

ENGINEERING MATERIAL SPECIFICATION

Material Name

Specification Number

PHOSPHATE SOLUTION, ZINC, START UP

ESK-M5B376-A

1. SCOPE

The material defined by this specification is an aqueous solution containing essentially zinc phosphate.

2. APPLICATION

This specification was released originally for material used as start up material in dip phosphate equipment. This material is used in combination with ESK-M5B338-A Phosphate Solution Zinc, Make Up, ESK-M5B327-A Phosphate Solution, Zinc, Activator and S-M5B4509-A Phosphate Solution, Zinc, Accelerator.

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

Zinc as Zn	2.5 +/- 0.3 %
Nickel as Ni	1.7 +/- 0.3 %
Phosphate as P ₂ O ₅	25.0 +/- 3.0 %
Nitrate as NO ₃	3.6 +/- 0.3 %
Manganese as Mn	1.7 +/- 0.3 %

3.3 TITRATION

31.7 +/- 2.0 mL

Titrate 10 mL of a 6 % solution by weight with 0.1n sodium hydroxide (NaOH).
Indicator: phenolphthalein

3.4 DENSITY AT 20 °C (FLTM EU-BI 2-2)

1.42 +/- 0.04 kg/L

Date	Action	Revisions
2002 08 27	Revised	Updated and renumbered
1988 06 15	SM/EQ 4331 TP	Release

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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, Alkaline Cleaner	SK-M5B9604-A
4.1.2	Phosphate Solution, Zinc, Cleaner Additive	SK-M5B9608-A
4.1.3	Phosphate Solution, Zinc, Make Up	ESK-M5B338-A
4.1.4	Phosphate Solution, Zinc, Activator	ESK-M5B327-A
4.1.5	Phosphate Solution, Zinc, Accelerator	S-M5B4509-A
4.1.6	Phosphate Solution, Zinc, Passivating Solution	ESK-M5B326-A
4.1.7	Phosphate Solution, Zinc, Sludge Conditioner	SK-M5B9607-A