



Deser.
Su ve Kimya Teknolojileri A.Ş.

SCALE OFF 5000

**EFFICIENT ANTISCALANT
FOR THE MINING INDUSTRY**



SCALE OFF 5000

EFFICIENT ANTISCALANT FOR THE MINING INDUSTRY

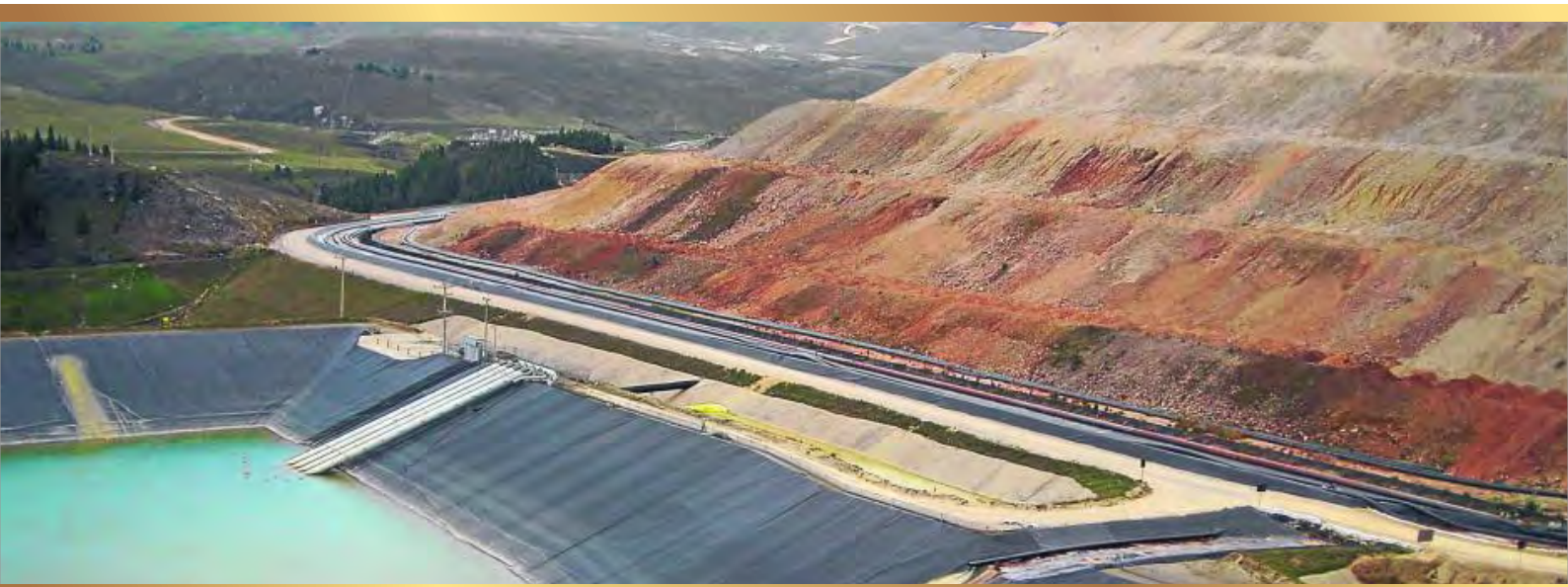
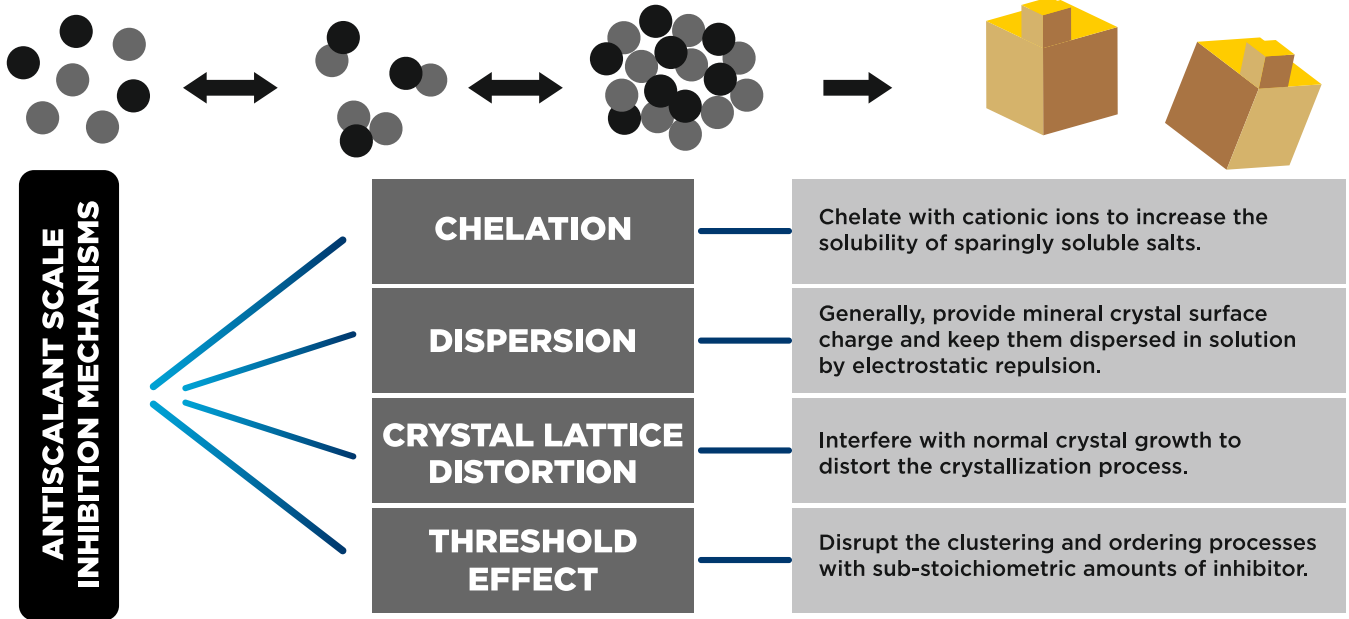
SCALE OFF 5000 series is a chemically stable, non-oxidizing acidic antiscalant. Therefore, it is safe for use. It can be used as an acidic cleaning product in specialist applications.

| METHODS | DETAILS | ADVANTAGES | DISADVANTAGES |
|---|--|---|---|
| FEED WATER PRETREATMENT | Softening, pH adjustment, and the use of larger pore size membrane. | Reduce the amounts of scaleforming ions in feed water; reduce the scaling propensity. | Requirement of additional equipment; corrosion problem, etc. |
| THE OPTIMIZATION OF OPERATIONEL PROCESSES | Feed water characteristics, crossflow velocity, the design of feed spacer, applied pressure, hydrodynamic conditions, the setting of membrane cleaning or target recovery. | Improve membrane surface environment; remove existing deposits. | Membrane damage caused by high pressure and frequent cleaning; increase energy consumption; reduced permeate production, etc. |
| THE DEVELOPMENT OF NOVEL MEMBRANE MATERIALS | Surface modification, physical blending | Improve the antifouling performance of membrane. | Relatively high cost and not commercializable yet |
| THE ADDITION OF ANTISCALANT | Inhibit scale formation by chelation, dispersion, crystal distrotrion and threshold effect. | Achieve high water recovery; simple operation; high cost performance. | Increased biofouling; phosphorus emmissions; difficult concentrate disposal. |

Scale is a common problem in mining operations. Scale build-up results in reduced flows in pipelines, tanks, heat exchangers, pumps and nozzles, increased energy costs, costly downtime and scale removal for heating or cooling efficiency and cleaning. Scale formation is usually greatly reduced while it can be appropriately reduced (depending on system chemistry) The use of Deser Kimya antiscalants almost always helps in removing existing scale.

Cyanide leaching of gold can result in the formation of calcite deposits, because pH control is usually done with lime, and the pH of the leaching solution is too high after cyanide addition. Using SCALE OFF 5000 to remove scale in this process, cyanide solutions of strong acid, cyanide-containing residues and the risk of potential contamination of heap leach heaps with strong acid.

- 01 It is not one of the phosphonate-based antiscalants produced as standard.
- 02 It does not have a negativ 1 effect on the membranes in high dosing amounts.
- 03 High anti-clogging performance
- 04 It is effective in difficult waters containing high levels of sulfate.
- 05 SCALE OFF performs effectively at low dosage amounts.



It shows effective performance in descaling of sensitive alloys. SCALE OFF 5000 is a multi-component liquid antiscalant and dispersant that provides high levels of sulfate inhibition and allows reverse osmosis (RO) system recovery in challenging waters. Calcium sulfate (CaSO_4) prevents sedimentation and allows saturation at higher concentrations. The primary application of this product is mineral waters or sulfate-rich wastewater that requires a special product for economical membrane system recovery. It is formulated with a crystal modification property that disrupts inorganic salt crystal growth to reduce system fouling. Threshold scale inhibition at low dose rates allows the system to operate economically. It is highly effective in a wide range of feed waters and pH ranges.

| | |
|-------------------|-----------------|
| Calcium Carbonate | CaCO_3 |
| Calcium Sulphate | CaSO_4 |
| Calcium Fluoride | CaF_2 |
| Silica | SiO_2 |

The SCALE OFF 5000 Series has a very wide range of action.



SCALEOFF 5000

SCALE OFF 5010

Effective against Calcium, Sulfate and Iron in mineral waters

SCALE OFF 5020

It is effective against Calcium, Magnesium, Sulphate, Iron, Manganese, Chlorine and Silice in mineral waters.

SCALE OFF 5030

Superior performance against Calcium, Magnesium, Sulphate, Iron, Manganese, Phosphate, Chlorine and Silice in mineral waters



Deser
Su ve Kimya Teknolojileri A.Ş.



0 312 287 53 55

@deserkimya Deser Kimya

www.deserkimya.com

Ostim Teknopark Turuncu Bina
Cevat Dünder Cad No:1/1
İç Kapı No:64, Yenimahalle ANKARA