by USDOT, ICAO/IATA, ADR or IMO as a hazardous material or dangerous goods. However, once used, these membranes may contain residual materials that are regulated materials. The user should determine the applicability of current regulation prior to shipping used membranes.

SECTION 15 - REGULATORY INFORMATION

All components of these membranes are listed on the USEPA Toxic Substances Control Act (TSCA) Inventory or are covered by the polymer exemption of the Act.

SECTION 16- ADDITIONAL INFORMATION

Ultracel Membrane Catalog Numbers:

Membrane Type	Catalog Numbers
Ultracel Amicon YM1	13312, 13322, 13332, 13342, 13351AM, 13361, 40422
Ultracel Amicon YM3	13412, 13422, 13432, 13442AM, 13451, 14361AM, 40423
Ultracel Amicon YM10	13612, 13622, 13632, 13642, 13651AM, 13661AM, 40424
Ultracel Amicon YM30	13712, 13722, 13732, 13742, 13751, 13761, 40428
Ultracel Amicon YM100	14412, 14422AM, 14432, 14442, 14451, 14461
Ultracel PLAC	PLAC 025 10, PLAC 043 10, PLAC 047 10, PLAC 062 10, PLAC 076 10, PLAC 090 10, PLAC 150 10,
Ultracel PLBC	PLBC 025 10, PLBC 043 10, PLBC 047 10, PLBC 062 10, PLBC 076 10, PLBC 090 10, PLBC 150 10,
Ultracel PLCC	PLCC 025 10, PLCC 043 10, PLCC 047 10, PLCC 062 10, PLCC 076 10, PLCC 090 10, PLCC 150 10,
Ultracel PLGC	PLGC 025 10, PLGC 043 10, PLGC 047 10, PLGC 062 10, PLGC 076 10, PLGC 090 10, PLGC 150 10,
Ultracel PLHK	PLHK 025 10, PLHK 043 10, PLHK 047 10, PLHK 062 10, PLHK 076 10, PLHK 090 10, PLHK 150 10,
Ultracel PLTK	PLTK 025 10, PLTK 043 10, PLTK 047 10, PLTK 062 10, PLTK 076 10, PLTK 090 10, PLTK 150 10,
Ultracel-PPB	The Membrane in MultiScreen [®] Filter Assemblies MAPP B10 02 and MAPP B10 10
Ultracel-10	The Membrane in MultiScreen Filter Plates MAVF B10 02 and MAVF B10 10

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