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Product Bulletin

PRODUCT 6371 SELECTA-MEEN

CONDENSATE TREATMENT

APPLICATION

Carbon dioxide gas is created in boiling water by the heat destruction of bicarbonate and carbonate impurities. This gas leaves the boiler with the steam generated and enters steam utilization components of the heating system. As the steam condenses and cools, the carbon dioxide dissolves back into the now pure water. Water and carbon dioxide react together forming highly corrosive carbonic acid. Carbonic acid is notorious for etching iron alloys. This creates iron compounds which are readily soluble in water. The activity causes metal-loss damage and is a significant problem to commercial and industrial heating systems.

PRODUCT 6371 contains water dispersible compounds and stabilizers that protect condensate systems against oxygen and carbon dioxide by forming a barrier film. The resulting non-wetable surface prevents contact of corrosive species with the base metal.

The ingredients in **PRODUCT 6371** comply with 21 CFR 173.310 and other applicable regulations governing the use of chemicals for steam treatment in FDA regulated plants. Under these conditions, the maximum allowable feed-rate is 50 ppm as product.

PRODUCT 6371 is designed to protect condensate return systems without using conventional amines. The product:

- Does not contain amines
- Suitable for food and dairy applications
- Forms a physical barrier to protect condensate system metallurgy
- Provides protection against both carbon dioxide and oxygen attack
- Performs best with condensate pH between 6.0-8.0

SAFETY & HANDLING PROCEDURE

This product is a neutral liquid. It can be safely handled using standard precautionary procedures associated with industrial chemicals of this type.

FEEDING TECHNIQUE

The dosage of **PRODUCT 6371** required to protect the condensate system will depend upon many factors. In all cases, the product should be applied continuously to the main steam header for maximum effectiveness. Injection of the product to boiler feedwater is <u>NOT</u> recommended. **PRODUCT 6371** can be fed neat or diluted with deionized or other suitable dilution water to a convenient strength.

DOSAGE & CONTROL

Correct dosage will be determined by testing iron levels in the condensate return water, and the use of corrosion coupons or on-line corrosion monitoring equipment. 6371 may remove existing corrosion by-products, which can cause fouling of steam system components. Initiate product application at 10 ppm and gradually increase up to a maximum of 50 ppm based on steam flow. Contact your CH₂O water treatment specialist for further information on analytical testing. Daily testing is recommended to maintain proper control. Failure to monitor and maintain treatment levels can cause damage. In addition to monitoring and maintaining treatment levels, it is the customer's responsibility to ensure the product is fit for its intended application.

PHYSICAL PROPERTIES

pH of 1% Solution	6-8
Pounds per Gallon	8.1-8.6
Physical Appearance	White, opaque liquid
Odor	Mild
Flash Point	N/A

Seller Warranty

CH₂O 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. CH₂O 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 CH₂O, Inc., and is hereby communicated to all of its customers as a condition of sale. Use of CH₂O products is subject to the Standard Terms and Conditions as listed on CH₂O, Inc.'s website at: www.ch2o.com.



