



MATERIAL SAFETY DATA SHEET

ISSUE NO.: 1 REVISION DATE: 04/24/2012

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Nitocellulose Membrane Filters
PRODUCT NUMBER(S): See section 16
SYNONYMS: MCE Filters, MCE Membrane, Mixed Cellulose Ester Filter, Nitrocellulose Filter

INTENDED PRODUCT USE: Air Monitoring, Liquid Monitoring, Microbiological Assay

MANUFACTURER: Zefon International, Inc.
ADDRESS: 5350 SW 1st Lane
Ocala, FL 34474 USA

HOURS OF OPERATION: 8:00AM to 5:30PM Eastern Time (GMT -5)

TELEPHONE NUMBER: +1 (352) 854-8080
FASIMILE NUMBER: +1 (352) 854-7480
EMAIL: zefoncs@zefon.com

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME**	CAS NO.	EINECS #	CONCENTRATION (% wt)	EU HAZARD SYMBOL LETTERS
Nitrocellulose	9004-70-0	Not Listed	80-100% *	N/A
Cellulose Acetate	9004-35-7	Not Listed	0-20%	N/A

* The nitrogen content of the nitrocellulose does not exceed 12.6% on a dry weight basis

** Chemical Name as listed in Annex I of Directive 67/548/EEC

SECTION 3: HAZARDS IDENTIFICATION

ROUTES OF ENTRY:

ENTRY POINT	POTENTIAL HEALTH EFFECT (long and short term)
Eye Contact	Due to the size and solid nature of these products they are not expected to present an eye injury hazard.
Ingestion	Due to the size and solid nature of these products they are not expected to present an eye injury hazard.
Inhalation	Due to the size and solid nature of these products they are not expected to present an inhalation hazard because of the non-volatile nature of the component materials
Skin Contact	Skin irritation or reactions to the components of these products have not been reported

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

No information is available to the best of our knowledge

SECTION 4: FIRST AID MEASURES

METHOD OF ENTRY	FIRST AID MEASURE
Eye Contact	If the product contacts the eyes, promptly wash (irrigate) the eyes with large amounts of tepid water for at least 15 minutes, occasionally lifting the lower and upper lids. Seek medical attention immediately
Ingestion	Seek medical attention immediately. Never give an unconscious person anything by mouth. If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration. Do not induce vomiting.
Inhalation	If a person inhales large amounts of the product move the exposed person to fresh air at once. If breathing is difficult or stops seek immediate medical attention.
Skin Contact	If the product contacts the skin, immediately flush the contaminated skin with water. If this chemical penetrates clothing immediately remove the clothing and flush the skin with water. Seek medical attention immediately.



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SECTION 5: FIRE-FIGHTING MEASURES

FIRE AND EXPLOSION HAZARDS:

Severe Fire Hazard

EXTINGUISHING MEDIA:

Dry chemical, sand, earth, water spray, fog or regular foam.

SPECIAL FIRE AND EXPLOSION HAZARDS:

Mixing with incompatible chemicals may cause ignition or deflagration. Heat affected containers may remain hazardous.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Avoid heat, flames, sparks and other sources of ignition. Collect material into suitable, loosely covered container for disposal. Remove sources of ignition.

SECTION 7: HANDLING AND STORAGE

Ideal storage conditions are as follows:

- Protect from direct sunlight.
- Keep away from sources of ignition and heat.
- Recommended storage temperature: 15-25 °C.
- Recommended storage humidity: 30-70% RH

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ESTABLISHED EXPOSURE LEVELS

Chemical	OSHA PEL	NIOSH REL	ACGIH TLV	OTHER
Nitrocellulose	Not Listed	Not Listed	Not Listed	None
Cellulose Acetate	Not Listed	Not Listed	Not Listed	None

EXPOSURE CONTROLS

Engineering Controls	General room ventilation is adequate for use of the product.
Respiratory Protection	Respiratory protection is not normally required.
Eye Protection	Safety glasses with side shields
Skin Protection	Laboratory coat, chemically resistant gloves

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Color	White, or White with black/green grid lines printed on it.
Odor	Not Available
Odor Threshold	Not Available
pH	Not Available
Melting Point	Not Available
Initial Boiling Point and Boiling Range	Essentially that of water
Evaporation Rate, 20° C	Not Available
Flash Point	Not Available
Explosive limits	
Vapor Pressure	Not Available
Vapor Density, 20° C	Not Available
Relative Density (Water = 1.0)	Not Available
Solubility	Insoluble
Partition Coefficient (n-octanol/water)	Not Available
Auto Ignition Temperature (ASTM D1929)	Not Available
Decomposition Temperature	Not Available
Oxidizing Properties	Not Available



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Viscosity, Centipose	Not Available
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SECTION 10: STABILITY AND REACTIVITY

CHEMICAL STABILITY:

Product is stable when stored at normal ambient temperatures

CONDITIONS TO AVOID (STABILITY):

Heat, flames, sparks, sources of ignition

INCOMPATIBILITY (MATERIAL TO AVOID):

Strong acids, bases, oxidizers

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:

Heating to decomposition may produce carbon monoxide, carbon dioxide, nitrogen oxides

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicological information for this product as a whole does not exist, below is data for the individual components. 0 - 20% of the substance consists of ingredients of unknown acute (oral/dermal/inhalation) toxicity.

Acute Toxicity	Toxicity Test	Exposure Route	Dose	Observed Effect
Nitrocellulose	LD50 (Rat)	Oral	> 5,000 mg/kg	N/A
	LD50 (Mouse)	Oral	> 5,000 mg/kg	N/A
Cellulose Acetate	Not Available			
Skin Corrosion/Irritation	Not Available			
Serious Eye Damage/Eye Irritation	Not Available			
Respiratory or Skin Sensitization	Not Available			
STOT-Single Exposure	Not Available			
STOT-Repeated Exposure	Not Available			
Aspiration Hazard	Not Available			
Mutagenicity	Not Available			
Reproductive Toxicity	Not Available			

CARCINOGENICITY

Carcinogenetic information for this product as a whole does not exist, below is data for the individual components:

Agency	OSHA	NTP	IARC
Nitrocellulose	Not Listed	Not Listed	Not Listed
Cellulose Acetate	Not Listed	Not Listed	Not Listed

SECTION 12: ECOLOGICAL INFORMATION

TOXICITY:

Ecotoxicity information for this product as a whole does not exist. 0 - 20% of this substance consists of ingredients of unknown hazards to the aquatic environment.

Nitrocellulose:	No Response Ictalurus Punctatus 96 Hours 1,000,000 ug/L
	No Response Lepomis Macrochirus 96 Hours 1,000,000 ug/L
	No Response Oncorhynchus Mykiss 96 Hours 1,000,000 ug/L
Cellulose Acetate:	Not Available

SECTION 13: DISPOSAL CONSIDERATIONS



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Dispose in accordance with all applicable international, federal, state and local regulations.

SECTION 14: TRANSPORT INFORMATION

PROPER SHIPPING NAME: Nitrocellulose membrane filters
UN NUMBER: UN3270
HAZARD CLASS: 4.1
PACKING GROUP: II
LABEL STATEMENT: FLAMMABLE SOLID

SMALL QUANTITY EXCEPTION (ground shipments only):

A Small Quantity Exception applies to all product numbers listed on this MSDS because the amount of hazardous material is less than 30g per inner package. Under this provision, the out container may not weight more than 29kg and the outer carton must be labeled "THIS PACKAGE CONFORMS TO 49 CFR 173.4."

OTHER APPLICABLE INFORMATION: Special Provisions: 43, A73, A122.

SECTION 15: REGULATORY INFORMATION

Australia:	Hazchem Code:	1Z
	Poisons Schedule Number:	Not Listed
California	Proposition 65 Listed:	Not Listed
Canada:	WHMIS	F, B4, B6
European Union	REACH:	Chemical Safety Assessment for the substance or sunstances in the product is not required.
	Substances of Very High Concern (SVHC) – Jan 13, 2010	This product does not contain SVHC's in concentrations above 0.1% weight/weight.
	Category of Danger:	F: Highly Flammable
	Risk Phrases:	R11: Highly Flammable
	Safety Phrases:	S 16 Keep away from sources of ignition. No Smoking.

SECTION 16: OTHER INFORMATION

APPLICABLE PRODUCTS

Product #	Description
FGGMCE825	FILTER, 25mm, 0.8µm, MCE, GREEN GRID
FGMCE125	FILTER, 25mm, 1.2µm, MCE, BLACK GRID
FGMCE137	FILTER, 37mm, 1.2µm, MCE, BLACK GRID
FGMCE147	FILTER, 47mm, 1.2µm, MCE, BLACK GRID
FGMCE425	FILTER, 25mm, .45µm, MCE, BLACK GRID
FGMCE4537	FILTER, 37mm, .45µm, MCE, BLACK GRID
FGMCE4547	FILTER, 47mm, .45µm, MCE, BLACK GRID
FGMCE825	FILTER, 25mm, 0.8µm, MCE, BLACK GRID
FGMCE837	FILTER, 37mm, 0.8µm, MCE, BLACK GRID
FGMCE847	FILTER, 47mm, 0.8µm, MCE, BLACK GRID
FMCE0225	FILTER, 25mm, 0.2µm, MCE, PLAIN WHITE
FMCE0237	FILTER, 37mm, 0.2µm, MCE, PLAIN WHITE
FMCE0247	FILTER, 47mm, 0.2µm, MCE, PLAIN WHITE
FMCE125	FILTER, 25mm, 1.2µm, MCE, PLAIN WHITE
FMCE137	FILTER, 37mm, 1.2µm, MCE, PLAIN WHITE
FMCE147	FILTER, 47mm, 1.2µm, MCE, PLAIN WHITE
FMCE425	FILTER, 25mm, .45µm, MCE, PLAIN WHITE
FMCE4537	FILTER, 37mm, .45µm, MCE, PLAIN WHITE
FMCE4547	FILTER, 47mm, .45µm, MCE, PLAIN WHITE
FMCE525	FILTER, 25mm, 5.0µm, MCE, PLAIN WHITE
FMCE537	FILTER, 37mm, 5.0µm, MCE, PLAIN WHITE
FMCE5047	FILTER, 47mm, 5.0µm, MCE, PLAIN WHITE
FMCE6537	FILTER, 37mm, .65µm, MCE, PLAIN WHITE



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FMCE6547	FILTER, 47mm, .65µm, MCE, PLAIN WHITE
FMCE825	FILTER, 25mm, 0.8µm, MCE, PLAIN WHITE
FMCE837	FILTER, 37mm, 0.8µm, MCE, PLAIN WHITE
FMCE847	FILTER, 47mm, 0.8µm, MCE, PLAIN WHITE