

# **ES-16 SCALE INHIBITOR STICK**

## DESCRIPTION:

ES-16 Scale Inhibitor Sticks are composed of hydroxyamine phosphate ester and surfactants in a solid stick form. This unique product is designed to prevent the formation of calcium and magnesium carbonate, barium and strontium sulfate and iron scales in water systems. The surfactants in this product give it a wide range of dispensability. Upon application to the system, ES-16 Scale Inhibitor Sticks will begin to dissolve into the water. As the product is dispersed, it will act as a crystal distorter, helping keep the scale causing minerals dissolved in the water.

#### USAGE:

ES-16 Scale Inhibitor Sticks have a broad range of effective applications. This product can be used in flowing well, pumping wells, primary and secondary water handling systems.

#### USAGE – FLOWING WELLS:

ES-16 Scale Inhibitor Sticks can be applied to flowing wells via a lubricator installed on top of the wellhead. Upon application, the stick will fall to the bottom of the water level, through any crude or distillate. There, they will begin to dissolve, releasing the highly concentrated scale inhibitor. As the scale inhibitor is released it disperses into the produced fluids. When the well is opened back up, the inhibitor will travel along with the produced fluids acting as a crystal distorter in the water.

This method of treatment has an advantage over liquid chemical truck treating, batch treating and tubing displacement in low pressure flowing wells in that it is not near as likely to load up and "kill" the well.

USAGE – PUMPING WELLS:

ES-16 Scale Inhibitor Sticks can be applied effectively to pumping wells by installing a simple, side stream flush and a lubricating pot from the flow line to the casing. The scale inhibitor sticks are introduced to the system via the lubricator. As produced fluid from the side stream flush flows by the stick, the stick will begin to slowly dissolve. As the stick dissolves, the scale inhibitor is dispersed into the produced fluids. The scale inhibitor then begins to prevent the mineral deposits from forming on the system surfaces. This method of application has many advantages over continuous injection, batch treating or pump truck treating of liquid inhibitors. By using this method of application, costly chemical pumps and drums or bulk tanks of hazardous liquid chemicals can be eliminated. The exact amount of product needed can be applied, saving the user money from over treating due to faulty injection equipment.

Eagle Solid Products, Inc., P. O. Box 2425, Conroe, TX 77305: (936) 788-1366: www.eaglesolid.com

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USAGE – PRIMARY AND SECONDARY WATER HANDLING SYSTEMS:

ES-16 Scale Inhibitor Sticks can be used to protect water tanks, injection pumps, flow lines and injection or disposal tubing. This product may be suspended directly into water tanks with a perforated basket or lubricated into the flow lines. In both cases the flow of water will dissolve the stick and carry the inhibitor through out the system.

#### TREATING RATES:

A daily, weekly or bi-weekly treating program is usually necessary. Scale can only be prevented if an adequate parts per million (ppm) of inhibitor is maintained in the water. One 1-5/8" X 18" or two 1-3/8" X 15-1/2" sticks will yield 200 ppm of product per 100 barrels of fluid. A treating rate from 25 ppm to 100 ppm is recommended.

There are many factors that will determine the exact treating rates needed for each particular system. Consult your Eagle Solid Products, Inc., representative for technical assistance.

HANDLING AND STORAGE:

ES-16 Scale Inhibitor Sticks are industrial chemicals. All safety and handling on the product container and material safety data sheet must be followed. For detailed safety and disposal information, consult the material safety data sheet. This product should be stored in a cool, dry location.

### PHYSICAL PROPERTIES:

FORM	- Solid cylindrical
COLOR	Off White
DENSITY (150°F, lbs/ gal)	12.5
SPECIFIC GRAVITY	1.500
MELTING POINT	135 <sup>0</sup> F
AVAILABILITY:	

ES-16 Scale Inhibitor Sticks are available in the following sizes: 1-5/8" X 18", 1-3/8" X 15", 1-1/4" X 15". The 1-5/8" X 18" are packed 40 sticks per case. The 1-3/8" X 15" and the 1-1/4" X 15" come packaged 70 sticks per case. They are available in 50-quart coolers, Dry boxes and other containers. Contact Eagle Solid Products, Inc. for more details.

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