



**envirofluid**<sup>®</sup>  
FOR A BETTER WORLD

# Triple7 EnviroScale Application Sheet



**The Governor of Victoria  
Export Awards**

Regional Exporter of the Year  
2022 Winner



**Australian Defence  
Industry Awards**

Manufacturer of the Year  
2022 Winner



# ENVIROSCALE<sup>®</sup>

## LOW CORROSION, ECO-FRIENDLY SCALE 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 EnviroScale** is a non-toxic, plant-based scale remover designed for its effectiveness, 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.

**Triple7 EnviroScale** will not harm equipment, and gives longer lifecycle maintenance and consequent cost advantages. Applications include: pipework, heat exchangers, boilers, condensers, wet-scrubbers, and chillers.

### 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 lifecycle maintenance
- Protects waterways & ecosystems
- Not affected by water hardness
- No oxalic acid

### Heat Exchangers, Condensers, and Chillers

Use a 10% solution of **Triple7 Heavy Duty** and circulate for 4 to 6 hours prior to scale removal. Rinse free with water. Apply a 10% solution of **Triple7 EnviroScale** 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%, rinse with water, followed by **Triple7 EnviroScale** maintained at a pH less than 3.0.

### Pipework

Soak in a hot solution of 10% **Triple7 Heavy Duty** overnight to unblock. Water rinse, then flush with a 10% solution to **Triple7 EnviroScale** maintained at a pH less than 3.0 to remove scale.

## Camping & Water Handling Equipment

---

### For dismantled pumps and parts:

Place in container and cover with 50:50 **Triple7 EnviroScale** and water.

Monitor pH level and add more Triple7 EnviroScale if pH rises above 2.5. If pH has risen too high, discard solution and recommence cleaning process. Water rinse and re-assemble.

### For assembled pumps in the workshop:

Cover fully assembled pump with sufficient **Triple7 EnviroScale** solution (between 10% and 50%). Run the pump. Check for over-heating and that pH level is maintained below 2.5. As the pH level rises, add more **Triple7 EnviroScale**. Change liquid occasionally if needed.

## Preventative Maintenance

---

**Triple7 EnviroScale** is pH dependent and cannot be dosed into the pump in the same way as **Triple7 Envirobore**.

**Triple7 Envirobore** is recommended to prevent iron bacteria or iron sludge from building-up and a simple dosing pump that adds 5-20 ppm on a regular basis, gives good results.

A complete descaling program would be to use **Triple7 EnviroScale** to thoroughly remove accumulation. Once clean, use **Triple7 Envirobore** regularly to prevent further problems.

## Cleaning Stainless Steel Pipe

---



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



**Triple7 EnviroScale** in an agitated bath was applied for approximately 7 hours.

## Marine Maintenance

---

**Triple7 EnviroScale** is now included in the Navy Technical Acquaint for scale removing compounds. NSN 6850-66-152-0080, NSN 6850-66-152-0081.

### Demister Pads

Remove pads and spray the entire pad with a 5% solution **Triple7 Heavy Duty**. Soak or stand overnight then follow with a low pressure steam clean.

**Triple7 EnviroScale** has been successfully used to flush heat exchangers and sewer systems on one of the HMAS fleet without first removing the exchanger from the ship. This saved a lot of money and time and allowed a faster turn-around, along with a high standard of cleaning.

## Cleaning Pumps

---



An extremely scaled-up pump.



Soaked in 10% solution of **Triple7 EnviroScale** overnight.

## Component Cleaning

---



Samples before treatment



Samples after treatment

There was no obvious change in weight, appearance, dimension, or physical properties for any of the metal and rubber samples.

## Component Cleaning

---



Original valves as received



After agitation in **Triple7 Heavy Duty** and **Triple7 EnviroScale** baths