



Technical Process Bulletin

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TURCO® 4409

LIQUID ACID CLEANER AND DEOXIDIZER

DESCRIPTION:

TURCO 4409 is a clear, colorless liquid acid cleaner and deoxidizer designed for use on ferrous and nonferrous alloys by immersion, spray and hand wipe methods.

TURCO 4409 is not intended for use on magnesium alloys and high strength steels.

FEATURES:

1. Cleaner can be diluted to meet specific leaning/deoxidizing requirements
2. Readily rinses from parts with water or steam
3. Imparts satin finish on aluminum alloys
4. Produces excellent base for paint on aluminum alloys
5. Removes rust from ferrous alloys

USE INSTRUCTIONS:

Equipment: Tanks and associated equipment should be fabricated from acid-resistant stainless steel, or plastic. Mild steel tanks and equipment are not suitable for long term usage.

Hand Wipe Application: Use TURCO 4409 at about 15% in water at room temperature. Apply by brush or cloth saturated with solution. Gentle scrubbing speeds corrosion removal. Rinse with steam cleaner, hot or cold water.

IMMERSION METHODS:

Ambient Cleaning: Use TURCO 4409 at 25% to 50% in water at room temperature. Immerse parts in solution for 3 to 10 minutes. Rinse with cold or warm water.

Hot Tank Cleaning: Use TURCO 4409 at 5% to 10% in water at room temperature. Heat solution to desired temperature, not to exceed 60°C. Immerse parts for 3 to 1- minutes. Rinse with cold or warm water.

Spray Method: Use TURCO 4409 at about 15% of water at room temperature. Heat solution to desired temperature, not to exceed 60°C. Spray by means of a siphon or nonatomizing spray methods. Rinse with cold or warm water.

NOTE: Always add TURCO 4409 to water. Mechanical agitation is recommended.

CONTROL:

Apparatus:

1. 205943 - Pipet, 10 mL
2. 205700 - Buret, 25 mL
3. 205402 - Beaker, 250 mL
4. pH meter

Reagents:

1. 205289 - TITRATING SOLUTION 89 (Sodium Hydroxide, 1.0N)

Procedure:

1. Obtain a sample from the tank and allow to cool to room temperature.
2. Pipet 10 mL into a 250 and add approximately 100 mL DI water.
3. Titrate to pH 4 with TS 89.

Calculation:

$$\text{mL of TS89} \times 1.96 = \% \text{ by volume Turco 4409}$$

DISPOSAL INFORMATION:

Dispose of spent material per local, state and regional regulations. Refer to HENKEL SURFACE TECHNOLOGIES MATERIAL SAFETY DATA SHEET for additional disposal information.

CAUTION!

TURCO 4409 contains phosphoric acid. Avoid contact with eyes, skin and clothing. Do not take internally. Use with adequate (equivalent to outdoor) ventilation.

Protective clothing, such as a chemical face shield or goggles, gloves, boots and apron made from acid resistant materials should be worn when using and handling this product. Use a respirator equipped with mechanical filter for mist conditions.

Transport and store in closed containers between 0° and 50°C.

Before using this product refer to container label and HENKEL SURFACE TECHNOLOGIES MATERIAL SAFETY DATA SHEET for additional precautionary, handling and first aid information.

NOTICE:

The above information and recommendations concerning this product are based upon our laboratory tests and field use experience with this or similar products. However, since conditions of actual use are beyond our control, any recommendations or suggestions are made without warranty, express or implied. Manufacturer's and seller's sole obligation shall be to replace that portion of the product shown to be defective. Neither shall be liable for any loss, damage, or injury, direct or consequential, arising out of the use of this product.

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