

MICRON MP-100

MICRON ZINC PHOSPHATE TREATMENT

MP-100 is a MICRO CRYSTALLINE zinc phosphate compound. It is used for bonding paint AND providing corrosion inhibition primarily for steel, MP-100 can be used in immersion or spray systems prior to powder coat, e-coat, and other paints, coatings and bonding applications. MP-100 is an advanced technology product for use in pretreatment operations requiring premium preparation and quality.

MEETS SPECS OF Federal Spec TTC-490 Type I, AND TOYOTA # HTH-7500 For Fine Grain Coatings. **Provides quality performance as called out in automotive specs such as FIAT (Chrysler) PS-508 and others.**

MP-100 is zinc enriched, including surface activators to achieve maximum quality on coated surfaces. Small amounts of zinc galvanize and aluminum may be processed in MP-100 with additional additives.

Features & Benefits

- High resistance to sludging, Low Sludge.
- Use with accelerator #40, nitrogen activator.
- (MEETS TYPE 1: 150 - 500 MG/FT, & TYPE V: 300-1100 MG/FT)
- MICRO SMOOTH coatings, providing a functional advantage Meets various automotive, government and military specifications (TTC-490E TYPE I & V, Zinc coatings) .
- Offers Coating Weight Flexibility
- Improved Performance of Paints & Coatings Consistent, Repeatable Performance

Typical Processing

	<u>Spray Process</u>	<u>Immersion</u>
1. PRE-CLEAN,	HDS-1023.	LS-150 2)
2. Rinse,	(Maintain less the .5 points total alkalinity fresh rinse)	
3. Optional	Grain Refiner Toner TA-10	
4. MP-100 Zinc,	14-20pts TA, Ratio 14-20	20-30pts TA, Ratio 10-14
i. Acc Pts:2.0-10.0		Acc pts. 2.0-10.0
5. Rinse < 100 f.,	optional second rinse preferred.	
6. FINAL SEALER RINSE:	NCS, .5%, PH 9+, s , 1,000 Mhos.TO PAINT AND COATING.	



Product Bulletin

Product Name: MICRON MP-100

Product Code: 2202913

Revision Date: February 14, 2026

Specifications

pH	1
Prod._Type	Liquid
Spec.Grav	1.42
LBS./GAL	11.84
FOAM 0=low 9=high	0
Shelf life years:	10
Freeze information	Not damaged by freezing

Packaging

Container Type	POLY
Net Units	650
Tare Wt.	25 LB.
Gross Wt.	675
Dot_Name	UN 3264, Corrosive Liquid, Acidic, inorganic, N.O.S., (Phosphoric & Nitric Acids),8, PG II,
DOT Hazzard	Corrosive
Tariff ID	n/a

Use parameters

Concentration Range	2-6% by volume Temperatur
Range	120-170 F.
Time Range	1.5-4 minutes
Agitation	Spray or circulate.

Other information

It is important that the **OSHA DATA, "Material Safety Data Sheet"** be carefully read and reviewed with the users of this product. OSHA data is required to be posted in the work area by law.

Waste Disposal

Remove Metals, Treat for PH, ETC

Holding Tank Materials of Construction

Acid resistant, stainless or poly

Testing, Operating & Troubleshooting Data

New Tank Make-up:

Fill Tank With Water Leaving Enough Room For 3-4% By Volume Of Mp-100. (3-4 Gallons Per 100 Gal). Add 1/8-1/4 % Of Accelerator #40 Prior To Heating Bath. Process May Begin When Titrations And Operating Temperature Has Been Reached. Adjust Ratio To Operating Range With 10% Water Diluted Ph Adjuster #14 (sodium Hydroxide) Note: The Addition Of 1 Quart (500 Mls) Per 100 Gallons Will Raise Ratio By: 1 Point

Titration Procedures:

Total Acid:(Range 14-20 Spray Or 20-30 Immersion)

- 1) Take A 10 MI Sample
 - 2) Add 3-5 Drops Total Acid Indicator (phenol Indicator).
 - 3) Titrate With 0.1 N Naoh (caustic Soda) (color Will Change From Clear To Pink)
 - 4) Number Of Mls Used = Total Acid
- To Raise Total Acid 6 Points : Add 1% (1 Gallon) Of Mp 100 Per 100 Of Bath)
Note: If Large Additions Are Made It May Require Adds Of Caustic To Adjust Ratio

Free Acid:(range Per The Ratio Target)

- 1) Take A 10 MI Sample
- 2) Add 5-10 Drops Of Bromophenol Blue
- 3) Titrate With 0.1 Naoh (caustic Soda) (color Will Change From Yellow To Blue)
- 4) Number Of Mls Used = Free Acid

Acid Ratio: (range 14-20 Spray Or 10-14 Immersion)

Maintain An Acid Ratio Of Ta/fa = 14-20

Adjust Ratio To Operating Range With 10% Water Diluted Ph Adjuster #14 (sodium Hydroxide)

Note: The Addition Of 1 Quart (500 Mls) Per 100 Gallons Will Raise Ratio By: 1 Point

Zero Iron: Zero Iron

Use White Iron Test Papers, Dip Paper Into Bath

If Paper Turns Red = Iron

If Paper Stays White = Zero Iron

Note: The Accelerator Test Procedure Is The Same Test For Both Accelerator And Iron. Make Sure The Bath Is On The Zero Iron Side To Determine The Amount Of Accelerator In The Bath, Not Iron.



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Accelerator Test:

Accelerator Points Using .042n Permanganate: Range = 2.0-15 (1/4% Add = 9 Points)

Accelerator Points Using .189n Permanganate:

Range = 0.4-2.0 (1/4% Add = 2 Points) Bong Gas

Type Bulb Test = Same As .042 Permanganate =
2.0-15

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- 1) Take A 25 ML Sample
- 2) Add 5-10 Mls Of 50% Sulfuric Acid
- 3) Titrate With 0.042n/.189n Potassium Permanganate (obtain A Permanent Pink Endpoint)
- 4) Number Of Mls Used = Accelerator Points

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Our People. Your Problem Solvers.

For more information on this process,
please call us at 203.756.5521 or email: techservice@hubbardhall.com

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