



Acid Salt W

Product Code: 2541009  
Revised Date: 01/22/2009

### Acid Salt W

#### **DESCRIPTION**

**Acid Salt W** is a water-soluble dry acid which may be used in place of sulfuric or hydrochloric acids in a pre-plate line, or acid pickling line. **Acid Salt W** may be used as the acid in operations which process ferrous metals, brasses, copper, copper alloys, zinc die castings, white metals, nickel plated surfaces, lead alloys, stainless steel, pewter, nickel alloys, titanium and titanium alloys. **Acid Salt W** has been formulated for immersion application, or as a cathodic pickle.

#### **FEATURES AND BENEFITS**

- Safer to use – eliminates the hazards and problems associated with liquid acids
- Non fuming
- Ease of storing – may be stored in warehouses at any temperature
- Eliminates over-pickling of the metals; the danger with conventional mineral acids
- Economical
- Activates nickel surfaces for re-plating or subsequent chrome plating
- Contains a biodegradable surfactant system which aids in cleaning, pickling, smut removal, and activation of the metal's surface.
- May be used at room or elevated temperatures without creating corrosive fumes
- Readily soluble

#### **TYPICAL APPLICATIONS**

- For use in place of sulfuric or hydrochloric acid on any plating line
- For surface activation of all metals (except aluminum) in any metal finishing operations such as black oxide
- In pickling operations where controlled action is necessary



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**OPERATING PARAMETERS**

Ferrous metals, stainless alloys, and nickel-plated surfaces.

- Concentrations:..... 4 to 48 oz/gal. (30.0 to 360 gms/l)
- Note: when used cathodically concentrations should be maintained between 16 to 32 oz/gal.
- Temperatures:..... room to 150F.
- Current density:..... 25 to 90amps/ft<sup>2</sup> (2.5 to 9.0 amps/dm<sup>2</sup>)
- Voltage:..... 2 to 8 volts
- Electrode to work ratio:..... area 2:1
- Tanks: .....rubber lined, polyethylene, PVC polypropylene, Koroseal
- Tanks for elevated Temp ..... (150-160F): Koroseal
- Heating coils: .....karbate, graphite, chemical lead
- Ventilation: ..... required when used as a cathodic pickle
- Electrodes:..... chemical lead or carbon type agr

The life of the anodes are dependent upon the ampere hours used. Note: when carbon anodes are used, they must be securely fastened to the bus bar. Lead anodes because of their weight will maintain a secure contact with the bus bar.

As a rule a lead anode's service life will surpass that of carbon anode.

It is also preferred that when carbon anodes are used that they are bagged to prevent or minimize carbon particles from spreading throughout the **Acid Salt W** solution. A carbon anode, in time, will slowly begin to disintegrate. High current densities, solution temperature, are contributing factors to the degrading of a carbon anode, also just long service.

For immersion applications where the soils on the ferrous metals may consist of either light rust, weld scale or heat scale, the **Acid Salt W** concentrations may range from 16 to 32 oz/gal, to achieve their removal.

**OPERATING CONDITIONS – IMMERSION**

**Non-ferrous metals**

For copper, copper alloys, zinc die castings, lead alloys, white metals, pewter, titanium and titanium alloys.



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Concentration:..... 2 to 16 oz/gal (15 to 120 gms/l)  
Temperatures:.....room  
Time: ..... 15 seconds to 3 minutes  
Tanks: ..... rubber lined, polyethylene, PVC, polypropylene, koroseal

**CONTROLS**

TITRATION PROCEDURE

1. Pipette 10 mls of sample into a 250 ml Erlenmeyer flask.
2. Add 50 mls of water and 5 to 10 drops bromcresol green indicator.
3. Titrate with 1N sodium hydroxide solution until solution turns a blue-green color
4. Record mls used.

Factors (oz/gal.) 1.82  
Factors (gms/l) 13.64

CONCENTRATION = FACTOR X MLS 1N NAOH  
Dropping Bottle Control Procedure

1. Using the dropper, transfer a ½ ml bath sample into the flask provided.
2. Add about 30 ml DI water and 8 to 10 drops of methyl orange indicator
3. Add N-72 solution, drop wise, counting the drops until the solution changes color from reddish-orange to yellow.

Factors (oz/gal.) 0.91  
Factors (gms/l) 6.82

CONCENTRATION = FACTOR X DROPS OF N-72 SOLUTION

**CAUTION**

**Acid Salt W** is an acidic product and should be handled accordingly. Avoid contact with skin and eyes. Wear protective clothing, goggles and rubber gloves. Flush exposed areas immediately with clean, cold water. In case of injury, contact a doctor immediately.

**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.



## Product Bulletin

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### **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.