



Better Chemistry. **Better Business.**

**Deoxidizer 13L**

**Product Code: 2552004**  
**Revised Date: 10/05/2012**

### **Deoxidizer 13L**

#### **DESCRIPTION**

**Deoxidizer 13L** is an acidic, non-chromated, water-soluble liquid product for deoxidizing-desmutting wrought aluminum alloys and cast alloys that have a low silicon content (less than 1%).

**Deoxidizer 13L** may be used in rack, barrel lines or spray operations prior to spot welding, chromating, bright dipping, anodizing or plating.

The function of **Deoxidizer 13L**, besides deoxidizing and desmutting, is also to inhibit the reformation of the natural oxide film on the aluminum surface.

**NOTE: Deoxidizer 13L** is not recommended for use on 5000 series aluminum as pitting may occur.

#### **FEATURES AND BENEFITS**

- Ready to use liquid concentrate
- Mildly acidic as opposed to nitric acid
- Simple neutralization is all that is required to dispose of the solution
- May be adapted to an automatic feed
- No odors or fumes associated with this product
- Used at room temperature - heat not required

#### **TYPICAL APPLICATIONS**

- For use on low silicon cast aluminum and other aluminum alloys as a deoxidizer / desmutter. Used for pretreatment in all aluminum processing lines after cleaning.



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### USE PARAMETERS

Concentration: 20 to 50% (volume)  
Temperature: room  
Time: 30 seconds to 3 minutes, depending upon smut buildup  
Equipment: 316 stainless, PVC, polypropylene or rubber lined tank  
Agitation: air agitation is definitely beneficial to aid in smut removal

### CONTROL

The only control is a titration procedure. Because of the complexity of the formulation it is not possible to use a test kit.

1. Pipette a 5 ml sample of **Deoxidizer 13L** into a 500 ml Erlenmeyer flask and dilute with 100 mls of water.
2. Add 25 mls of concentrated HCL and mix thoroughly.
3. Add 10 mls of 40% (weight) potassium iodide solution and swirl flask to mix.
4. Titrate to a light red color with 0.1N sodium thiosulfate solution; then add 2 to 3 mls of starch indicator solution and continue titrating until the deep blue color just disappears.
5. Record mls of 0.1N sodium thiosulfate used.

### CALCULATION

**Concentration (% VOL) Deoxidizer 13L = 0.96 X MLS Sodium Thiosulfate**

### CHEMICALS AND EQUIPMENT REQUIRED FOR TITRATION

500 ml Erlenmeyer flask  
50 ml burette  
25 ml graduate  
10 ml pipette

Concentrated HCL  
40% (weight) potassium iodide solution  
0.1N sodium thiosulfate solution



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starch indicator solution

### **CAUTION**

**Deoxidizer 13L** is an acidic liquid and should be handled accordingly. Avoid skin, eye and oral contact. Wear protective clothing, gloves and goggles when handling the product. Flush exposed areas immediately with clean, cold water. Contact a doctor immediately in case of injury.

### **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.

### **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.