TETRA-CHEM
INDUSTRIES LTD.

271 INGERSOLL ST. S.
INGERSOLL, ONTARIO
CANADA N5C 3J7

TEL: (519) 485-4370
TOLL FREE: (888) 658-5515
FAX: (855) 762-4446
EMAIL: info@tetra-chem.com
WEB SITE: www.tetra-chem.com

Product Application Presentation

Product Identifier: **TCI 528 H.D.**

Process Identifier: **304/309 Stainless steel pickling/passivating weld/heat zone cleaner**

Product Presentation

TCI 528 H.D. is a clear viscous liquid of acid stable detergents for Nitric and Hydrofluoric acid producing a long-time stable formula for the removal of an oxide layer on stainless steel after heat treatment such as welding. A Cr_2O_3, FeO, SiO_2 and MnO layer is formed on the surface of the stainless steel around the heat treated areas as well as on the welding joint itself. This layer must be removed to obtain the desired surface properties: a passivated layer with the proper chromium and nickel content.

Process Introduction

The brush applied **TCI 528 H.D.** liquid formulation is designed to effectively remove deeply embedded oxidation products on the weld seam and the adjacent blue heat treat discoloration within 2–3 minutes. As the reactions take place with Nitric acid, polluting fumes of Nitrous oxides are emitted to atmosphere. This liqud formulation contains Nitrous oxide scavenger reactions that convert all Nitrous oxides generated to Nitrogen gas, Ammonium nitrate, Carbon dioxide and water thus producing insignificant emissions.

Packaging: 20, 205 litres (5, 55 gallons)

Process Specificity

This procedure is for trained personnel only.

To start the cleaning operation, set up the chemical applicator spray systems for the **TCI 712 H.D. DEGREASER** and **TCI 528 H.D.** Stainless Steel cleaner. Regulate the air pressure to 340–400 kPa (30–50 psi). The pumps will operate automatically by starting and stopping the flow on demand at the wand.

CAUTION: Do not spray **TCI 528 H.D.** directly onto a hot metal surface since it will alter the chemistry resulting in staining. Walk around the whole unit being treated and thoroughly cool and wet the entire surface. If necessary apply **TCI 712 H.D.** degreaser to remove the anti-splatter with brushing - followed by a high pressure 4gpm @ 3,000psi water rinse at close range and horizontally from the bottom up.

Allow the stainless steel article to dry before applying the **TCI 528 H.D.** onto all the weld seams, heat discoloration areas and the entire body. Allow a 2–3 minute reaction time. Keep all surfaces wet at all times. Systematically rinse with high pressure at 3000psi water starting at the bottom and consistently moving with a **5cm** fan or less in a horizontal pattern until the top is reached. While performing this final process, a corrosion resistant protective chromium and nickel oxide is formed. Then rinse all residual chemical solution thoroughly from the surface working from the top down. Be sure to always rinse the chemical solution overspray from other sections in the same fashion. Let dry.

For industrial and institutional use only.

The information given herein is given in good faith but no warranty, expressed or implied is made.

Please call our technical support line at 1-888-658-5515 for solutions to your industry.