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| <p><b>MICROL<br/>P-CF-A</b></p>      | <p><b>Item no.:</b><br/><b>41 28 40</b></p>   |
| <p><b>Areas of application</b></p>   | <p><b>Microl P-CF-A</b> is especially developed for the use in <b>PALL-Membrane Filters</b>.</p> <p><b>Microl P-CF-A</b> is a liquid, alkaline product with organic and inorganic complexing agents, free of silicates, for the removal of organic residues in membranes of filter systems and reverse osmosis plants (RO).</p> <p><b>Microl P-CF-A</b> is based on a special structural materials to improve the soaking and the removal of the residues on the membranes.</p> <p><b>Microl P-CF-A</b> prevents the cleaning solution from precipitation of water hardness.</p> <p>Continuous cleaning cycles improve the stability of the membranes and ensure a consistent throughput.</p> |
| <p><b>Method of application</b></p>  | <p><b>Re-circulating cleaning system:</b></p> <p>Concentration: 1.0 – 3.0 %<br/>Temperature: 20 – 70 °C<br/>Time: 10 – 40 minutes</p> <p>For the increase of the cleaning efficiency we recommend the additional use of <b>Microl P-CF-H</b> as additive in the alkaline cleaning cycle (see Art.-No. 41 28 41 Technical Data Sheet).</p> <p>After having used the product rinse thoroughly with drinking water to remove any possible residues!</p> <p><b>Wet conservation:</b><br/>For wet conservation we recommend to fill the system with a 0.5 % solution of <b>Microl P-CF-A</b> or with <b>Microl P-CF-S</b>.</p>   |
| <p><b>Material compatibility</b></p> | <p>PVDF, PP, PE, Stainless Steel, Glass, Cast Iron, Tiles and membranes suitable for alkaline cleaning solutions.</p> <p><b>Microl P-CF-A</b> must not be used on aluminium and membranes made from cellulose and cellulose acetate.</p> <p>In addition, further material incompatibilities cannot be excluded. Therefore, test the product before use and ask the producer of the membrane if the product is compatible with the product.</p>  |

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| <b>Analysis of concentration</b>                                  | see titration method  |  |                                    |
| <b>Physical and chemical properties</b>                           |   |  |                                    |
| <b>Aspect/colour</b>  | Colourless  |  |                                    |
| <b>Form</b>   | Liquid  |  |                                    |
| <b>Odour</b>  | Odourless   |  |                                    |
| <b>Foaming behaviour</b><br>(see under conditions of application) | Not foaming   |  |                                    |
| <b>Phosphates</b>   | not applicable  |  |                                    |
| <b>Density (20°C) g/cm<sup>3</sup></b>                            | 1.345 – 1.365   |  |                                    |
| <b>Concentration</b>  | <b>1 % in H<sub>2</sub>O dest.</b>  | <b>3 % in H<sub>2</sub>O dest.</b>   | <b>5 % in H<sub>2</sub>O dest.</b> |
| <b>pH value (1 %, 20°C)</b>                                       | 12.5 – 13.1   | not applicable   | not applicable                     |
| <b>Conductance (1 %, 20°C) mS/cm</b>                              | 13.5 – 15.5   | 39.5 – 43.5  | 65.5 – 71.5                        |
| <b>Phenolphthalein alkalinity (ml)</b>                            | 5.9 ± 0.3 (1 % at 10 ml sample)   |  |                                    |
| <b>m-Value (ml)</b>   | not applicable  |  |                                    |
| <b>Storage stability</b>  | + 5°C – + 40°C  |  |                                    |
| <b>Remarks regarding biocides</b>                                 | <b>Not applicable</b>   |  |                                    |
| <b>Hazardous products</b>   | Potassium Hydroxide   |  |                                    |
| <b>Risk symbols</b>   |    |  |                                    |
|   | <b>DANGER</b>   |  |                                    |
| <b>Special remarks</b>  | <p>Always close the container with the original closure, and store the items in a cool area without solar radiation.<br/>         Product which was taken out of the container must never be poured back into the container.</p> <p><b>Read in any case our safety data sheet before using the product!</b></p> |  |                                    |
| <b>Disposal</b>   | Disposal acc. to official regulations, in case of doubt contact the manufacturer.   |  |                                    |

Please refer to our safety data sheets and our operating instructions with regard to precautionary measures, first aid measures and storage. The information given in the Sheet corresponds to the present state of our technical knowledge and experience. They do not constitute any guarantee; they are to be considered as basic information only. In particular they do not guarantee particular properties or the suitability for a concrete purpose. Because of the multitude of possible influences during the application of our products, the user has to make in any case the relevant tests and take the corresponding precautions. Any existing intellectual property rights are to be observed.