

## SCALE PREVENTION

### Scale Inhibitor ICS

#### OVERVIEW

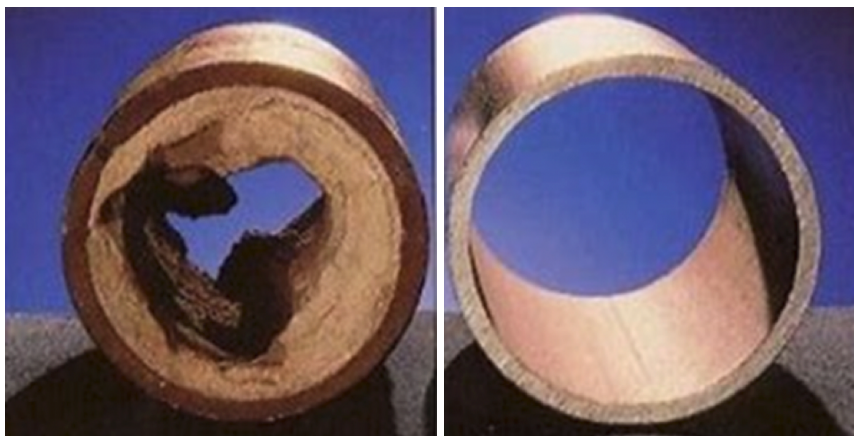
Phosphonate based scale inhibitors ICS-12, it is designed to prevent the deposition of complex mineral salts, such as carbonates and sulfates and barium in oilfield equipment during oil production.

#### POTENTIAL APPLICATION

Casing, tubing, valves, and pumps are all surface for carbonate and sulfate scales deposition. These scales consist of solid calcium carbonate and sulfate minerals that accumulate over time. As the layer of deposits thickens, it reduces the tubular diameter and eventually creates blockages that interfere with fluid movement and restrict flow reducing production or in worst cases stopping production altogether.

Removing scale buildup from oilfield wells and pipelines takes several hours and results in costly equipment shutdown. Preventing buildup with a scale inhibitor is an effective way to keep oil processing systems clean and minimize equipment downtime.

Property	Value
Appearance	Uniform liquid, amber color
Density at 20°C, gr/cm <sup>3</sup>	1.20 – 1.25
Mass of active component, %	Not less than 40%
pH	6.5 – 7.5
Solubility	Soluble in water



#### FEATURES AND BENEFITS

- Excellent carbonate and sulfate scale inhibitor
- Superior barium sulfate, calcium sulfate and calcium carbonate inhibitor – works at low concentration
- Excellent product stability at high temperature
- Good stability with freeze-protecting solvents, such as ethylene glycol and methanol

#### STORAGE AND PACKAGING

When stored in the original unopened containers, Scale Inhibitor ICS has a usable life of 18 months from the date of production. Scale Inhibitor ICS is available in 200-ltr drums and 1000-ltr cubes.

#### LIMITS

In order to create a high-quality scale protection, a dedicated product selection is required for any specific deposit condition. Optimal dosage of the most effective scale inhibitor is determined through a series of laboratory tests.