Acid Salt W

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 & Benefits

Free flowing powder	Safer than handling liquid acids
Non-fuming	Safer work environment
Versatile	Purchase one product Simple inventory control

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

Operating Conditions

Ferrous metals, stainless alloys, and nickel-plated surfaces

Concentration	4 – 48 oz/Gal (30 – 360 g/L) Note: When used cathodically, concentrations should be maintained between 16 – 32 oz/Gal.
Temperature	Ambient – 150°F
Current density	25 – 90 Amps/ft^2 2.5 – 9.0 Amps/dm^2
Voltage	2 – 8 volts
Electrode to work ratio	Area 2:1
Tank	Rubber lined, Polyethylene, PVC, Polypropylene, Koroseal

Tanks for elevated temp	Koroseal (150 – 160°F)
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 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.

Immersion Process for Non-Ferrous Metals
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.

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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.

Concentration	2 – 16 oz/Gal (15 – 120 g/L)
Temperature	Ambient
Time	15 seconds – 3 minutes
Tank	Rubber lined, Polyethylene, PVC, Polypropylene, Koroseal

Titration Method

1. Pipette 10 mL of sample into a 250 mL Erlenmeyer flask.
2. Add 50 mL of water and 5 to 10 drops Bromocresol Green indicator.
3. Titrate with 1.0 N Sodium Hydroxide solution until solution turns a blue-green color.
4. Record mL used.

Calculation

Factor (oz/Gal)	*1.82*
Factor (g/L)	*13.64*

Concentration = mL 1.0 N NaOH x Factor

Test Kit Method

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 0.72 N Sodium Hydroxide solution, drop wise, counting the drops until the solution changes color from reddish orange to yellow.

Calculation

Factor (oz/Gal)	*0.91*
Factor (g/L)	*6.82*

Concentration = # Drops of 0.72 N NaOH x Factor

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.

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.

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.

Our People. Your Problem Solvers.

For more information on this process,
please call us at 203.756.5521 or email: techservice@hubbardhall.com

Hubbard-Hall holds certifications for **ISO 9001:2015**, Responsible Distribution, as accredited by the **ACD** (Alliance for Chemical Distributors) and as a **Women-Owned Small Business**, as well as maintaining an association with **Omni-Chem**[136].