



## Product properties – Technical sheet

<b>FE 8 S/3</b> <b>THICK – FILM PHOSPHATING</b>	<b>Item no.:</b> <b>00 12 94</b>
<b>Areas of application</b>	<p><b>FE 8 S/3</b> is used in washing and phosphatising units to clean and phosphatise steel and cast iron parts.</p> <p><b>FE 8 S/3</b> produces on iron, steel and cast iron tight, iridescent yellowish to greenish-blue iron phosphate layers. The resulting iron phosphate acts as a temporary rust protection and in particular as a pre-treatment for a better adhesion of aqueous paints, usual paints containing solvents and powder paints.</p> <p>Also for aluminium, zinc and brass parts cleaned with this method the adhesion of the paints applied is better.</p> <p>Special components reduce the formation of sludge and deposits on the cleaned parts when the machine has stopped.</p> <p>Dry residues will be rinse off easily.</p>
<b>Corrosion protection</b>	<p><b>FE 8 S/3</b> has not any components for corrosion protection to prevent sensitive material from corrosion.</p>
<b>Method of application</b>	<p><b>Washing liquor control - depending on pH-value:</b>        pH – value: 4.0 – 5.2 depending on material        Conductance at new approach: 3.0 mS/cm – 16 mS/cm (change bath or thin down)</p> <p>Concentration: 1.0 – 2.0 %        Temperature: 40 – 75°C        Time: 1 – 3 minutes        Pressure: 0.5 – 2 bar</p> <p><b>Rinsing liquors:</b>        Rinse the phosphatised parts thoroughly with sufficient clear water to remove completely any phosphate in excess and water salts.</p> <p>To passivate the parts add <b>Rinsing Agent FE – Art. No. 000712</b> – to the penultimate rinse. A last rinsing with demineralised water to remove water salts improves the adhesion of paints.</p> <p>Allow the parts to dry by their natural heat or place them into a drying cabinet.</p>
<b>Material compatibility</b>	<p>PVDF, PTFE, PFA, PE, PP, PVC and glass.</p> <p><b>FE 8 S/3</b> changes surfaces of steel, aluminium and cast iron. The product is not suitable for polished surfaces; because of the pickling reaction, the surfaces become rough.        In addition, further material incompatibilities cannot be excluded. Therefore, test the product on an unimportant spot before its definite use.</p>

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<b>Analysis of concentration</b>	according to the titration instructions		
<b>Physical and chemical properties</b>			
<b>Aspect/colour</b>	Clear – Slightly Cloudy	Light Green – Green	
<b>Form</b>	Liquid		
<b>Odour</b>	Odourless		
<b>Foaming behaviour</b> (see under conditions of application)	Not Foaming		
<b>Phosphates</b>	Contained		
<b>Density (20°C) g/cm<sup>3</sup></b>	1.160 – 1.180		
<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>	2.2 – 2.8	n/a	n/a
<b>Conductance (1 %, 20°C) mS/cm</b>	20.2 – 2.7	4.5 – 5.5	6.5 – 8.5
<b>Phenolphthalein alkalinity (ml)</b>	9.15 ± 0.75 (1 % at 30 ml sample)		
<b>m-Value (ml)</b>	n/a		
<b>Storage stability</b>	+ 5°C to + 40°C		
<b>Remarks regarding biocides</b>	n/a		
<b>Hazardous products</b>	Orthophosphoric acid / Sodium 3-nitrobenzenesulphonate		
<b>Risk symbols</b>			
	<b>WARNING</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. 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.