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PICKLE PAL™

Inhibitor For HCl And H₂SO₄ Pickle Baths
TECHNICAL DATA
2-1-02

PICKLE PAL™

NON-HAZARDOUS INHIBITOR FOR HYDROCHLORIC ACID AND SULFURIC ACID PICKLE BATHS

PICKLE PAL	produces bright, clean steel parts maximizing subsequent plating quality and greatly extends the life of a pickle bath.
PICKLE PAL	eliminates smut formation with high carbon or carbo-nitrided steel.
PICKLE PAL	improves pickle's ability to remove scale.
PICKLE PAL	is low foaming.
PICKLE PAL	is extremely beneficial when pickling heat treated parts.
PICKLE PAL	is a cure for pickle-related blistering.
PICKLE PAL	inhibits hydrogen build-up in parts which can occur during pickling.
PICKLE PAL	prevents etching of parts from over-pickling.
PICKLE PAL	greatly reduces soluble iron build-up in the pickle, significantly minimizing iron contamination of plating baths.
PICKLE PAL	is compatible with plating baths and waste treatment processes.

SOLUTION MAKEUP

	<u>RANGE</u>	<u>OPTIMUM</u>
PICKLE PAL:	0.5% to 3% by volume	1% by volume

SOLUTION MAINTENANCE

Each time acid is added to the pickle tank, add the equivalent ratio of PICKLE PAL as was used for the initial pickle makeup.

Example:

Pickle bath makeup for a 200 gallon hydrochloric acid pickle tank

Concentrated Hydrochloric Acid	60 gallons
PICKLE PAL	2 gallons

Maintenance Addition

Concentrated Hydrochloric Acid	15 gallons
PICKLE PAL	½ gallon

RECOMMENDATIONS FOR HYDROCHLORIC PICKLE BATHS

	<u>RANGE</u>	<u>OPTIMUM</u>
Concentrated Hydrochloric Acid:	20 to 50%	30%
PICKLE PAL:	½ to 2%	1%
Immersion Time:	2 to 10 min.	4 min.
Temperature:	60 to 85° F.	75° F.

HANDLING & STORAGE

As with any chemical, use protective goggles, rubber gloves and good ventilation. For eye contact, flush with water for at least 15 minutes and see a physician. For skin contact, wash area with soap and water. Remove contaminated clothing at once. Avoid inhalation.

Store away from oxidizing agents.

Review MSDS before using.

FREEZABILITY: As with most chemical products, it is preferable that freezing be avoided. However if freezing should occur during transportation or storage, directions for handling the products covered in this technical data sheet are as follows:

If PICKLE PAL freezes, simply allow the container to completely thaw and bring to room temperature of 70-75F/ 21-24C. Thoroughly mix to bring back to original condition.

NON-WARRANTY

The data in this bulletin is believed by Columbia Chemical Corp. to be accurate, true, and complete. Since, however final methods of use of this product are in the hands of the customer and beyond our control, we cannot guarantee that the customer will obtain the results described in this bulletin, nor can we assure any responsibility of the use of this product by the customer in any process which may infringe the patents of third parties.