

# PRODUCT DATA

## RUST REMOVER 3503

### VERSATILE ACIDIC CLEANER, RUST AND SCALE REMOVER

**Rust Remover 3503** is a relatively thin liquid acidic compound containing a specially chosen blend of wetting agents and inhibitors. It is a concentrated product and can be highly diluted for use.

**Rust Remover 3503** is a versatile material. It can be used in soak tanks, brushed on or sprayed on, and, in some cases, can be used in barrel finishing operations. The operating temperatures employed with **Rust Remover 3503** range from room temperature to 150°F (65.6°C).

**Rust Remover 3503** is designed primarily for the removal of rust from ferrous metal surfaces, but solutions of this product will effectively remove light oil films and shop soil.

**Rust Remover 3503** conditions steel and cast iron by developing a surface condition that is favorable to the adhesion of paint to the work. The etching and conditioning on aluminum and aluminum alloys is similar to that obtained on ferrous metals. Thus, the adhesion of paint to metal is substantially enhanced by this treatment.

**Rust Remover 3503** can also be used in rubber or plastic lined tumble barrels for descaling copper alloys and steel for descaling and stone burnishing aluminum and stainless steels.



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**TYPICAL PHYSICAL PROPERTIES**

Appearance	Thin, amber colored acidic liquid
pH (1% solution)	2.0
Pounds per Gallon	11.6 (5.3 kg)
Acidity	24-26% wt/vol as HCl
Use Concentrations	Neat to 25% by volume dilution with water*

- \* **Note:** Acid resisting equipment must be used. Satisfactory materials for tank construction are: acid resistant brick, dense woods such as cypress, type 316 stainless steel, rubber and other organic coatings as specified by manufacturers. Heating coils should be made of 316 stainless steel.

**APPLICATIONS**

Here are some typical applications selected from a variety of uses where **Rust Remover 3503** gives excellent performance.

<b><u>USE</u></b>	<b><u>DETAILS</u></b>
1. To remove light rust and scale by immersion, brush and spray.	1. 5-15% by volume with water at from room temperature to 150°F (65.6°C).
2. To remove heavy rust and scale by immersion, brush or spray.	2. Neat to 25% by volume with water at from room temperature to 150°F (65.6°C).
3. For use in lined tumble barrels for deoxidizing copper and stone burnishing aluminum and stainless steel	3. 2% by volume with water at room temperature.

**USE**

4. Cleaning rust, scale and general soil from galvanized pipe.
  
5. Removing rust and scale, grit, oil and dirt from rock drills and other mining tools.

**DETAILS**

4. Dirty and rusty pipe is passed through a spray of **Rust Remover 3503** at a 4:1 dilution, heated to 130°F (54.4°C). The pipe revolves as it moves forward at approximately 30 fpm (9.1 m/min). In the spray stage, two stainless steel brushes turn as they help remove the soil prior to the final clear spray rinse. After cleaning, the pipe looks "newly galvanized."
  
5. The tools are steam cleaned with **Rust Remover 3503**. The solution is 25% **Rust Remover 3503** at 120°F (48.9°C). The tools are thoroughly cleaned and derusted quickly and economically.

**ADVANTAGES**

- ◆ No hazardous or obnoxious fumes
- ◆ Removes light soil
- ◆ Prepares metal surfaces for painting
- ◆ No final water rinse required
- ◆ Can be used at room temperature
- ◆ Economical
- ◆ Free rinsing, when necessary to rinse

**SHIPPING INFORMATION**

**Rust Remover 3503** is shipped in 15 (U.S.) gallon (56.8l) coated drums containing 185 pounds (83.9 kg).

**STORAGE/HANDLING/DISPOSIBILITY**

No health or safety hazards exist when **Rust Remover 3503** is stored, used and disposed of in accordance with instructions given on the Material Safety Data Sheet for this product.

**WARRANTY**

The information given here is considered to be correct and is offered for your consideration, investigation and verification. No warranties are expressed or implied since the use of our products is beyond our control. Statements concerning the use of Houghton products are not to be construed as recommending the infringement of any patent.

**EXPORT STATEMENT**

This commodity and its technology are subject to the export control laws and regulations of the United States Government. Buyer agrees that it shall not make any disposition, by way of export, diversion, transshipment, re-export or otherwise, except as expressly permitted under United States law.

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