SUPERFOS FD

Issue 3

TECHNICAL DATA SHEET

Description

A liquid iron phosphating solution used to clean light soiling and deposit a lightweight conversion coating on steel and mixed metals prior to painting. If extra detergency is required, it should be used in conjunction with Superfos Additive.

The Control of Substances Hazardous to Health regulations 2002 (COSHH)

For a safety data sheet on this product please contact Cambrian Solvents by telephone, or by e-mail at lab@cambriansolvents.co.uk

Instructions for use

The components are sprayed with SUPERFOS FD solutions, normally at 5 points concentration, or immersed in a 10 to 20 point solution.

Typical make up	**5 point (spray)**	**10 point (immersion)**
SUPERFOS FD	17.5kg (14 litres)	35kg (28 litres)
Optional		
SUPERFOS ADDITIVE	0.5 - 2 litres	0.5 - 4 litres
Water	Up to 1000 litres	Up to 1000 litres
Caustic Soda	Small addition to adjust pH to between 4.8 and 5.4	Not applicable
Temperature	Ambient to 65°C, dependant upon the required coating weight.	40 to 65°C

Free Acid: 10-15% of total acid pointage.

Where the spray plant has two phosphating stages, it is normal to consider the first stage primarily as a cleaning stage and the second, primarily a phosphating stage. Accordingly, SUPERFOS ADDITIVE is put into the first stage. Where only one stage exists, it is desirable to keep the detergent concentration to a minimum.

Control

Total Acid: Titrate a 10ml sample of the working solution against 0.1N Sodium Hydroxide to the Phenolphthalein end point (colourless to pink). Each ml of Sodium Hydroxide required is considered 1 point. The addition of 2.9 litres Superfos FD per 1000 litres will raise the concentration 1 point.

Free acid: Repeat the total acid titration using Bromocresol Green. A correctly balanced 5 point solution will titrate to 0.5 to 0.75mls. The addition of 120mls Superacidet PLF will raise the free acidity by 0.1 points.

pH (spray only): If the pH of the Superfos FD solution varies outside the recommended range, it may be corrected by making very small additions of either caustic soda solution (to raise the pH) or Super Acidet PLF (to lower the pH).

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Equipment

Heavy gauge mild steel is acceptable to contain Superfos FD solutions although stainless steel is preferable. Pumps, valves, jets etc. must be acid resistant.