



Acid Salt M

Product Code: 2541006
Revised Date: 06/07/2018

Acid Salt M

DESCRIPTION

Acid Salt M is a non-fluoride bearing dry acid salt which may be used in place of sulfuric or hydrochloric acid in a pre-plate or metal finishing line for the removal of rust, heat scale, annealing scale, weld scale, or oxides for metal activation.

Acid Salt M may be used when processing ferrous metals, brass, bronze, copper, zinc die casting and aluminum alloys.

Acid Salt M may be used in a barrel or rack lines as a cathodic pickle or as a simple immersion arrangement. In fact, **Acid Salt M** is ideally suited for barrel operations where the cover clamps of the barrels are made of titanium.

FEATURES AND BENEFITS

- Safer to use - eliminates the hazards and problems associated with a liquid acid
- Non- fuming when used in an immersion operation
- Used as a cathodic pickle will require ventilation
- Ease of storing - may be stored in warehouses at any temperature
- Readily soluble
- Controlled acid action
- May be used at elevated temperatures without creating corrosive fumes
- May be mixed with hydrochloric, sulfuric or hydrofluoric

TYPICAL APPLICATIONS

- Pre-plate lines in place of sulfuric or hydrochloric acids
- In line with other metal finishing for rust removal
- Where ever heat treating is done to remove heat treat or annealing scale



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OPERATING CONDITIONS:

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

Note: when used cathodically concentrations should be maintained between 12 to 48 oz/gal.

Concentrations:	4 to 48 oz/gal. (30.0 to 360 gms/l)
Temperatures:	room to 160f (71c)
Time:	15 seconds to 3 minutes
Current density (work):	25 to 60 amps. Ft ² (2.5 to 6.0 amps/dm ²)
Voltage:	2 to 8 volts
Electrode to work ratio:	Area 2:1
Tanks:	rubber lined, polyethylene, pvc, polypropylene, koroseal
Tanks for elevated temperatures (150f to 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 is 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 M** solution. A carbon anode, in time, will slowly tend to disintegrate. High current densities, solution temperature, are contributing factor to the degrading of a carbon anode, also just long service.

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



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OPERATING CONDITIONS: Non-ferrous metals

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

Concentrations:	2 to 12 oz/gal. (15 to 90 gms/l)
Temperatures:	room
Time:	15 seconds to 2 minutes
Tanks:	rubber lined, polyethylene, pvc, polypropylene, koroseal

Tumbling barrels: concentrations may range from 2 to 6 oz/gallon with time variable, depending on metal and desired results.

After either still or tumbling operations, parts should be water rinsed.

CONTROLS

TITRATION PROCEDURE:

1. Pipette 10 mls of sample into a 250 ml Erlenmeyer flask.
2. Add 50 mls of water and three drops Bromocresol Green indicator.
3. Titrate with 1.0 N Sodium Hydroxide solution until solution turns a blue-green color.
4. Record mls 1.0 N Sodium Hydroxide used.

Factors: (oz/gal.) 1.7
 (Gms/l) 12.6

$$\text{Concentration} = \text{Factor X mls 1.0 N NAOH}$$

TEST KIT METHOD:

Factors: (oz/gal.) 0.76
 (Gms/l) 5.7

Using syringe, place ½ sample into sample bottle ¼ full of water. Add 5 to 10 drops of Methyl Orange Indicator. Add 0.72 N Sodium Hydroxide solution drop wise, counting the drops until the color changes from Reddish-Orange to yellow end-point.

$$\text{Concentration} = \text{Factor X Drops 0.72 N Sodium Hydroxide}$$



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CAUTION

Acid Salt M is an acidic product and should be handled accordingly. Avoid skin and eye 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.