# Aquivion® PW98

## Perfluorosulfonic Acid

### Solvay Specialty Polymers

#### Message:

Aquivion® PW98 is a coarse, acid powder based on the short-side-chain (SSC) copolymer of Tetrafluoroethylene and the Sulfonyl Fluoride Vinyl Ether (SFVE) CF2=CF-O-(CF2)2-SO2F produced by Solvay. The resulting perfluoropolymer's functional groups are in their sulfonic acid form, SO3H. Aquivion® PW98 exhibits ionic exchange capacity and it can be used as is under conditions where conventional exchange resins have shown insufficient chemical resistance. Given the resin's superacid functionality with many active groups it can also be used either directly or as an ingredient of composite structures active as heterogeneous catalysts. This encompasses a wide range of organic syntheses and respective reaction mechanisms. PW98 is characterized by a high degree of polymer crystallinity. It is insoluble in water, acid or bases and in most solvents unless extreme conditions are applied.

Furthermore, Aquivion® PW98 can be dissolved in some organic solvents to produce ion exchage capacity membranes. Proper organic solvents are dipolar aprotic such as N-ethyl-2-pyrrolidone (NEP) and dimethyl sulfoxide. To facilitate the dissolution, slightly increase the temperature to 50-60°C.

General Information				
Appearance	White			
Forms	Powder			
Physical	Nominal Value	Unit	Test Method	
Equivalent (EW) <sup>1</sup>	940 - 1020	g/eq	Internal method	
Moisture Content	5.0	wt%		
Total acid content	0.980 - 1.06	meq/g	Internal method	
Additional Information				

#### HEALTH, SAFETY AND ENVIRONMENT

Aquivion® powders are not harmful if used and handled according to standard processing procedures, such as those outlined in "The Guide to the Safe Handling of Fluoropolymer Resins" issued by the Society of the Plastics Industry. If handled inappropriately, membranes may release harmful toxic chemicals. Please refer to corresponding Material Safety Data Sheets for more information on handling and safety. PACKAGING, SHIPMENT AND STORAGE

Aquivion® powders are delivered in standard polypropylene bottles and drums. Products should be kept closed in their original packaging.

NOTE		
1.	eg = mol SO3H	

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#### Recommended distributors for this material

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