

TH-0100 RO Antiscalant and Dispersant

Properties:

TH-0100 is a high-effective scale inhibitor, it is suitable for reverse osmosis (RO), nanofiltration (NF) and ultrafiltration (UF) system. It can inhibit the scale deposit on membrane surface, improve water quality, lower operation expense. This product has the following properties:

- (1). Inhibit inorganic scale formation for a wide concentration span, the largest permitted LSI value is 2.8 when no acid is added.
- (2). Not flocculate with ferric oxide, alumina oxide or silica oxide to form suspended substance;
- (3). Inhibit the pollution from ferric, aluminium or heavy metals pollutants. The permitted ferric concentration for inlet water supply can reach to 8.0ppm.
- (4). Inhibit the flocculate and deposit of silica, the permitted silica concentration for condense side can reach to 290ppm.
- (5). Be used in CA, TFC, NF and UF membranes for RO system.
- (6). Good solubility and stability.
- (7). Effective in pH 5-10.

Specification:

items	Standard	Condense
Appearance	Clear liquid	Clear transparent liquid
pH, (1% water solution)	2.0 ± 0.5	2.0 ± 0.5
Density (20°C) g/cm ³	1.08 ± 0.05	1.45 ± 0.05
Main content	Micromolecular containing P	Micromolecular containing P
Decomposed product under high temperature	orthophosphate	orthophosphate

Package and Storage:

The original package is 8 times condense liquid, 5 gallon (27.55kg) per barrel. After diluting 8 times, 220.4kg per barrel.

Usage Method:

The dosage is determined by water quality analysis and condition of RO system. For recommended dosage, most scales can be under control such as calcium carbonate, calcium sulfate, barium sulfate, ferric hydroxide, aluminium hydroxide and silica.

The following formula can be used to calculate the required TH-0100 volumes:

$$U = \frac{Q \times a \times V}{8 \times 1000 \times \rho \times x}$$

- where: U—— condense liquid volumes required, Litre, (L)
Q—— RO water supply flow, tons/hour (T/h)
a—— dosage required, gram/ton, (ppm, g/T) (standard liquid)
V—— effective volume of medicine box, litre (L)
 ρ —— density of the TH-0100, kg/L, the density is 1.45
x—— the actual flow of medicine operation pump, litre/hour (L/h)
1000 —— conversion coefficient
8 —— condense index

Notes: the value “a” (dosage required) can refer to the manual of QingLi Company.