

TECHNICAL DATA SHEET

COR-PREP™ ZN

CONDITIONER FOR MICROCRYSTALLINE ZINC PHOSPHATE

COR-PREP™ ZN is used to promote the formation of fine, dense zinc phosphate coatings on aluminum, steel, and zinc alloy substrates.

Applications

COR-PREP™ ZN can be used in spray and immersion processes. Controlling the concentration of COR-PREP™ ZN, offers one the unique opportunity to achieve specified zinc phosphate coating weights.

Equipment

Holding tanks, piping, and pumps can be fabricated of mild steel, stainless steel, PVC or Polypropylene. Nozzles should be constructed from stainless steel or plastic.

Initial Charging Procedure

1. Fill the tank to two-thirds the final volume with clean, cool water. DI and RO water are preferred for improved tank life, but low conductivity city water may also be utilized.
2. Add the required amount of product slowly; agitate to mix thoroughly.
3. Add cool water to increase the volume to the operating level.
4. Continuous agitation is needed to keep COR-PREP™ ZN agglomerations from settling.

Benefits

- Promotes the formation of fine, dense crystals
- Longer bath life than traditional conditioners
- Controls zinc phosphate coating weights

Health, Safety and Handling

Please consult the Safety Data Sheet (SDS) for information on storage, safe handling and disposal. The conditions or methods of handling, storage, use and disposal of the product are beyond our reasonable control - we assume no liability for any ineffectiveness of the product or any injury or damage, arising out of or in connection with these conditions.

Physical Properties

PROPERTY	TYPICAL VALUE	UNIT
Appearance	Viscous, White Liquid	
Density	9.67	lbs/gal

Operating Conditions

PROPERTY	TYPICAL VALUE	UNIT
Concentration	0.5 - 3.0 (per 1,000 gallons of operating bath)	gal
Temperature	Maintain below 120	°F
Time	20 - 60	seconds
pH	Maintain at or above 6.0 pH	



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Solution Control

Materials required:

- 50 ml Graduated Cylinder (LAB-220-050)
- 25 ml Burette Automatic: (LAB-200-030)
- 125 ml Erlenmeyer Flask Glass (LAB-110-015)
- pH5 Acetate Buffer (LSS-076-QT)
- Xylenol Orange Solution (LRS-205)
- Concentrated Nitric Acid (LRS-136)
- 0.01 M EDTA Solution (LTS-040-QT)

Procedure

1. With a graduated cylinder, sample 50 ml of the COR-PREP™ ZN bath and transfer to a 125 ml Erlenmeyer flask.
2. Add 1-2 drops of concentrated nitric acid and mix. The solution should turn clear.
3. Add 25 ml of the pH5 Acetate Buffer and 8-10 drops of Xylenol Orange Solution to the flask. The solution should exhibit a red/reddish-orange color.
4. Titrate with 0.01M EDTA to a yellow endpoint.
5. The number of mls needed to reach the yellow endpoint multiplied by 0.17 is the concentration of COR-PREP™ ZN (expressed as gallons/1000gallons).

0.01 M EDTA (MLs)	CONCENTRATION (GAL / 1000GAL)
2.9	0.5
5.9	1.0
8.8	1.5
11.8	2.0
14.7	2.5
17.6	3.0

Replenishing

A bath charged at 2.0 gal/1000gal will have a titration of about 11.8 ml.

The addition of 1 gallon of the COR-PREP™ ZN per 1,000 gallons of bath will increase the strength by approximately 5.9 ml.

Precautionary Information

Consult the product Safety Data Sheet for all safety and handling information prior to using this product.

Disposal After Use

Check your state, local and federal regulations on waste disposal to ensure compliance before disposing of any Coral product. Consult Coral if you are not sure how to treat this product for waste disposal.

All reasonable care has been taken to ensure this publication is accurate upon issue. Such information may be affected by changes subsequent to issue. This Technical Data Sheet is to be used solely for this product. Prior to any use, consult the Safety Data Sheet (SDS) for information on hazard risks and product use parameters. All liability and all warranties express or implied are hereby excluded as to product performance results, the accuracy of these data including any warranty of merchantability or fitness for any purpose.

