

TURCOFORM[®] ETCHANT 9H-L

LIQUID CAUSTIC ALUMINUM ETCHANT

DESCRIPTION:

TURCOFORM ETCHANT 9H-L is equivalent to a 50% water solution of the dry flake TURCOFORM ETCHANT 9H. It was developed to provide a convenient means to charge and rejuvenate caustic chemical milling baths for aluminum.

Do not store where temperature will fall below 10°C. Heat will be required to prevent crystallization or to dissolve crystals before use if etchant cools below 10°C.

FEATURES:

TURCOFORM ETCHANT 9H-L offers these features:

1. The caustic and chemicals are pre-dissolved. No waiting for complete solution of dry chemicals
2. Easier and safer to handle than dry etchants
3. Available in bulk, 3,500 gallon tank truck and in 55 gallon drums

PROPERTIES:

Appearance:	Amber liquid
Composition	Modified Sodium Hydroxide solution
Weight per gallon	12.25 lbs
Crystallization temperature	Below 10°C

HOW TO USE TURCOFORM ETCHANT 9H-L:

Initial Charge: Based upon 1000 liters of solution for N₁ = 12; N₂ = 4.

TURCOFORM ETCHANT 9H-L	216 Kg or 145 liters
TURCOFORM ETCHANT ADDITIVE #3	1400 ml
(or TURCOFORM ETCHANT ADDITIVE #3B	1900 ml)
TURCOFORM ALKETCH INHIBITOR L	115 liters
WATER	<u>Balance</u>
Total Charge	1000 liters

Fill the etch tank with water to approximately two-thirds of operating level. With continuous agitation add the required amount of TURCOFORM ETCHANT 9H-L. After the solution is thoroughly mixed,

and while continuing to mix, add the required amounts of TURCOFORM ETCHANT ADDITIVE #3 (or #3B) and TURCOFORM ALKETCH INHIBITOR L. Continue agitation and add water to the planned operating level. After thorough mixing, check the N_1 and N_2 values by titration and adjust as required. To the freshly prepared (not rejuvenated) etchant solution the TURCOFORM ALKETCH INHIBITOR-L should be added at the rate of 29 ml/liter of solution to increase the N_2 value by 1 ml. Maintaining the TURCOFORM ALKETCH INHIBITOR-L at the proper level (by control of N_2) will yield optimum results in line definition and etch factor uniformity.

For information on equipment, processing, rejuvenation, solution control and recommended ranges of N_1 and N_2 for various aluminum alloys, refer to TURCOFORM ETCHANT 9H Product Data Bulletin #395.

DISPOSAL INFORMATION:

Dispose of spent solution per local, state and regional regulations. Refer to TURCO MATERIAL SAFETY DATA SHEET for additional disposal information.

DANGER! Contact may cause severe burns to skin and eyes.

TURCOFORM ETCHANT 9H-L contains sodium hydroxide. Avoid contact with eyes, skin and clothing. Do not take internally. Use with adequate (equivalent to outdoor) ventilation.

Protective clothing, such as a chemical face shield or goggles, gloves, boots and apron made from caustic resistant materials should be worn when handling and using this product. A NIOSH-approved respirator should be worn when working in confined or enclosed areas or during mist conditions.

Before using this product refer to container label and TURCO MATERIAL SAFETY DATA SHEET for additional precautionary, handling and first aid information.

NOTICE:

The above information and recommendations concerning this product are based upon our laboratory tests and field use experience with this or similar products. However, since conditions of actual use are beyond our control, any recommendations or suggestions are made without warranty, express or implied. Manufacturer's and seller's sole obligation shall be to replace that portion of the product shown to be defective. Neither shall be liable for any loss, damage, or injury, direct or consequential, arising out of the use of this product.

Rev. 10/99(Sup.10/90)
TDB #395-L