

ENGINEERING MATERIAL SPECIFICATION

Material Name

Specification Number

PHOSPHATE SOLUTION, ZINC, ACTIVATING AGENT
PHOSPHATE SOLUTION, ZINC, ACTIVATING AGENT,
LIQUID

ESK-M5B373-A
ESK-M5B373-A2

1. SCOPE

The materials defined by these specifications are activating agents for the zinc phosphating process.

2. APPLICATION

These specifications were released originally for materials used as activating agents to control crystallisation of zinc phosphate. The materials are added to the wash zone prior to dip or spray phosphating process.

3. REQUIREMENTS

3.1 STANDARD REQUIREMENTS FOR PRODUCTION MATERIALS

Material suppliers and part producers must conform to the Company's Standard Requirements For Production Materials (WSS-M99P1111-A).

3.2 COMPOSITION

	ESK-M5B373-A	ESK-M5B373-A2
Phosphate as P ₂ O ₅	39.0 +/- 4.0 %	3.8 +/- 0.5 %
Titanium Complex as Ti	0.9 +/- 0.2 %	0.06 +/- 0.03 %

3.3 TITRATION

3.3.1 ESK-M5B373-A	5.2 +/- 0.5 mL
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Titrate 10 mL of a 1 % by weight solution with 0.1 n hydrochloric acid (HCl).
Indicator: Bromcresol Green.

3.3.2 ESK-M5B373-A2	3.5 +/- 1.0 mL
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Titrate 10 mL of a 5 % by volume solution with 0.1 n hydrochloric acid (HCl) to pH 4.0.

Date	Action	Revisions
2002 08 26	Revised	Updated and renumbered
1995 01 10	EP00E10460377000	Complete revise, version A2 added K. Wolters
1987 12 18	SM/ EQ 1579 TP	Release C. Herriott

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3.4 pH VALUE

3.4.1	ESK-M5B373-A (1 % solution by weight at 20 ° C)	7.9 +/- 1
3.4.2	ESK-M5B373-A2 (5 % solution by volume at 20 ° C)	9.1 +/- 1 (5 %)

3.5 APPEARANCE

3.5.1	ESK-M5B373-A	white powder
3.5.2	ESK-M5B373-A2	milky liquid

4. GENERAL INFORMATION

The information given below is provided for clarification and assistance in meeting the requirements of this specification.

4.1 The phosphate system released by this specification consists of the following materials:

4.1.1	Phosphate Solution, Zinc, Activator	ESK-M5B370-A
4.1.2	Phosphate Solution, Zinc, Precleaner	ESK-M5B374-A
4.1.3	Phosphate Solution, Zinc, Alkaline Cleaner	ESK-M5B375-A or ESK-M5B372-A
4.1.4	Phosphate Solution, Zinc, Cleaner Additive	ESK-M5B358-A
4.1.5	Phosphate Solution, Zinc, Start Up	ESK-M5B368-A
4.1.6	Phosphate Solution, Zinc, Make Up	ESK-M5B369-A
4.1.7	Phosphate Solution, Zinc, Accelerator	S-M5B4514-A
4.1.8	Phosphate Solution, Zinc, Passivating Solution	SKM-5B9580-A or S-M5B4518-A
4.1.9	Phosphate Solution, Zinc, pH Correction	SKM-5B9580-B
4.1.10	Phosphate Solution, Zinc, Neutralizer	S-M5B4513-A
4.1.11	Phosphate Solution, Zinc, Sludge Conditioner	ESK-M5B335-A