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FLURO – GAS CONDENSATE SOAP STICKS

(High Condensate Foamer-Hydrocarbon-Oil-Cond Over 70%)

			Altachem Part # ACL-082-AC-82 Fluro – Gas Condensate Foam Stick	
Cardboard Tube	Color = Light Blue	TDG – Non-Regulated	Allowed Air or Ocean Freight	
FLURO – GAS CONDENSATE STICK SIZES			PER BBL (INITIAL SLUG TREATMENT)	WEIGHT
¾ X 15	.75 X 15	19.05 x 381 mm	6-10 Sticks Per 1 BBL of Fluid	0.36125 LBS
1 x 15	1 x 15	25.4 x 381 mm	3-6 Sticks Per 1 BBL of Fluid	0.48125 LBS
1 ¼ x 15	1.25 x 15	31.75 x 381 mm	2-4 Sticks Per 1 BBL of Fluid	0.73125 LBS
1 5/8 x 18	1.625 x 18	41.275 x 457.2 mm	1-2 Sticks Per 1 BBL of Fluid	1.43125 LBS

HS Code	3402-9010-00	Regulations	TDG Non-Regulated
Form	Solid	Melting Point	130°F (54.4°C)
Color	Light Blue	Solubility in Water	100%
pH	6.5-7.5	Solubility in Brine	100%
Specific Gravity	1.08	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 **FLURO-GAS CONDENSATE SOAP STICKS** may be necessary to prevent production decline due to the gradual water build-up. It is much easier to maintain gas production with regular insertion of **FLURO-GAS CONDENSATE SOAP STICKS** 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 STICKS™** may be used in conjunction with **SUPER FOAM STICKS** or **FLURO-GAS CONDENSATE SOAP STICKS** to provide agitation energy. Some water must be present for **GAS STICKS™** to produce gas.

PRODUCT USES & ADVANTAGES

FLURO-GAS CONDENSATE SOAP STICKS are primarily used to increase gas production by removing FLURO, hydrocarbons and water from gas-FLURO wells. **FLURO-GAS CONDENSATE SOAP STICKS** are recommended only when over 75% of column fluid is composed of FLURO/hydrocarbon. If the fluid contains over 25% water, it is recommended to use a **SUPERFOAM STICKS** only or a combination of both **FLURO-GAS CONDENSATE SOAP STICKS** and **SUPERFOAM STICKS** to be more effective in removing fluid. For help determining the best combination of products please contact your representative.

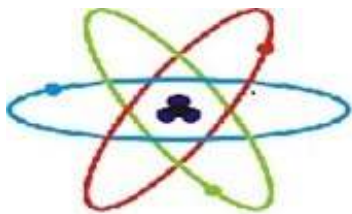
FLURO-GAS CONDENSATE SOAP STICKS S can be used to remove fluid from gas-FLURO wells and flowing oil wells. For gas- condensate wells with more than 45% condensate, it is recommended to use **SUPERFOAM STICKS to 65% once over that either an OILFOAM STICKS™ or FLURO-GAS CONDENSATE SOAP STICKS** in conjunction with the **SUPERFOAM STICKS** will complete the job

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. Sticks should be stored in a cool dry place. Always remove stick from plastic bag & cardboard tube ~~causing~~ Bag or tube can be used as a glove to avoid contact with hands. Acid Cap Sticks may have a limited shelf life of 120 days and should be ordered for immediate use only.

DISCLAIMER OF LIABILITY

The information in this bulletin is believed to be accurate, however all recommendations are made without warranty since the conditions of use are beyond Altachem Ltd. control. Altachem Ltd. disclaims any liability in connection with the use of the information and does not warrant against infringement by reason of the use of any of its' products in combination with any other material or in any process.



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PRODUCT USES & ADVANTAGES (Continued)

FLURO-GAS CONDENSATE SOAP STICKS are used in water injection wells in combination with **ACID STICKS®** to help reduce injection pressures. Surfactants contained in **FLURO-GAS CONDENSATE SOAP STICKS** can help remove oil coatings on scale. This helps the **ACID STICKS®** react with the exposed scale.

FLURO-GAS CONDENSATE SOAP STICKS are recommended only when over 75% percent of fluid column is composed of condensate. If the fluid column contains over 25 percent water, it is recommended to use **SLICK STICKS** only or a combination of both **FLURO-GAS CONDENSATE SOAP STICKS** and **SLICK STICKS** to be more effective in removing the fluid.

FLURO-GAS CONDENSATE SOAP STICKS are an economical way to remove FLURO and water from gas condensate 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 **FLURO-GAS CONDENSATE SOAP STICKS** 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 0.5 % to 1.0 % by weight of **FLURO-GAS CONDENSATE SOAP STICKS** to water above the perforations. A treatment of 0.5 % to 1.0 % by weight would require approximately 1.75 to 3.50 lbs of stick per BBL of fluid.

THE MOST COMMON PROCEDURE

Is to shut-in the well, first remove the cardboard tube and then drop sticks through a lubricator and return the well to production. This procedure is best for open-hole, no rat-hole, low-rate wells, or wells deeper than 3,300 feet. **FOR SHALLOW OR LOW-RATE WELLS** leave well flowing while dropping sticks if possible. **FOR DEEPER HIGHER RATE WELLS** drop sticks and leave well shut-in about 15 minutes or until sticks fall to the perforations (whichever occurs first) then return well to production. The time in minutes for the sticks to fall to the perforations in a shut-in well is equal to the depth of perforations divided by 110. (Time, min = Depth, ft/ 110)

PRODUCT SPECIFICATIONS

The stick will normally dissolve in 20 to 80 minutes depending on temperature, salt content, and relative water motion. **FLURO-GAS CONDENSATE SOAP STICKS** are 100% soluble in water and insoluble in oil. The melting point of the sticks is 130°F. The stick will dissolve in water in wells with BHT below 130° (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 1.08. 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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