

MILLIPORE

Health, Safety & Environment

AEROSOL ANALYSIS MONITORS
with mixed cellulose ester membrane
and cellulose pad

MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Millipore Corporation	
290 Concord Road	
Billerica MA 1821	
Information	978-715-1335
<u>CHEMTREC Emergency Telephone Numbers</u>	
United States	800-424-9300
International	703-527-3887 (collect)
PRODUCT:	Aerosol Analysis Monitor with Mixed Cellulose Ester membrane and cellulose pad
Product Numbers:	MABG037A0, MAWP037A0, MAWG037A0, MHWP037A0
MSDS Number	M114700
Issue Date:	April 6, 2004
Rev. Date:	November 11, 2008
Revision:	A
SUBSTANCE IDENTIFICATION	
SUBSTANCE: A cassette composed of:	
<ul style="list-style-type: none">• a mixed cellulose ester membrane• a cellulose absorbent pad,• a styrene-acrylonitrile base and cap• polyethylene plug	
Use: Particulate analysis of aerosol samples by vacuum filtration.	

SECTION 2 - COMPOSITION AND INFORMATION ON INGREDIENTS

Structural Components			
Material	CAS No	EINCES No.	Function
Mixed cellulose ester membrane:	--	--	Membrane
Nitrocellulose	9004-70-0	Not listed	
Cellulose acetate	9004-35-7	Not listed	
Cellulose	9004-34-6	232-674-9	Pad
Styrene acrylonitrile	9003-54-7	Not listed	Base and cap
Polyethylene	9002-88-4	200-849-9	plug

SECTION 3 - HAZARD IDENTIFICATION

EMERGENCY OVERVIEW	
<u>Appearance:</u>	Clear plastic cassette with gridded or plain white or black membrane and white pad.
<i>Hazards are related to accidental or intentional contact with the membrane or pad.</i>	
<u>Major Health Hazards:</u>	Not expected to present a health hazard.
<u>Physical Hazards:</u>	Intact, this device is not expected to present a physical hazard. The mixed cellulose ester membrane is flammable.
Health Effects	
<u>Route of Entry</u>	<u>Potential Health Effects and Symptoms of Exposure</u>
Skin:	Membrane and pad may be a very slight skin irritant
Eyes:	Direct contact with membrane or pad may cause eye irritation.
Ingestion	Not expected to be a gastro-intestinal tract irritant
Inhalation:	Not expected to present an inhalation hazard due to consolidated nature of the membrane and pad.
Target organs:	Nitrocellulose – Kidneys, central nervous system.
Medical Conditions Aggravated by Exposure:	None known

SECTION 4 - FIRST AID

Ingestion:	The membrane and pad materials are not expected to present an ingestion hazard. Large quantities may cause gastro-intestinal discomfort. If symptoms persist, seek medical attention.
Eyes:	If mechanical damage is evident, or irritation persists, seek medical attention.
Skin:	Wash exposed skin with soap and water.

SECTION 5 - FIRE FIGHTING MEASURES

Fire & Explosion Hazards:	The plastic components of this device will melt and or decompose under fire conditions. Once ignited, the plastic materials, membrane and cellulose will add to the intensity of the fire, and can be expected to emit hazardous and toxic gases, vapors, fumes and smoke particles.
Flash Point:	Not Applicable. (Mixed cellulose ester membrane will begin to decompose above 55°C.)
Fire Extinguishing Media	Dry chemical, foam, water or carbon dioxide.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Spills and Leaks: Unused Product: collect the components and dispose as ordinary trash, or recycle if facilities exist.
Used Product: Contaminated components must be collected and disposed in a manner consistent with federal, state, and local regulations for the hazards of the contaminating liquids and or organisms.

SECTION 7- HANDLING AND STORAGE

Store in a cool, dry place. Handle with care to prevent loss of sterility. Keep mixed cellulose ester membrane away from sources of ignition, such as flames, hot surfaces, and static discharges.

SECTION 8 - PERSONAL PROTECTION AND EXPOSURE CONTROL

Ventilation: No special ventilation required.
Personal Protection: Safety glasses with side shields are adequate for normal use of this product.
Wear appropriate gloves to prevent skin contact and loss of sterility.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

The polymeric material components of these devices 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.

Component	Mixed cellulose ester	Cellulose	Styrene Acrylonitrile
Physical State	White solid	White fibrous solid	Clear, almost colorless solid
Density, grams/cc	Not available	1.2 – 1.3	1.05-1.15
Odor	Not available	Odorless	Not available
Odor threshold	Not available	Not available	Not available
Water solubility:	Insoluble	Insoluble	Insoluble
pH	Not applicable	Not applicable	Not applicable
Melting Point	Decomposes	500°C	About 115 °C
Boiling Point	Not available	Not available	Not available
Vapor Pressure	Nil	Nil	Nil
Volatility	Not applicable	Not applicable	Not applicable
Evaporation Rate	Non-volatile	Non-volatile	Non-volatile
Coefficient of water/oil distribution:	Not available	Not available	Not available

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability:	Stable
Hazardous Polymerization	Will not occur.
Conditions to Avoid:	Excess heat, and contact with incompatible substances.
Incompatible with:	Strong oxidizing agents and organic solvents.
Hazardous Decomposition Products:	
Styrene acrylonitrile	Carbon Monoxide and Carbon Dioxide, Oxides of Nitrogen, Irritant Vapors or Gases.
Mixed cellulose ester membrane	Oxides of carbon and nitrogen
Cellulose	Carbon dioxide and carbon monoxide

SECTION 11 - TOXICOLOGICAL INFORMATION

Carcinogenicity:	Not listed as carcinogenic by IARC, NIOSH, NTP, or OSHA.		
Acute Effects:	Prolonged or repeated contact may cause skin and eye irritation through mechanical action.		
Exposure Limits:			
INGREDIENT	OSHA PEL	ACGIH TLV	UNITED KINGDOM OEL
Cellulose dust	15 mg/m ³ (total particulate) 5 mg/m ³ (respirable particulate) 8-hour TWA	10 mg/m ³ (total dust)	Total dust: 10 mg/m ³ TWA; 20 mg/m ³ STEL Resp. dust: 5 mg/m ³ TWA
Toxicology Data			
No toxicological data is available for this product as an entity.			
<u>Selected RTECS data for components</u>			
Cellulose (100%)	RTECS#: FJ5691460		
LD ₅₀ , oral, rat	>5 gm/kg		
LD ₅₀ , inhalation, rat	>5800 mg/m ³ /4H		
Nitrocellulose:	RTECS#: QW0970000		
LD ₅₀ , Oral, Mouse	>5 gm/kg		
LD ₅₀ , Oral, Rat	>5 gm/kg		
Cellulose Acetate	RTECS#: Not Listed		
LD ₅₀ , Oral, Rat	>3.2 gm/kg Data: Van Waters & Rogers		

SECTION 12 - ECOLOGICAL INFORMATION

The mixed cellulose ester membrane and cellulose will decompose very slowly in contact with soil and water, while the plastic structural components are not readily biodegradable.

SECTION 13- DISPOSAL INFORMATION

The components of this device are not listed as RCRA D, F, P or U Series hazardous wastes. The organisms cultured in this device may make the product an infectious waste, and must be disposed of in a manner consistent with federal, state and local regulations.

SECTION 14 - TRANSPORTATION INFORMATION

This product is not regulated by USDOT, ICAO/IATA, or IMO as a hazardous material or dangerous goods. The organisms cultured may make the product an infectious hazardous material and must be transported in accordance with applicable national and international regulations.

SECTION 15 - REGULATORY INFORMATION

United States: All of the components of this product are listed on the Toxic Substances Control Act (TSCA) Chemical Inventory, or exempt under the polymer exemption. See regulations in 40 CFR 710 for details.

California: No significant Risk Level: None of the chemicals in this product are known to Millipore Corporation to be listed.

European Union: European Labeling in Accordance with EC Directives:

Hazard Symbols:	None applicable
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Risk Phrases:	None applicable
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Safety Phrases:	None applicable
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Japan: None of the components of this product are listed by the Poisonous and Deleterious Substance Act.

Canada: This product has a WHMIS classification of Not Controlled.

SECTION 16- ADDITIONAL INFORMATION

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