



Lusterclean 11 L

Lusterclean 11 L is a liquid concentrate which may be used as an electrolytic cleaner, soak cleaner or cleaner/deruster of ferrous metals in either rack or barrel line. This product could split mineral based oils, thereby extending the life of the solution.

Features & Benefits

Silicate Free	Ideal for cleaning prior to heat treating
Highly Chelated	Effective at de-rusting and descaling steel
High Conductivity	Effective for electro-cleaning

Physical Data

Specific gravity	1.28
Solubility in water	Complete
Appearance and odor	Dark brown, mild odor
pH 10% solution	12.0 – 13.0
pH concentrate	14.0

Operating Conditions

Immersion (Rack or Barrel)

Concentration	6% – 35%
Temperature	130°F – 200°F
Time	1 – 6 minutes
Equipment	Mild steel tanks and heating coils
Ventilation	Suggested

Notes:

1. Skimming off soils is recommended when Lusterclean 11 L is being used in a soak operation.



2. When Lusterclean 11 L is being used as cleaner/deruster operating concentration should be in excess of 30% by volume.

Scale or rust removal for steel and iron by electrolytic cleaning

This is accomplished by an immersion method, anodic cleaning, or by periodic reverse cleaning.

Heavier rust and scale will require anodic or the periodic reverse electro-cleaning.

Anodic Electro-Cleaning

Concentration	10% – 25%
Temperature	130°F – 200°F
Current Density	20 – 80 amps/ft ²
Electrodes	Graphite type AGX are preferred, or 316 Stainless Steel
Anode to Cathode ratio	1:1
Tank	Mild steel, Lined Steel preferred
Heating and cooling	316 Stainless Steel, bent pipe
Barrels	Lucite, Tempron, or Polypropylene
Tumbling barrels	Steel, Koroseal, Rubber, or Neoprene Lined
Racks	Steel or Stainless Steel, Titanium, or steel tip plastisol coated

Periodic Electro-Cleaning

Concentration	10% – 30%
Temperature	130°F – 200°F
Current Density	20 – 80 amps/ft ²
Electrodes	Graphite type AGX are preferred, or 316 Stainless Steel. Periodic cycle should provide equal time on each polarity. 5 – 10 second intervals have been found to be satisfactory cycle.
Polarity	Periodic cycle should provide equal time on each polarity. 5 – 10 second



	intervals have been found to be a satisfactory cycle.
Anode to Cathode ratio	1:1

Note: Must end the cycle on the anodic side

Consumption of the cleaner is affected by reaction with soils, neutralization of fatty acids, and drag out of the cleaner solution. Additions to maintain desired concentration are recommended.

Titration Method

1. Pipette a 10 mL sample into a 250 mL Erlenmeyer flask and dilute with 50 mL of distilled water.
2. Add 4 drops Methyl Orange indicator and mix.
3. Titrate with 0.5 N Hydrochloric Acid until the color changes from orange to pink.
4. Record mL used.

Calculation

$$\text{Concentration} = \text{mL of } 0.5 \text{ N HCl} \times 0.84$$

Test Kit Method

1. Fill bottle 1/3 full of water. Add 1/2 mL of Lusterclean 11 L using syringe provided.
2. Add 8 to 10 drops Methyl Orange indicator
3. Add 0.72 N Hydrochloric Acid dropwise and record number of drops required for color change.
4. Record the number of drops used.

Calculation

$$\text{Concentration} = \# \text{ Drops of } 0.72 \text{ N HCl} \times 1.11$$

Waste Disposal

Discharge rinse waters and spent solutions to a permitted disposal system. In order to be completely informed on the latest regulations for your area, please contact the local authorities.



Caution

Lusterclean 11 L is an alkaline product and should be handled accordingly. Avoid skin and eye contact. Wear protective clothing, goggles and gloves. Flush exposed areas immediately with clean cold water. Contact a doctor promptly in case of injury. Consult SDS for details.

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For more information on this process,
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