

## **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

SPECIALTY CHEMISTRY

WASTE MANAGEMENT

APPLICATION TECHNOLOGY

INNOVATIVE ENGINEERING

## **Product Application Presentation**

### Product Identifier:

#### **Process Identifier:**

# TCI 1211 H.D.

Hot aqueous multi-metal immersion tank degreaser, oxidation stripper and corrosion inhibitor (powder)

#### **Product Presentation**

TCI 1211 H.D. is a dry, free flowing granular cream coloured, dust free powder of mild alkaline builders, incorporating special buffers, rust and lime scale removers, biodegradable detergents, chelating agents and corrosion inhibitors.

**TCI 1211 H.D.** is charged to hot water 60–80°C at a rate of 70–100 g/L. Conversion: 160–180°F at a rate of 8–11 oz/gal.

**TCI 1211 H.D.** is for cleaning aluminum, and other white and ferrous metals.

Consult service representative for safe and efficient intended applications.

#### Typical hot immersion washer



#### TCI 1211 H.D.

when used according to directions will prevent rust and corrosion of all wetted parts (steam, vapor or liquid) of the steel cabinet and solution holding reservoir.

#### **Process Specificity**

Hot aqueous (60–80°C) immersion cleaning of soiled stainless steel, ferrous and copper metals and their alloys pertaining to rebuilders of automotive and industrial engines and power transmission components. Soils effectively removed through turbulence include: dirt, oil, varnish, drawing compounds, grease, carbon, metallic particles, most paints, rust, phosphate coatings, heat treat scale and smut.

The metals are cleaned by emulsification, dispersion, saponification and sludge settling or a combination of these mechanisms.The cleaning solution comes in contact with the entire internal and external surface of the part when immersed in the solution. After the alkaline cleaner has affected the soil on the part, the soil is removed from the metal surface by dispersion, i.e. mechanical means of solution movement. The cleaning cycle (< 1 hour) depends on the type of dirt and the type of parts cleaned.

Due to the hot cleaning process, parts dry quickly with no residual white powder residue. Use a airblow gun to remove the residual cleaning solution from pooling areas, theaded bolt holes, cracks and crevises.



#### **Solution Maintenance**

Cleaning solution concentration is maintained through simple addition of the TCI 1211 H.D. compound. Solution strength is determined by titrating with a dilute acid to the phenolphthalein end point with Titration Kit 1211

**CAUTION:** You may shut the heat off overnight or on weekends to allow the oil skimmer to remove floating protective oils and waxes that separate during cooling. The solution must be back up to 60–80°C before cleaning resumes.

#### **Solution Disposal**

The clean chemical solution is biodegradable, but according to the Ontario Ministry of the Environment and Climate Change *Regulation 347*, and local municipal by-laws the cleaning process may have generated a hazardous or liquid industrial waste in which case the rinse water must be:

Discharged through a treatment system e.g. 3 stage interceptor; OR Manifested and removed by a licensed carrier and received by a licensed receiver accompanied by a Generator Registration Number; OR removed by a licensed carrier and received by a licensed receiver under a service contract providing a garage license number. Contact Tetra-Chem Industries Ltd. for complete and complementary analytical tests in compliance with the regulations prior to sewer discharge.

### Packaging & Product Codes:

25 kg plastic pail.....1211-025 100 kg plastic keg....1211-100 200 kg plastic drum.....1211-200

# Befor<u>e</u>





After





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. Copyright 2016 Tetra-Chem Industries Ltd. All rights reserved. Printed in Canada. No part of this publication may be reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written permission of the publisher.