



Material Safety Data Sheet

Part 1 – Product and Company Information

Product Name:	Filter Cartridge
Product Number:	LP..., LE..., LF..., ... Series PES Filter Cartridges (Please contact ANOW for more details)
Company:	Hangzhou ANOW Microfiltration Co., Ltd. Room 903, Central Building, No.271, Hushu South Road, Hangzhou, 310005, China
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Part 2 – Composition and Information on Ingredients

Component	CAS No.	EINECS No.	Function
Polyethersulphone (PES)	25667-42-9	—	Filtration membrane
Polypropylene (PP)	9003-07-0	—	Cage, core, end caps, supports, drainage, and filter housing
Polypropylene non-woven fabric	9003-07-0	—	Up and downstream supports
Silicone Elastomer or EPDM elastomer or Fluoroelastomer or TEV(PFA encapsulated silicone or fluoroelastomer)	—	—	O-rings or Gaskets

Part 3 – Hazard Identification

Appearance:	Porous white membrane encased in a solid polymer (plastic) housing with silicone O-rings on end cap subassembly.
Health Hazards:	Under normal operating temperature and pressure conditions, these devices do not present a health hazard.
Physical Hazards:	Under normal operating temperature and pressure conditions, these devices do not present a physical hazard. If removed from its housing, the membrane and non-woven fabric should be considered to be a combustible solid.

Part 4 – First Aid Measures

Ingestion:	These devices are not likely to be hazardous by ingestion. Consult a physician if necessary.
Eyes:	Because of the size and solid nature of these devices they are not expected to present an eye injury hazard.
Inhalation:	These devices do not present an inhalation hazard because of the non-volatile nature of the polymeric component materials.
Skin:	These devices are not likely to be hazardous by skin contact, but cleansing the skin is advisable.

Part 5 – Fire Fighting Measures

Fire & Explosion Hazards:	The plastic components of these devices will melt and/or decompose under fire conditions. Once ignited, the plastic materials, especially the membrane, will add to the intensity of the fire, and can be expected to emit hazardous and toxic gases, vapors, fumes and smoke particles. Direct application a strong flame to the cartridge may cause ignition of the membrane. The membrane may continue to burn slowly or to self-extinguish, depending on conditions including moisture content.
Extinguishing Media:	Water, Foam, Dry Chemicals, CO ₂
Large fires:	Flood with water. Apply water from a protected location or from a safe distance.
Fire Fighting Instructions:	Wear self-contained breathing apparatus. Wear full protective equipment. Wear neoprene gloves when handling refuse from fire.

Part 6 – Accidental Release Measures

Spills and Leaks:	Because of the integral nature of the devices, they do not release materials to the environment when used within recommended operating temperature and pressure conditions.
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Part 7 – Handling and Storage

Store in a cool and dry place, out of direct sunlight and away from sources of heat and incompatible chemicals.

Part 8 – Personal Protection and Exposure Control

Under normal operating conditions, personal protective equipment, mechanical ventilation and respiratory protection are not required.

Part 9 – Physical and Chemical Properties

Parameter	PP	PES	PP non-woven	Silicone	EPDM	Fluoroelastomer	TEV
Appearance	white pellets	white membrane	white fabric	colored elastomer			
Specific Gravity	0.9	1.37~1.51	0.9	1.3	1.15	1.85	—
Odor	None	None	None	None			
Water Solubility	Insoluble	Insoluble	Insoluble	Insoluble			
pH	Not applicable	Not applicable	Not applicable	Not applicable			
Melting point	157 °C	200~220 °C	157 °C	Not applicable			
Boiling point	Not available	Not available	Not available	Not available			
Vapor Pressure	Not available	Not available	Not available	Not available			
Vapor Density	Not applicable	Not applicable	Not applicable	Not applicable			
Volatility	Negligible	Negligible	Negligible	Negligible			
Evaporation Rate	Not applicable	Not applicable	Not applicable	Not applicable			

Part 10 – Stability and Reactivity

Chemical Stability:	Stable at normal temperature and pressure conditions.
Incompatible with:	PES: Acetone, chloroform PP: strong oxidizing agents, chlorine, permanganates Silicone Elastomer: Acids, ketone, hydrocarbons, ether, esters EPDM Elastomer: Acids, Cyclohexanone, hydrocarbons, ethers, esters

Fluoroelastomer: Some acids, Ketones, ethers, Pyridine, Acetonitrile, etc

TEV: Applicable to almost all chemical medium

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:

PES: toxic fumes like SO₂, carbon oxides, benzene and related compounds

PP: carbon oxides, acrolein, formaldehyde-like

Silicone Elastomer: oxides of carbon, oxides of silicon, silicones

EPDM Elastomer: flammable hydrocarbons

Fluoroelastomer: Hydrogen fluoride, fluorinated hydrocarbons, carbonyl fluoride, fluorinated olefins and carbon monoxide

TEV: toxic polymer fumes, hydrogen fluoride and carbonyl fluoride, etc

Part 11 – Toxicological Information

Carcinogenicity: No components are listed as carcinogenic by IARC.

Endocrine Disrupters: To the best of our knowledge, none of the components are suspected endocrine disrupters.

Part 12 – Ecological Information

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

Part 13 – Disposal Information

Preferred options for waste disposal are: (1) recycling and (2) landfill. Incinerate only if incinerator is capable of scrubbing out toxic combustion products. Treatment, storage, transportation, and disposal must be in accordance with applicable national, state/provincial, and local regulations.

Part 14 – Transportation Information

Not dangerous goods

Part 15 – Regulatory Information

This safety datasheet complies with the requirements of national regulations.

Part 16 – Additional Information

Warranty

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. And the information in this document is based on the present state of our knowledge. ANOW makes no warranty with respect to such information and assumes no liability for any loss or injury which may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information.