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Product Bulletin

# RODINE 51 INORGANIC ACID INHIBITOR FOR PICKLING AND INDUSTRIAL CLEANING

## **APPLICATION**

**RODINE 51** is a strong, semi-foaming, liquid inhibitor for use in sulfuric pickling or conventional muriatic acid pickling or cleaning operations. It is effective on any type of steel, and can be used at any acid concentration.

**RODINE 51** is an effective inhibitor for hydrofluoric, phosphoric, various organic acids, and sodium bisulfate solutions in pickling and chemical cleaning operations.

The amount of **RODINE 51** required to provide the maximum degree of protection will vary with the type of metal being pickled or cleaned and the specific pickling or cleaning sequence. The recommended amount of **RODINE 51** to be used is always given in percent by volume of the concentrated acid, regardless of the degree of acid dilution used.

# BATCH PICKLING OF MILD AND LOW CARBON STEELS:

Use **RODINE 51** in amount ranging from 0.125 to 0.25% by volume of the concentrated acid. Consult your CH<sub>2</sub>O Water Treatment Specialist for more specific information.

# BATCH PICKLING OF ALLOY AND MORE REACTIVE STEELS:

Use **RODINE 51** in amount ranging from 0.25 to 0.5% by volume of the concentrated acid. Consult your CH<sub>2</sub>O Water Treatment Specialist for more specific information.

# **FEEDING TECHNIQUE**

**RODINE 51** may be added directly to tap water, diluted acid, or concentrated acid. It is stable for long periods of time in the concentrated acid. It is effective at all temperatures up to 180°F.

**RODINE 51** contains a detergent; therefore, the use of an anti-foam agent such as **FOAM CHEK 707** may be desired.

#### INDUSTRIAL CLEANING OPERATIONS

Typical industrial cleaning temperature where **RODINE 51** is used at 150°F or below; use amount ranging from 1 to 2 percent by volume of the concentrated acid. With dry acids, use 1 pint of **RODINE 51** per 100 pounds of dry acid. Consult your CH<sub>2</sub>O Water Treatment Specialist for more specific information.

## SAFETY & HANDLING PROCEDURE

**RODINE 51** contains toxic and corrosive ingredients, which may cause burns upon exposure. There is a carcinogenic hazard associated with this product; wear full protective gear when handling.

# **PHYSICAL PROPERTIES**

pH of Use Solution	_ 1.5-3.5
	Brown Liquid
	Aromatic
Pounds per Gallon	8.6-9.1
Flash Point	165°F

#### **Seller Warranty**

CH<sub>2</sub>O brand test reagent refills are available through your sales representative at no charge. Customers are required to confirm product compatibility via a control test for their specific application. CH<sub>2</sub>O recommends that you perform regular/daily testing to control chemical levels and cycles of concentration within established limits. Additional tests may be performed at your request. Test reports reflect conditions at the point when the analysis was performed. Results will change over time and with varying operating conditions.

Seller warrants that this product conforms to its chemical description and is reasonably fit for the purpose referred to in the product data sheet. Buyer is responsible to ensure that products and product dosages are appropriate for Buyer's particular application. Seller makes no other warranty or representation of any kind, express or implied, concerning the product, including NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS OF THE GOODS FOR ANY OTHER PARTICULAR PURPOSE. No such warranties shall be implied by law and no agent of seller is authorized to alter this warranty in any way except in writing with a specific reference to this warranty. The exclusive remedy against seller shall be a claim for damages not to exceed the purchase price of the product, without regard to whether such a claim is based upon breach of warranty or tort. Jurisdiction for any issues arising from or relating to this product shall be in the courts of the State of Washington and the venue shall be Thurston County. Any controversy or claim arising out of or relating to this contract, or breach thereof, shall be settled by arbitration in accordance with the rules and procedures as stated in RCW 7.06 and shall be binding upon both parties without right to appeal, and judgment upon the award rendered by the Arbitrator(s) may be entered in any court having jurisdiction thereof.

Applies to all products sold by CH<sub>2</sub>O, Inc., and is hereby communicated to all of its customers as a condition of sale. Use of CH<sub>2</sub>O products is subject to the Standard Terms and Conditions as listed on CH<sub>2</sub>O, Inc.'s website at: <a href="www.ch2o.com">www.ch2o.com</a>.



