

Aquivion® D98-25BS

perfluorosulfonic acid

Aquivion® D98-25BS is a chemically-stabilized (denoted by the S-suffix) perfluorosulfonic acid (PFSA) ionomer dispersion that exhibits an Equivalent Weight (EW) of 980 g/eq. Polymer concentration is 25%. Solvent system is >99% water and is free of ethers.

Aquivion® PFSA dispersions are based on the unique Short Side Chain copolymer of Tetrafluoroethylene (TFE) and Sulfonyl Fluoride Vinyl Ether (SFVE) $F_2C=CF-O-CF_2CF_2-SO_2F$ produced by Solvay. The PFSA ionomer dispersions contain its acid form ($-SO_3H$) and are

available in various solvent systems, EWs and concentrations.

These dispersions can be used to produce PEM fuel cell electrodes and electrochemical cell electrodes, to manufacture or repair ion exchange membranes, to produce super-acid catalysts, and for the surface treatment of PTFE membranes to improve wetting behavior.

Please visit Aquivion.com for more information.

General

Material Status	• Commercial: Active
Availability	• Asia Pacific • Europe • North America
Appearance	• Off-White
Forms	• Liquid

Physical

	Typical Value	Unit	Test method
Density (20°C)	1.15	g/cm³	ASTM D1475
Equivalent Weight (EW) ¹	940 to 1020	g/eq	Internal Method
HSE/Transport Classification	Corrosive		
Polymer Concentration	25	%	TGA
Solvent System	99% water, free of ethers	%	
Total Acid Capacity	0.980 to 1.06	meq/g	Internal Method
Viscosity (< 25°C)	< 25	mPa·s	ASTM D2196

Flammability

	Typical Value	Unit
Flammability - at ambient conditions	Non flammable	

Additional Information

HEALTH, SAFETY AND ENVIRONMENT

- Aquivion® PFSA dispersions are not harmful if used and handled according to standard processing procedures (see for example the "Guide to the Safe Handling of Fluoropolymer Resins" issued by the Society of the Plastics Industry). If handled improperly (e.g. overheating above 260°C (500°F) for an extended period of time), the dispersions may release harmful toxic chemicals. By their chemical properties Aquivion® PFSA dispersion grades are classified as hazardous material subject to transportation regulations (ADR, IATA, IMDG). Specifically D98-25BS is corrosive (R-SO₃H being a strong acid, measured pH < 2). Please refer to corresponding Material Safety Data Sheets (SDS) for more information on handling and safety.

PACKAGING, SHIPMENT AND STORAGE

- Aquivion® PFSA D98-25BS is available in 5 and 60 liter containers. It is recommended to store the product at 25°C (77°F) in a clean temperature-controlled and well ventilated environment, protected from direct sunlight and other sources of heat or irradiation. Containers should be kept tightly closed to avoid solvent evaporation.

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Notes

Typical properties: these are not to be construed as specifications.

¹ eq = mol SO₃H