



ALTACHEM LTD.

Technical Data Sheet

Altachem Part No: AC-40 Series

EDMONTON STOCK SIZE

Select Part No: FS-1257
Texas Star

FISHER KING SC-21 SOAP STICKS

(MEDIUM TO HIGH FOAMER FOR WER) (OK IN CONDENSATE TO 40%)

			Color – Red	Packaging – Cardboard Tube		
			TDG – Non-Regulated Product	Allowable – Air or Ocean Freight		
FISHER KING SC-21 SOAP STICK SIZES			STICKS INITIAL SLUG TREATMENT	Weight Ea. Stick.		
5/8 x 15	.625 x 15	15.88 x 381 mm	8-17 Sticks Per 1 BBL of Water	4 oz	.25 lbs.	110.6625 g.
3/4 x 15	.75 X 15	19.05 x 381 mm	5-10 Sticks Per 1 BBL of Water	4.5 oz	.28125 lbs.	127.6875 g.
1 x 15	1 x 15	25.4 x 381 mm	3-6 Sticks Per 1 BBL of Water	8.1 oz	.50625 lbs.	229.8375 g.
1 ¼ x 15	1.25 x 15	31.75 x 381 mm	2-4 Sticks Per 1 BBL of Water	11.5 oz.	0.71875 lbs.	326.3125 g.
Estimated hydrostatic back pressure reduction for ea. BBL of water removed (for various tubing sizes)						
THE ESTIMATED HYDROSTATIC BACK-PRESSURE REDUCTION FOR EACH BARREL OF WATER REMOVED (FOR VARIOUS TUBING SIZES) IS SHOWN BELOW (BASED ON .43 PSI PER FOOT OF DEPTH)						
2 3/8 “	2.375	60.325 mm	100 PSI REDUCTION FOR 1 BBL OF WATER REMOVED			
2 7/8”	2.875	73.025 mm	75 PSI REDUCTION FOR 1 BBL OF WATER REMOVED			
3 1/2 “	3.5	88.9 mm	50 PSI REDUCTION FOR 1 BBL OF WATER REMOVED			
HS Code	3402.9010.09		Regulations		TDG	
Form	Solid		Melting Point		122°F – 50°C	
Color	Red		Solubility in Water		100%	
pH	7 - 8		Solubility in Brine		100%	
Specific Gravity	1.11		Solubility in Crude		Insoluble	

NOTE:

The above amount is recommended for an initial slug treatment. In many cases, removing the top few hundred feet of fluid may be sufficient to allow the production of natural gas to blow out the remaining fluid in the well. To determine the optimum amount for periodic treatments you may choose to gradually reduce the initial treatment amount until the most economical point is reached. Periodic treatments with **FISHER KING SC-21 STICKS (FS-1257)(TEXAS STAR)** may be necessary to prevent production decline due to the water build-up. It is much easier to maintain gas production with regular insertion of **FISHER KING SC-21 STICKS (FS-1257)(TEXAS STAR)** than it is to kick off a dead well. Gas bubbling through water is necessary to create foam. If a well is totally dead, **GAS-CO2-SWAB STICKS™** may be used in conjunction with **SUPER FOAM STICKS** to provide agitation energy.

FISHER KING SC-21 STICKS (FS-1257)(TEXAS STAR) are designed to be used for wells making 5-10 barrels of water (0-200,000 PPM Chlorides) and up to 40% condensate. For gas-condensate wells with more than 40% condensate, it is recommended to use **SUPER FOAM STICKS** for up to 65% condensate. When the fluid is over the 65% condensate or condensate it is best to use the **OILFOAM STICKS** which can handle much greater amounts of this type of fluid. When the ratios of Condensate and Water are unknown the **SLICKWILLIE OILFOAM STICK** is a good choice.

FISHER KING SC-21 STICKS (FS-1257)(TEXAS STAR) may also be used in combination with the **ACID STICKS®** in water injection wells to remove oil coating on scale allowing the **ACID STICKS®** to react with the exposed scale helping reduce injection pressures.

PRODUCT USES & ADVANTAGES

FS-1257/FISHER KING SC-21 STICKS are primarily used to remove water from gas wells and increase gas production. The foaming action decreases the hydrostatic backpressure which increases gas production that further enhances the foaming action until the well unloads.

SAFETY & HANDLING

Please review SDS prior to using this product. As with all industrial chemicals, contact with eyes or skin should be avoided. Wash thoroughly with water if contact with skin is made. Balls should be stored in a cool dry place. Always remove ball from plastic bag or cardboard tube before using. Bag or tube can be used as a glove to avoid contact with hands.

DISCLAIMER OF LIABILITY

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PRODUCT USES & ADVANTAGES (Continued)

FISHER KING SC-21 STICKS (FS-1257)(TEXAS STAR) can be used to remove fluid from gas-condensate wells and flowing oil wells. For gas-condensate wells with more than 65% condensate, it is recommended to use **OILFOAM STICKS** in conjunction with **FISHER KING SC-21 STICKS (FS-1257)(TEXAS STAR)**.

FISHER KING SC-21 STICKS (FS-1257)(TEXAS STAR) are used to increase the swabbing efficiency and life of swab cups. The slick coating along with the foaming action increases efficiency and life of the swab cups and allows the well to flow easier. The perforations are often cleaned because of the surfactants and swabbing action.

FISHER KING SC-21 STICKS (FS-1257)(TEXAS STAR) are used in water injection wells in combination with **ACID STICKS®** to help reduce injection pressures. Surfactants contained in **FISHER KING SC-21 STICKS (FS-1257)(TEXAS STAR)** can help remove oil coatings on scale. This helps the **ACID STICKS®** react with the exposed scale.

FISHER KING SC-21 STICKS (FS-1257)(TEXAS STAR) are an economical way to remove water from gas wells without using expensive well service operations such as swabbing, jetting with coiled tubing, or installing artificial lift and siphon strings.

TREATMENT DETERMINATION & PROCEDURE FOR WATER REMOVAL

The number of **FISHER KING SC-21 STICKS (FS-1257)(TEXAS STAR)** to be used is based on the volume of water above the perforations. Field tests indicate that the best results were achieved by using a larger initial slug treatment of ½ to 1 percent by weight of **FISHER KING SC-21 STICKS (FS-1257)(TEXAS STAR)** to water above the perforations. A treatment of ½ to 1 percent by weight would require 1.75 to 3.50 lbs. of stick per BBL of water.

THE MOST COMMON PROCEDURE

Is to shut-in the well and drop sticks through a lubricator. Wait 45 seconds until sticks contact top of fluid then slowly return well to normal production. Repeat procedure if or when it becomes necessary. **FOR HIGH-RATE WELLS** (after sticks have contacted the top of fluid) flow well at about 25% of pretreatment rate for about 20 minutes or until foam reaches surface then return to normal rate. **FOR SHALLOW OR LOW-RATE WELLS leave well flowing while dropping sticks if possible.**

PRODUCT SPECIFICATIONS

The stick will normally dissolve in 20 to 80 minutes depending on temperature, salt content, and relative water motion. **FISHER KING SC-21 STICKS (FS-1257)(TEXAS STAR)** are 100% soluble in water and insoluble in oil. The melting point of the sticks is 122°F. The stick will dissolve in water in wells with BHT below 122° (just at a slower rate). Lab tests indicate the dissolving rate in 50,000 PPM moving brine water to be 72 minutes @ 100°, 25 minutes @ 120°, 8 minutes @ 140°, and 3 minutes @ 180°. The dissolving time will decrease if the sticks are broken before dropping or if they break upon impact with the top of the fluid. The specific gravity is 1.11. The falling rate through fresh water is approximately 100 feet per minute. The sticks can free fall (through air) 3,000 feet in about 15 seconds. Gas moving up tubing will often change falling characteristics.

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