Phos & Clean HS-333

STEAM & CLEAN PHOSPHATE TREATMENT. HS-333 is a HIGH SOLIDS metal cleaner and iron phosphate treatment for use in steam cleaners, pressure wash-wand units, and soak tanks. Excellent grease, oil, and soil removal. HS-333 provides a higher level of acceleration for Non-Ferrous Metals (Aluminum) as well as extruded Aluminum.

HS-333 provides paint and coating preparation which bonds and enhances corrosion resistance of large hard to finish products. For use on all metals of steel, zinc, galvanize, and aluminum.

HS-333 meets all specifications requiring a cleaner/iron phosphate treatment. Coating weights of 40-75 mg/ft. (9/04) HS-333 meets: AMS-2480-F, MIL TTC-490 TYPE II, AAMA 2603-02.

Features & Benefits

Rapid cleaning and providing an amorphous iron phosphate coating.
Easily removes difficult oils, greases, smut, light rust and films.
MILDER TO EMPLOYEES AND NO STRONG ODORS.
Liquid which is easily mixed into feeders and mixing valves.
Provides superior corrosion resistance and bonding of paints.
Attacks difficult smut and surface residues.

Can be used on steel, aluminum and zinc galvanize.
Meets requirements of government and automotive specifications.

Physical Data

Specific gravity	1.12
Product Type	Liquid
PH	~3.5
LBs/Gal	9.34
Foam, 0=Low 9=High	9
Shelf Life Years	10 Years
Freeze Information	Not Damaged by Freezing

Operating Conditions/Typical Processing

1) Air “blow-off” unit to be cleaned and phosphate coated.
2) Apply HS-333 at: Steam 1/2-3% for 30-120 sec.
   Soak 3-5% for 2-5 minutes
   Temperature = 120-212 Deg. F.
   PH = 2.5-5.0
3) Apply evenly to the surface. If items are large start at the bottom.
4) (OPTIONAL) Rinse with warm water and dry completely to prevent rusting or oxidation. Note a sealer rinse can be used such as NCS-Z1 for extended salt spray results (AAMA 2603 Spec)
5) Dry

Packaging

Container Type	POLY
Net Units	513
Tare Wt.	25 Lb
Gross Wt.	545
DOT_NAME	Not regulated by DOT
DOT Hazard	Not Regulated

Use Parameters

Concentration Range	2-5% by volume
Temperature Range	120-212 F.
Time Range	30-120 seconds
Agitation	As necessary

Waste Disposal

NEUTRALIZE PH, REMOVE FATS, OILS, GREASE AND HEAVY METALS

Holding Tank Materials of Construction:

ACID RESISTANT, STAINLESS, OR POLY

Testing, Operating, & Trouble Shooting Data

Dropper Test: Order Test Kit #100

1) Take A 5 Ml Sample
2) Add 3-5 Drops Of Phenol Indicator
3) Add Drop By Drop Of 1.0n Naoh, Counting The Drops Until The Color Changes To A Permanent Pink.
4) The # Of Drops Required Divided By 2 = % By Volume
   10 Drops = 5%
   8 Drops = 4%
   6 Drops = 3%
   4 Drops = 2%

Titration Procedure:

1) Make Sure The Ph Is Within Operating Range
2) Take A 10ml Sample,
3) Add Phenol Indicator
4) Titrate With 0.1n Naoh.
5) The # Of Mls Multiplied By A Factor Of 0.6 = % By Volume.
   Target 3-5% Typical

Ph Targets (immersion & Recycle Systems) Target 4.5-5.4

Maintain Ph Below 5.4
**a New Tank Will Have A Lower Ph, Typically 3.0-3.5. Allow Ph To Drift Upwards By Processing Work. Once The High End Range Has Been
Achieved Add Hs-333 To Lower Into The Typical Operating Range Of 4.5-5.0

Neutralization Of Hs-333 (disposal)

To Neutralize A 5% Solution Of Hs-333 From A Ph Of 5.0 To:

To A Ph Of 7.0: Add ½ Gallon Of Ph Adjuster #14 Per 100 Gallons Of Working Solution Of Hs-333 (@ 5% With A Ph Of 5.0)

To A Ph Of 8.0: Add ¾ Gallon Of Ph Adjuster #14 Per 100 Gallons Of Working Solution Of Hs-333 (@ 5% With A Ph Of 5.0)

**it Is Best To Add Small Increments Of Diluted Ph Adjuster 14 Slowly And Check The Ph As You Go. This Will Help Prevent Overshooting

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.

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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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