

ENGINEERING MATERIAL SPECIFICATION

Material Name

Specification Number

PHOSPHATE SOLUTION, ZINC, ALKALINE CLEANER

ESK-M5B393-A

1. SCOPE

The material defined by this specification is an alkaline cleaner. It is supplied as white to yellow powder and used in zinc phosphate processes.

2. APPLICATION

This specification was released originally for a material used as metal cleaner in spray and/or dip phosphate equipments.

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 CHEMICAL COMPOSITION

Phosphate as P ₂ O ₅	11.5 +/- 1.5 %
Carbonate as CO ₃	3.3 +/- 0.5 %
Silicate as SiO ₂	18.8 +/- 1.5 %
Total Alkalinity as Na ₂ O	38.4 +/- 2.0 %
Wetting Agents	11.0 +/- 1.5 %
Titan as TiO ₂	0.1 +/- 0.02 %
Na Gluconate	7.0 +/- 1.0 %

3.3 pH-Value 12.8 +/- 1.0

3.4 TITRATION 11.7 +/- 1.0 mL

Titrate 10 mL of a 1 % by weight solution with 0.1 N hydrochloric acid (HCL).

Indicator: Bromocresol Green

Date	Action	Revisions
2002 08 28	Revised	Updated and renumbered
1992-04-01	EP00E10176266000	Release CD

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4. GENERAL INFORMATION

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

The material defined by this specification must be used with the following phosphate systems.

4.1 SPRAY PHOSPHATE SYSTEM

4.1.1	Phosphate Solution, Zinc, Start Up	ESK-M5B351-A
4.1.2	Phosphate Solution, Zinc, Make Up	ESK-M5B352-A
4.1.3	Phosphate Solution, Zinc, Accelerator Additive	ESK-M5B353-A
4.1.4	Phosphate Solution, Zinc, Accelerator	ESK-M5B354-A
4.1.5	Phosphate Solution, Zinc, Accelerator	ESK-M5B364-A
4.1.6	Phosphate Solution, Zinc, Neutralizing Agent	S-M5B4508-A
4.1.7	Phosphate Solution, Zinc, Precleaner Activator	ESK-M5B373-A or SK-M5B9613-A
4.1.8	Phosphate Solution, Zinc, Passivating Solution	S-M5B4518-A or SK-M5B9580-A/B

4.2 DIP PHOSPHATE SYSTEM

4.2.1	Phosphate Solution, Zinc, Sludge Conditioner	ESK-M5B335-A
4.2.2	Phosphate Solution, Zinc, Activator	ESK-M5B358-A
4.2.3	Phosphate Solution, Zinc, Start Up	ESK-M5B368-A
4.2.4	Phosphate Solution, Zinc, Make Up	ESK-M5B369-A
4.2.5	Phosphate Solution, Zinc, Activator	ESK-M5B370-A
4.2.6	Phosphate Solution, Zinc, Precleaner Activator	ESK-M5B373-A or SK-M5B9613-A
4.2.7	Phosphate Solution, Zinc, Precleaner	ESK-M5B374-A
4.2.8	Phosphate Solution, Zinc, Neutralizing Agent	S-M5B4513-A
4.2.9	Phosphate Solution, Zinc, Accelerator	S-M5B4514-A
4.2.10	Phosphate Solution, Zinc, Passivating Solution	S-M5B4518-A or SK-M5B9580-A/B