



ALPACON ALTREAT 400

Scale inhibitor for fresh water generators and desalination plants

Cost-effective recovery of fresh water from seawater is critical to a wide range of industries such as the power, chemical, marine, oil and gas industries. During the distillation process, the formation of scale on heat transfer surfaces can significantly reduce heat transfer efficiency and increase operation and maintenance costs.

Scale formation depends on temperature, concentration and pH, but generally takes the form of:

- calcium carbonate,
- magnesium hydroxide, and,
- calcium sulphate.

Conventional scale inhibition methods, such as the use of sulphuric acid and polyphosphates, have given rise to a new generation of antiscalants based on polycarboxylic acids.

Concept

Alpacon Altreat 400 scale inhibitor is a polycarboxylic acid that controls inorganic scale formation. Small amounts of this copolymer, based on maleic acid, effectively handles large quantities of dissolved salts, thus preventing precipitation, settling and baking onto heat transfer surfaces.

Alpacon Altreat 400 also impairs crystal growth, modifying the crystal structure to create a soft sludge byproduct that does not adhere to heat transfer surfaces.

Alpacon Altreat 400 readily dissolves in any type of water. The typical dosage to feedwater ranges from a minimum of two parts per million (ppm) to a maximum of 10 ppm, depending on the quality of the seawater.

This versatile antiscalant effectively performs at the range of temperatures encountered during mechanical vapour compression and during single and multi-effect distillation processes.

Test results demonstrate that Alpacon Altreat 400 is more effective than other scale inhibitors under variable conditions, including water type, temperature and run time.



Features and benefits

- Highly concentrated liquid delivers substantial savings since up to 40% less solution than other polymaleates is required to achieve the same effect.
- Highly effective, but gentle, solution does not harm the environment or heat exchanger tubes, plates, gaskets or glue.
- Highly versatile scale inhibitor delivers effective performance while operating in temperatures up to 80°C.
- Helps maintain heat transfer rates, thus improving process performance, reducing energy costs and prolonging heat exchanger lifetime.
- Increases the efficiency and performance of the equipment, reducing total operation and maintenance costs.
- Certified drinking water treatment chemical by NSF and KIWA.

Instructions for use

Normal dosing rate 2–10 ppm (max. 10 ppm), depending on the properties of the water to be treated.

Ensure adequate mixing at chemical tank before dosing into the system.

Recommended operating temperatures: 50°–80°C.

Storage

Keep container tightly closed and in a cool place.

Personal protection

Use safety goggles and protective gloves.

First aid measurements

General: Remove contaminated clothing.

Skin: Wash thoroughly with soap and water.

Eyes: Wash affected eyes for at least 15 minutes under running water with eyelids held open.

Inhalation: If difficulties occur after vapour/aerosol has been inhaled, remove to fresh air and seek medical attention.

Ingestion: Rinse mouth and then drink plenty of water.

Technical specification

Appearance:	Light brown liquid
Density:	Approx. 1,3 g/cm ³
Viscosity:	600 mm ² /s at 23°C
Flash point:	>100°C
pH:	Approx. 8 at 20°C
Miscibility with water:	In all proportions

Content

Polymerised acid, modified as sodium salt in water.

Ordering information

Part No. 25 litre plastic can 985 00056-82

Part No. 200 litre plastic drum 985 00056-81

How to contact Alfa Laval

Contact details for all countries are continually updated on our web site. Please visit www.alfalaval.com to access the information direct.