Technical Information Sheet

UNICLEAN

(RUST REMOVERS for Mild Steel Components prior to Phosphating / Electroplating)

SCOPE: UNICLEAN is a phosphoric Acid based derusting solution; extensively used for the process of derusting of plain and fabricated sheet metal components; Furnitures and fixture parts, Automobile spare parts; electrical and electronic fabricated sheet metal parts, and components which are required to be electroplated, painted or powder coated or lacquered. UNICLEAN has been formulated by using Phosphoric acid, Oxidants; Wetting and Sequestering agents, for uniform removal of the grease, dirt, dust and rust without affecting the base metal. There is no etching of the metal, as in the case of treatments with strong mineral acids. UNICLEAN contains in its formulation organic corrosion inhibitors which retard fuming, increase the wetting characteristics of the solution. This treatment prevents Hydrogen imbrittlement which is otherwise observed in the case of direct Hydrochloric Acid Pickling.

TECHNICAL SPECIFICATIONS

- Colour and Nature: Clear Pale Greenish Liquid RoHS Compliant.
- Specific Gravity: 1.20 +/- 0.02 at 25°C
- Dipping Concentration, time, Temp: 25 to 35 % Vol / Vol, Room Temp 10-20 min
- Pointage Strength: 16 to 24 Points
- Flammability: Water Based Hence Non-Flammable
- Shelf Life: 2 Years from the date of Supply

BATH MAINTAINANCE

Determine the Pointage of the Derusting Bath Solution every third day. It is recommended to add replenishment Chemical Quantities more frequently, to obtain best results and the optimum utilization of the Derusting bath solution. The permissible limit for the Iron Concentration is 7 % max. When the percentage of Iron reaches more than 7%, the derusting process gets retarded & the derusting bath needs to be re-made. This period of remaking of the bath is 3 - 6 months. Determine the percentage of iron as under:

IRON CONCENTRATION:

IRON percentage: B R Reading in ml X 0.05565

Determination of Bath Strength:

Pipette out ONE ml of the bath solution + 20 ml of water + 3-5 drops of Phenolphthelien Indicator and titrate against 0.1 N Sodium Hydroxide

End Point: Colourless to Pink

Burette Reading in ml is pointage Strength of the Derusting Bath. Range: 16 to 24 Points

The rust Remover UNICLEAN is recommended for removal of adherant and loose rust from CRCA sheet metal parts. In case of pitted steel or Hot Rolled steel (angles / channels / beams / sheet etc.) it is recommended to use inhibited Hydrochloric Acid bath dip cleaning. Such components loose hard / pitted rust and hot rolling Scales only in hydrochloric acid bath. These components shall then be dipped in the normal UNICLEAN bath as per the procedure detailed above. This shall eliminate hydrogen imbrittlement and offer enhanced corrosion protection.

Handling Precautions:

Uniclean is an acidic Chemical. In case of spillage; flush the affected area or part of the body with plenty of running water for 5-10 minutes. Operators must use Hand-gloves; Face-shield; Rubber Aprons and gum-boots of Safety shoes while working with Uniclean.

Effluent Treatment:

The chemical is Acid Based and hence Water Soluble. Add mild Alkali to adjust the pH of the effluent Water between 6.5 to 7.5 (Neutral pH). In case of Spillage on the Shop-Floor or on the body, Flush with plenty of Running Water for 5 minutes and call for medical attention.

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