

V-GUARD™ 232 Scale Inhibitor

Product Description

V-GUARD 232 scale inhibitor is a multicomponent liquid blend of polyphosphate, polymer, dispersants and sequestering agents for prevention of scale deposits in steam boilers. V-GUARD 232 is highly effective against a range of deposits due to its multicomponent formulation. V-GUARD 232 is recommended for boilers operating on softened water supply.

The innovative polymer in V-GUARD 232 inhibits the formation of hardness-based scale crystals by maintaining them in soluble form. This polymeric action is enhanced by sequestering agents, which complex deposit-forming cations in the feedwater and solubilise existing scale deposits on internal boiler surfaces. Micro fragments of scale are maintained in dispersed form and are removed from the boiler during blowdown.

Iron in the boiler water and feedwater circuit is kept in the soluble ferrous form by an effective iron reducing agent. This action better allows the specific iron sequestrants in V-GUARD 232 to complex iron and remove it via blowdown. The combination of iron reducing agent and sequestrants prevents iron from forming insulating deposits.

The natural dispersant in V-GUARD 232 is effective against potential contaminants in the boiler water such as oil and silica. Through this action, the agglomeration of these contaminants is minimised, and they are easily removed by blowdown.

V-GUARD 232 contains polyphosphate, which gives an added level of protection against hardness deposition coming from poor feedwater quality and/or marginal softener operation. The phosphate precipitates calcium hardness as calcium hydroxyapatite, a fluidised, nonadherent sludge. The polymers in V-GUARD 232 further condition this sludge so that it can be effectively removed through bottom blowdown procedures.

Product Benefits

- Effective against a wide range of deposit-forming contaminants found within the boiler system such as iron, hardness, silica and organic materials.
- Effective at solubilising existing deposits and cleaning dirty boiler surfaces on-line.
- Provides added protection against elevated levels of hardness during periods of poor feedwater quality control.

Product Application

V-GUARD 232 is fed to the pre-boiler section neat or as a dilute solution. The preferred feed-point is to the feedwater line, downstream of the feedwater pump, through stainless steel piping and injection quill.

Product Dosage

The exact dosage is dependent upon feedwater chemistry and boiler operating conditions. Your Visentia water treatment consultant can supply specific information regarding the product control range applicable for your plant.

Testing and Control

The level of V-GUARD 232 in your boiler water can be tested and controlled using a simple orthophosphate test. Your Visentia water treatment consultant can supply specific information regarding the product control range applicable for your plant.

Physical Properties

Form:	Liquid
Odour:	None
Colour:	Light brown, clear
pH (25°C):	7.0
Melting/Freezing Point:	NA
Boiling Point:	100°C
Solubility (water, 25°C)	Miscible
Flammability:	Non-flammable
Relative Density:	1.15
Viscosity:	NA

Regulatory & Handling

MPI Dairy: V-GUARD 232 is recognised by the Ministry of Primary Industries New Zealand as a Dairy Maintenance Compound; approved for treatment of steam boilers producing culinary steam in dairy factories when used in



accordance with recommended operating conditions/guidelines.

MPI Non-Dairy: V-GUARD 232 is approved by the Ministry of Primary Industries New Zealand as a Non-Dairy Maintenance Compound for treatment of boilers and steam lines in food and beverage processing plants where the steam produced may come into contact with food products and process equipment (C 63).

Refer to the SDS or contact your Water Treatment Consultant for any additional regulatory and environmental information.

Safety: Visentia maintains an SDS for all its products. Use the health and safety information contained in the SDS to develop appropriate product handling procedures to protect your employees and customers. Our SDS should be read and understood by all your supervisory personnel and employees before using Visentia products in your facilities.

Packaging

V-GUARD 232 is available in 20L pails, 200L drums and 1,000L IBC.

Further Information

If you require any further details on Visentia's products or services, please call your local Visentia water treatment consultant or directly to our Auckland head office on +64 9 216 9824.