

CT-2090

Reverse osmosis scale inhibitor

Introduction

CT-2090 is a multifunctional antiscalant for reverse osmosis system, highly effective in preventing calcium carbonate scale formation on membrane surfaces. Beside its excellent calcium carbonate scale inhibition properties.

CT-2090 is effectively controlling calcium sulphate, calcium fluoride and metal oxides formation.

CT-2090 has compatibility approvals from membrane manufactures. All ingredients in **CT-2090** are certified to **ANSI/NSF** standard 60 for use in reverse systems producing potable water.

Physical Properties

Appearance.....	Clear yellow liquid
S.G.....	1.3 ± 0.02
PH.....	11 – 11.5
Flash Point.....	Nonflammable
Odor.....	Odorless
Solubility.....	Completely soluble

Application

CT-2090 is equivalent to **PERMA TREAT 191** (the same formula, effect and same physical properties)

CT-2090 is an aqueous solution of organic acids and is corrosive in its concentrated form. Corrosion resistant dosing equipment must therefore be used. Examples of suitable materials are **PVC**, glass reinforced plastic or **HDPE**.

Recommended injection point is into the feed water down stream of any filtration equipment and cartridge filters.

CT-2090 is miscible with water in all proportions. It may be applied as the neat product, or as a solution in permeate water. Minimum dosing solution strength of 10%w\w is recommended.

CT-2090 should be dosed continuously and proportionately to the feed water flow, to maintain the recommended dosage level.

Recommended operation limits of the most relevant brine water parameters:

- Silica: up to 200 ppm max.
- LSI :<2.78
- Iron :< 1 ppm max.
- Aluminium :<0.5 ppm
- Calcium sulphate: up to 8000 ppm max.

Dose level projections and optimal system recovery recommendation are available on request.

Chemical Reactivity

CT-2090 is not affected by chlorine or other oxidizing biocides under normal Conditions of use.

CT-2090 should be injected in membrane systems after chlorine and sodium met bisulphite treatment.

CT-2090 is compatible with residual cationic monomers from the pre-treatment.

Health and Safety

From results of acute studies **CT-2090** is classified as non-toxic.

A Material Safety Data Sheet is available on request.

Regulatory

All I gradients in **CT-2090** are ANSI\NSF standard 60 for use in reverse osmosis system producing potable water

Toxicology data

Acute oral LD 50 (rats)	> 2000mg/kg
Eye irritation (rabbits)	irritant (EEC guidelines)
Skin irritation (rabbits)	non- irritant (EEC guidelines)

Ecological data

96-hr LC50 (rainbow trout) > 100 mg/l

Logistics

Classification:

- Corrosive for conveyance
- Irritant for supply

Packaging

CT-2090 is available in 25, 220 kg plastic container.