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Triple7 Eco-Scale. Application Sheet



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ECO-SCALE

MARINE LIMESCALE AND CALCIUM REMOVER

Mineral scale is a build-up of insoluble sulphate and carbonated salts - the result of exposure to salt water and calcium-containing solutions including soaps, reagents and bacteriocides. Traditional chemistries including phosphoric acid, metasilicates and chlorine, present special handling and discharge issues and most of these products are inherently toxic and non-biodegradable.

Triple7 Eco-Scale is a non-toxic, bio-based scale remover designed for its effectiveness and safety to you, the cleaning surface and the environment. The product is a unique formulation of non-ionic surfactants, fruit-based acids and botanical additives which create a powerful scale remover.

Safe to Use

Triple7 Eco-Scale is a viable cleaning alternative, especially designed for use in closed circuit applications and enclosed environments where human safety is of the highest priority.

Triple7 Eco-Scale will not harm equipment and gives longer life cycle maintenance and consequent cost advantages. Applications include pipework, heat exchangers, boilers, condensers, wet-scrubbers and chillers.

Applications

For typical applications dilute 1:5. Allow to stand or circulate between 2 to 10 hours depending on the degree of scale removal required. Rinse with fresh water.

Triple7 Eco-Scale is used for the removal of scale and calcium deposits from all surfaces and pipework systems. It is free of caustics, phosphates, petroleum products, terpenes, glycol ethers, ammonium compounds, phosphoric, hydrochloric & oxalic acids and D-limonene.

Benefits

- No special storage/handling requirements
- Fully biodegradable, no offensive odours
- No petroleum products
- Cost-effective
- A long term solution to scale formation
- Non-toxic, low corrosion
- Will not harm metals, rubber, plastics
- Longer life cycle maintenance
- Not affected by water hardness
- No hazardous acids

Heat Exchangers, Condensers, Chillers

Apply a minimum 10% solution of **Triple7 Eco-Scale** and allow to circulate for 8 - 16 hours. Maintain a pH of less than 3.0 (ideally overnight) and then follow with a thorough water rinse. Repeat if necessary.

Bilges

Empty bilge, ensuring that correct safety practices are in place to deal with any toxic fumes present. Clean with **Triple7 Heavy Duty** at 10% to remove organic or petroleum deposits if necessary, rinse with water, followed by **Triple7 Eco-Scale** maintained at a pH less than 3.0.

Pipework

Soak in a hot solution of 10% **Triple7 Heavy Duty** overnight to remove organics if necessary. Water rinse, then flush with a 10% solution of **Triple7 Eco-Scale** maintained at a pH less than 3.0 to remove scale.

Genuine Green

- Lower disposal costs
- Readily biodegradable – greater than 70% total ingredients biodegradable within 28 days
- Listed by the Organic Materials Review Institute (OMRI) for use in organic production
- Made from renewable resources
- Non-toxic/non-hazardous – reduced OH&S issues
- GECA Certified

Pumps & Water Handling Equipment

For dismantled pumps and parts:

- Place in container and cover with 50:50 **Triple7 Eco-Scale** and water.
- Monitor pH level and add more **Triple7 Eco-Scale** if pH rises above 2.5. If pH has risen too high, discard solution and recommence cleaning process. Water rinse and re-assemble.

For installed pumps in systems:

- Fill the pump system with sufficient **Triple7 Eco-Scale** solution (between 10% and 50% dilution). Run the pump.
- Check for over-heating and that pH level is maintained below 2.5.
- As the pH level rises, add more product. Change liquid occasionally if needed.



Cost and Time Savings

Triple7 Eco-Scale has been successfully used to flush heat exchangers and sewer systems onboard marine equipment without removing the exchanger or failed pipe-work from the circulation system. This saves high removal and installation costs and time whilst allowing faster turn-around, along with a high standard of cleaning.

Cleaning Stainless Steel Pipe

A piece of stainless steel from a bore pump; the scale build-up was 7mm thick and laminar in appearance.

Triple7 Eco-Scale in an agitated bath was applied for approximately 7 hours.



Cleaning Pumps

Before: An extremely scaled-up pump.

After: Soaked in a 10% solution of **Triple7 Eco-Scale** overnight.

