Product Bulletin

Product Name: Acid Salt 891
Product Code: 2541038
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Acid Salt 891

Acid Salt 891 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 891 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
High halogen conc.	Rapid action, shorter time cycles, higher productivity

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.

Concentrations	4 – 8 oz/Gal (30 – 60 g/L)
Temperatures	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
Tanks	Rubber lined, Polyethylene, PVC Polypropylene, Koroseal
Tanks for elevated temp	(150°F – 160°F): Koroseal
Heating coils	Karbate, Graphite, chemical lead
Ventilation	Required when used as a cathodic

	pickle
Electrodes	Chemical lead or carbon type agr

Note: When used catholically concentrations should be maintained between 16 to 32 ounces per gallon.

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 891 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 891 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.

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

Titration Method

1. Pipette 10 mL of bath 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) 2.05
Factor (g/L) 15.4
Concentration = mL 1.0 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 891 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.

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