342 AC Acid Cleaner
Aluminum Brightening

ALTERNATE NAMES

Mineral Acid Cleaner, Aluminum Cleaner, Phosphoric Acid, Pre-Bright Dip Cleaner

DESCRIPTION

342 AC is a clear phosphoric acid-based liquid with an organic odor and a density of approximately 10.8 pounds per gallon. 342 AC is an environmentally friendly cleaner with low foam retention and free of NPE.

PHYSICAL COMPOSITION	
CHEMICAL NAME(S)	**% BY WEIGHT**
Phosphoric Acid, as H_3PO_4	~ 43

SPECIFICATIONS			
	MIN	**MAX**	**UNITS**
Assay as H_3PO_4	42.0	45.0	%
Specific Gravity at 60/60°F	1.28	1.30	-
Cloud Point	95	-	°F

PACKAGES 55-gallon drum, bulk

SHIPPING Refer to SDS

SAFETY, STORAGE & HANDLING Refer to SDS

APPLICATIONS & OPERATING GUIDELINES

Application – For the superior removal of ground-in buffing compounds and drawing oils left after extruding, drawing, stamping or rolling aluminum. 342 AC is designed as a second stage cleaner following a mild, non-etching alkaline cleaner, but it may be used as a single stage cleaner where the soil load is light.

Addition – 342 AC is designed to operate at 8-9% by volume diluted with water.

Operation – Recommended operating temperature is 120-160 °F, depending on the amount of cleaning action desired. An increase of 20 °F approximately doubles the amount of cleaning action. For uniform results, accurate temperature control is desirable. Suggested immersion time is 2 minutes.

The cleaner tank should be of such construction as to hold phosphoric acid at the operating temperature required. 316L Stainless Steel, rubber-lined steel or fiberglass is recommended.

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CLEANER BATH ANALYSIS

Reagents Required:

1. Sodium Hydroxide Solution (NaOH), 0.5N
2. Indicator Solution (Bromophenol Blue): Dissolve 0.1 g Bromophenol Blue in 7.1 ml of 0.02N Sodium Hydroxide and dilute to 250 mL with distilled water.

Apparatus Required:

1. 250 mL Erlenmeyer flask
2. 10 mL burette
3. 10 mL pipette

Procedure:

1. Pipette 10 mL of the acid cleaner solution into the 250 mL Erlenmeyer flask.
2. Add about 40 mL of water and 2-3 drops of the indicator.
3. Titrate with the 0.5N Sodium Hydroxide (NaOH) to the end point (change from greenish yellow to the first distinct blue color or pH 4.5).

Calculation:

% cleaner (by volume) = mL of 0.5N NaOH x 0.92.

FOR FURTHER INFORMATION OR TECHNICAL ASSISTANCE

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Product is manufactured by the following subsidiary of Nutrien Ltd.:

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