

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 MENTAINANCE

Determine the Pointage of the Derusting Bath Solution every third day . It is recommended to add replenishment Chemical Quantites 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 : Pipette out 10 ml of the Derusting Bath Solution and add 20 -30 ml water. Add 10 ml of Sulphuric -Phosphoric Acid Mixture and Titrate against 0.1 N KMnO₄ Solution. **End Point : colourless to pink.**

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 .

Handelling 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.

Prof Pradeep U Vaidya : CEO : Technical & Marketing Director : PROMTECH CONSULTANCY GROUP

Thane : INNOVATIVE Coating Industries , B-7/ 701,Vedant Complex, Nr Vartak Nagar Naka, **THANE 400 606 India**

Pradeep Vaidya : CEO Technical & Marketing Director : +91 9820181738 Tel : 25883265 puvpromtech@gmail.com

Sonia Vaidya : Technical Marketing Executive +91 9819813015 soniavaidya30@gmail.com www.promtechaerosol.com

Pune Factory : C/o : PMP Pvt Ltd , F-II/29/4/(ii); Nr Telco Materials Gate, B/h MOGRA Engg, ahead of Wonder cars workshop ;

MIDC. PIMPRI, PUNE 411018 India Ms PAYAL PATHAK : +91 7767982244 Email : payalpathak75@gmail.com