



Power Clean PFG-3

LOW FOAM MULTI-METAL CLEANER-INHIBITED. PFG is a heavy duty, low foam, surface cleaner for steel, plastic, aluminum and galvanize zinc surfaces. Film free rinsing. Excellent grease oil removal. Inhibited for extended rust & stain protection. Offers low temperature processing where ambient washing is being considered.

PFG is a superior high performance product which provides low cost of operation and premium quality. Long solution life for maximum low cost and productivity.

PFG can be used in many different types of processing operations where a low foam product is preferred. Can also be used on aluminum and zinc galvanize

Features & Benefits

Non-Phosphated and Biodegradable.

No strong odors. Provides maximum corrosion protection.

Provides rust and oxidation protection to steel and other metals.

Low foam over a wide temperature operating range of 90-180 deg. F.

Easily treated in wastewater treatment processes. Splits oils.

Low use cost. Ability to process all surfaces with one cleaner.

If used in cold applications , (< 90 f.) we recommend having DEFOAMER 109 (or other defoamer) available in the event foaming is an issue. This would likely be caused if washer operates at high pressures, re: 20+ psi.

Physical Data

Specific gravity	1.12
Product Type	Liquid
PH	12.5
LBS/Gal	9.34
Foam, 0=Low 9=High	1
Shelf Life Years	10 Years
Freeze Information	Not Damaged by Freezing

Operating Conditions/Typical Processing

- 1) Spray washers: 60-90 seconds, ambient - 135 deg. F., 2-5% by volume.
- 2) Rinse, cool to warm



3) Dry-Off and continue processing or apply “Storage Stain Inhib. Rinse”

VIBRATORY FINISHING BOWLS: 1/2-2% by volume.

SOAK TANKS: , 8-10% by volume, 150 deg. f. , 5-10 minute

COOLANT SUMP CLEANOUT: 2-10% BY VOLUME AND CIRCULATE

Parts going to storage should be kept dry, covered or boxed, preferably with VCI paper and free of exposure to water.

Packaging

Container Type	POLY
Net Units	515
Tare Wt.	25
Gross Wt.	548
DOT_NAME	UN 1814, Potassium Hydroxide Solution,, 8, PG II
DOT Hazard	Corrosive

Use Parameters

Concentration Range	3-5% by volume
Temperature Range	90-180 F.
Time Range	30-120 sec
Agitation	As required

Waste Disposal

NEUTRALIZE, REMOVE METALS IF PRESENT

Holding Tank Materials of Construction:

ACID RESISTANT, STAINLESS OR POLY



Testing, Operating, & Trouble Shooting Data

Refractance Chart

10% = 1.6

5% = 0.8

2.5% = 0.4

Free Alkalinity Titration:

Take A 10 MI Sample, Add Phenol Indicator

Titrate With 0.1 N Acid Until The Color Changes Permanently.

The # Of Mls Required Multiplied By Factor Of 1.04 = % By Volume.

Total Alkalinity Titration:

Take A 10 MI Sample, Add Total Alkalinity Indicator Or Bromo Purple

Titrate With 0.1 N Acid Until The Color Changes Permanently.

The # Of Mls Required Multiplied By Factor Of .96 = % By Volume.

Free Alkalinity Dropper:

Take A 10 MI Sample, Add Phenol Indicator

Add Drop By Drop Of 1.0n Acid Until The Color Changes From Pink To Colorless.

The # Of Drops Required Divided By 2 = % By Volume.

Total Alkalinity Dropper:

Take A 10 MI Sample, Add Bromo Purple Indicator

Add Drop By Drop Of 1.0n Acid Until The Color Changes From Pink To Colorless.

The # Of Drops Required Divided By 1.8 = % By Volume

Bath Control Alkalinity Ratio: Maintain <3.0

Maintain Total/free Alkalinity Ratio

1) A Newly Prepared Bath Has A Particular Ratio (Pfg3 Has A ~1:1 Ratio)

2) A Decanting Or Dumping The Bath Consideration Could Be Given When The Ratio Becomes Greater Then 3.0. Ta Points Divided By Free Alkalinity Pts

Example: Total Alkalinity= 6% By Volume And Free = 2% By Volume.

Some Process Specifications Note That This Ratio Could Be A Determining Factor As To When A Cleaner Could Be Decanted And Replenished As New "fresh".

(Note: The Theory Is The Excess Ratio Is Developed By Accumulated "carbonate Alkalinity" That Can Be Considered Not As Active As The Ratio Goes Over 3.0)

**Bath Control Refractance/contaminants Ratio: (target <2.0)**

- 1) Multiply The % Concentration By A Refract Factor Of .18 (% Concentration Determined From Free Alk Factor Above)
- 2) Record Results As **R1= Target Refractance**
- 3) Take A **Refractance** Reading Of The Bath. Record The Number As R2 .
A **Refractance R2** Number Over The (r1)**target Refractance** Number = Level Of Contaminants.
- 3) Formula: $R2/R1 = \text{Refractance/contaminant Ratio: Target} < 2$

Example: A 5% Solution Of Pfg

Target Refract (r1) = 0.9 (5 X .18 Factor)

Refractance Of Bath (r2) = 1.8

R2 Divided By R1 = 2.0 Ref/cont. Rati

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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