



## TECHNICAL INFORMATION NOVAPHOS F75

Liquid Iron Phosphate for Mild Steel, Zinc & Aluminium

### A. DESCRIPTION

**Novaphos F 75** is a iron phosphatiser for soak, steam and spray applications for mild steel, zinc and aluminium. It is formulated for use at 60-65°C.

### B. APPLICATION

**Novaphos F 75** is designed for both two stage and multi stage phosphating systems. It should be used in conjunction with **Parco Cleaner 142/9** cleaner.

### C. SPRAY SYSTEM

#### Two stage system

Stage 1          Clean and phosphate concentration

(a)	Cleaner <b>Parco Cleaner 142/9</b>	0.1 to 0.5% v/v
(b)	<b>Novaphos F 75</b>	2 to 4% v/v
	Temperature	60 - 65°C
	Time	1 to 2 minutes
	pH	4 to 5 (normally 4.5)

Stage 2          Overflowing clean water

Rinse	
Temperature	Ambient

#### Three stage system

Stage 1          Clean and phosphate initiation concentration

(a)	Cleaner <b>Parco Cleaner 142/9</b>	0.1 to 0.5% v/v
(b)	<b>Novaphos F 75</b>	0.5% v/v
	Temperature	60 - 65°C
	Time	1 to 2 minutes

Stage 2	Phosphate concentration
<b>Novaphos F 75</b>	2 to 4% v/v
Temperature	60 - 65°C
Time	1 to 2 minutes
pH	4 to 5 (normally 4.5)
Stage 3	Overflowing clean water rinse temperature ambient

#### Four Stage Systems

In this system, the first three stages will be the same as a "Three Stage System" followed by either chromate or non chromate seal.

#### D. IMMERSION PROCESS

In soak systems a similar sequence is used, i.e., clean phosphate and rinse. Longer treatment times, however, are required.

#### E. EQUIPMENT RECOMMENDATIONS

Mild steel or stainless steel tanks are satisfactory for **Novaphos F 75**. Stainless steel nozzles are recommended in spray washers. DO NOT USE BRASS.

#### F. INITIAL MAKE UP

Before charging the tanks, make sure that the tanks, spray nozzles, pumps and heaters are clean. The system should be free of dirt or scale and the nozzles clean and directed properly.

Freshly made **Novaphos F 75** baths may be at a lower than recommended operating pH range. The pH can be adjusted to the desired range of 4 to 5 by using the addition of caustic soda.

#### G. SOLUTION CONTROL

Automatic dosing equipment supplied by Henkel will help in controlling the bath at a desired concentration.

Concentration of **Novaphos F 75** can be checked chemically by using the following procedure:

- (i) Take 10 ml of a **Novaphos F 75** solution sample in a beaker and add about 50 ml of water.
- (ii) Add 2 to 3 drops of phenolphthalein.
- (iii) Titrate with 0.1N NaOH until colour changes from colourless to red.
- (iv) Calculations: Titration (mls) x 0.5 = % v/v **Novaphos F 75**

#### H. PACKAGING

**Novaphos F 75** is packed in 25 L and 200 L Drums.

**I. SAFETY PRECAUTIONS**

**Novaphos F 75** contains moderately acidic materials. Contact with skin or eyes may cause irritation or burns.

Personnel should wear safety glasses, rubber gloves when working with **Novaphos F 75**

**J. WASTE DISPOSAL**

May require neutralising to a specified pH range before disposal.

**DISCLAIMER**

Any information given is, to the best of our knowledge, the best currently available, with respect to our products and their use, but it is subject to revision as additional knowledge and experience is gained. Such information is offered as a guideline for experimentation only and is not to be construed as a representation that the material is suitable for any particular purpose or use. Customers are encouraged to make their own enquiries as to the material's characteristics and, where appropriate, to conduct their own tests in the specific context of the material's intended use. This information is not a license to operate under nor is it intended to suggest infringement of any patent. We guarantee a uniform quality standard for this product. The only conditions and warranties accepted by Henkel in relation to this product or process are those implied by either Commonwealth or State statutes.