

Henkel

**Surface
Technologies**

HENKEL Australia Pty Ltd
A.C.N. 001 302 996

135-141 Canterbury Road
KILSYTH VICTORIA 3164

Tel: (03) 9728 7200
Fax: (03) 9728 5877
Customer Service 1 300 736 777

Distributed by
Solvents Australia Pty Ltd
ABN 74 003 523 117
77 Bassett Street
Mona Vale NSW 2100
PO Box 928 Mona Vale NSW 1660
Tel: (02)9979 6866
Fax: (02)9979 6864

TECHNICAL DATA BULLETIN

NOVOX LF ACID ETCH CLEANER FOR ALUMINIUM

Novox LF is a specially formulated acid etch cleaner for aluminium in soak application. It simultaneously cleans and lightly etches aluminium.

1. WHERE TO USE

Novox LF is primarily formulated for those processors and fabricators who do not require a deep etch for their finishing process. This makes **Novox LF** ideal to use as a paint pre-treatment step before chromate conversion coating.

Novox LF contains strong surfactants so there is no need for separate degreasing. However, if metal to be treated is very oily, then an alkaline cleaner prior to acid etching may be necessary. The mixed acid system of **Novox LF** gives a smut free surface on commercial grades of aluminium.

2. TANK CONSTRUCTION

Novox LF contains an inhibitor which enables it to be used in stainless steel tanks. Stainless steel tanks or mild steel tanks lined with acid resistant materials such as PVC or fibreglass are recommended materials for tank construction.

3. HOW TO USE

Concentration	-	5 to 10% v/v
Temperature	-	Ambient
Time	-	Up to 10 minutes

The concentration and contact time should be adjusted to obtain desired results. Typically 7% v/v concentration and 5 minutes contact time can be used as a guide. Where contact time is restricted such as in coil coating, concentrations of 12 – 20% v/v may be used, with typical contact times from 10 to 30 seconds.

4. CONTROL

A. Free Acid

- (a) Take 10 ml sample of **Novox LF**
- (b) Add 100 ml of water
- (c) Add 2-3 drops of Bromophenol Blue Indicator.
- (d) Titrate with 1.0N Sodium Hydroxide until yellow colour changes to blue.

Calculation - % v/v **Novox LF** = number of mls of Sodium Hydroxide x 1.6.

B. Total Acid (optional)

- (a) Take 10 ml sample of **Novox LF**.
- (b) Add 100 ml of water.
- (c) Add 2 – 3 drops of Phenolphthalein Indicator.
- (d) Titrate with 1.0N Sodium Hydroxide from colourless to a pink colour.

No. of mls of Sodium Hydroxide = A.

Add 20 mls Reagent Solution 37, if aluminium present solution will go bright pink.
Titrate with Titrating Solution 20 until colourless – Titration B

Calculation - % v/v **Novox LF** = $\frac{(A - B)}{3} \times 1.6$

5. SAFETY

NOVOX LF is highly corrosive. Avoid contact with skin and eyes. Avoid breathing its vapour.

If poisoning occurs, contact a doctor or Poisons Information Centre.

If swallowed, DO NOT induce vomiting. Give a glass of water. If skin contact occurs, remove contaminated clothing and wash skin thoroughly. If contact with eyes occur, flush water for 15 minutes and call a doctor.

6. PACKAGING

NOVOX LF is packed in 25 litre and 200 litre drums.

DISCLAIMER

Any information given is, to the best of our knowledge, the best currently available, with respect to our products and their use, but it is subject to revision as additional knowledge and experience is gained. Such information is offered as a guideline for experimentation only and is not to be construed as a representation that the material is suitable for any particular purpose or use. Customers are encouraged to make their own enquiries as to the material's characteristics and, where appropriate, to conduct their own tests in the specific context of the material's intended use. This information is not a license to operate under nor is it intended to suggest infringement of any patent. We guarantee a uniform quality standard for this product. The only conditions and warranties accepted by Henkel in relation to this product or process are those implied by either Commonwealth or State statutes.

Ref. NOVOXLF/AR/SG

Issue Date : 27th July 2001

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