



Lusterclean™ 11L

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

Features & Benefits

- Liquid form makes it easy to add. No dangerous splatters or dissolution problems
- Oil splitting
- May be used for rust and scale removal from steel
- Low sludging
- Free of cyanides, chromates, chlorinated, or hydrocarbon solvents
- Silicate and phosphate free; ideal where heat-treating follows cleaning operations
- Biodegradable surfactant systems

Typical Applications

- Used in job and captive shops where oil is removed and accumulated
- Heat treat operations
- Good cleaner/ de-ruster for steel

Operating Conditions

Immersion (rack or barrel) for either cleaner or cleaner/de-ruster

Concentration	6 to 35% by volume
Temperature	130° to 200° F
Time	1 to 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 may be accomplished by either an immersion method, anodic cleaning or by periodic reverse (p.r) cleaning. Heavier rust and scale will require anodic or the p.r. electro cleaning.

• Anodic electro cleaning parameters

Concentration	10 to 25% by volume
Temperature	130° to 200° F
Current density	20 to 80 amps/ft ²
Electrodes	graphite type agx (national carbon) are preferred, alternate - stainless steel type 316
Anode to cathode ratio	1 to 1

Tank	steel, rubber lined steel preferred
Heating and Cooling	stainless steel type 316, bent pipe
Barrels	lucite, tempron, or polypropylene
Tumbling barrels	steel, koroseal, rubber or neoprene lined
Racks	Steel or Stainless Steel, Titanium or steel tips plastisol coated.

• Periodic electro-cycle

Concentration	10 to 30% by volume
Temperature	130° to 200° F
Current density	20 to 80 amps/ft ²
Polarity	periodic cycle should provide equal time on each polarity. Five to ten second intervals have been found to be a satisfactory cycle.

Note: (1) must end the cycle on the anodic side

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Barrels	lucite, tempron, or polypropylene
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Control

Titration Procedure

1. Pipette a 10 ml. Sample into a 250 ml Erlenmeyer flask and dilute with 50 mls. 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.

$$\text{MLS OF 0.5 N Hydrochloric Acid X 0.84} = \% \text{ BY VOLUME}$$

Test Kit Method

1. Fill bottle 1/3 full of water. Add 1/2 ml of Lusterclean™ 11 L using syringe provided.
2. Add 8-10 drops Methyl Orange indicator
3. Add 0.72 N Hydrochloric Acid dropwise--record number of drops required for color change.

$$\% \text{ VOLUME} = 1.11 \text{ X NUMBER DROPS OF 0.72 N Hydrochloric Acid}$$

Waste Disposal

Discharge to a 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 MSDS for details.

WARRANTY: THE QUALITY OF THIS PRODUCT IS GUARANTEED ON SHIPMENT FROM OUR PLANT. IF THE USE RECOMMENDATIONS ARE FOLLOWED, DESIRED RESULTS WILL BE OBTAINED. SINCE THE USE OF OUR PRODUCTS IS BEYOND OUR CONTROL, NO GUARANTEE EXPRESSED OR IMPLIED IS MADE AS TO THE EFFECTS OF SUCH USE, OR THE RESULTS TO BE OBTAINED.



Our People. Your Problem Solvers.

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

Hubbard-Hall holds certifications for **ISO 9001:2015**, Responsible Distribution, as accredited by the **ACD** (Alliance for Chemical Distributors) and as a **Women-Owned Small Business**, as well as maintaining an association with **Omni-Chem**¹³⁶.