



# General

*Solution type:* The fumion<sup>®</sup> FS dispersions are based on short-side chain per-fluorinated sulfonic acid / PTFE copolymer in the SO<sub>3</sub>H-form. The acid form shows cationic exchange properties. These materials are extremely hydrophilic and adsorb water and organic solvents as well.

*Application:* The fumion<sup>®</sup> dispersions display high chemical stability and high ionic conductance for use in fuel cell applications, electrolysis and batteries.

The dispersions are identified by polymer, solvent type and identification number (Lot-Number). Please refer to this type and identification number in case of queries.

## Handling

Before handling and processing the Material Safety Data Sheet should be noted. The fumion<sup>®</sup> dispersions are recommended to be stored between 0 and 30 °C in glass, plastic containers, ideally in a dry and temperature-controlled room, away from direct sunlight.

### **Delivery information**

Please note, the dispersions containing water as solvent only are not subject to transport regulations.



H319: Causes serious eye irritation.

### Physical and chemical data of the polymer

fumion®	unit	FS-720
chemical name of the material		Perfluorosulfonic acid – PTFE copolymer
chemical structure		Rf-O-CF <sub>2</sub> CF <sub>2</sub> SO <sub>3</sub> H
polymer type		cation exchange
counter ion		H⁺-form
ion exchange capacity	meq g <sup>-1</sup>	1.35 – 1.43

# Physical and chemical data of the dispersion

fumion®	unit	FSLA-725
appearance		transparent colorless liquid
solvent		water
concentration of the polymer	wt%	25 (± 0.5)
Water content	wt %	75 (+/- 1)
density of solution	g cm <sup>-3</sup>	1.15 (± 0.04)
viscosity (25 °C)	mPa s	15 - 20
Version <sup>a)</sup>	2.2	Valid from August 10 <sup>th</sup> 2022

a) Changes without prior notices may apply.

Note: Product is not certified for drinking water applications. The data are not measured directly on the item supplied. The data sheet does not release the customer of the necessity of a goods inwards control procedure. All information included in this data sheet is based on tests and data believed to be reliable. The data do not imply any warranty or performance guarantee. It is the user's responsibility to examine performance, suitability and durability of the product for the intended purpose. FUMATECH BWT GmbH does not assume any liability for patent infringement resulting from the use of this product. fumion<sup>®</sup> is a trademark of company FUMATECH BWT GmbH.

Hereby, it is certified that all results of the measured item comply with the margins of the internal specification defined in the technical datasheet. All measurements and data recording are conducted in accordance with standardized procedures following the ISO 9001 certification.



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