Sandstone acid systems

Applications

- Production and injection wells completed in sandstone formations
- Sand control completions (including screen and gravel pack completions)
- Sandstone matrix and fracture acidizing
- Geothermal well stimulation
- Fines removal and stabilization treatments (in combination with fines-stabilizing agent FSA-1)
- Single-step (no acid preflush) application

Features and Benefits

- improves well productivity
- Minimizes health, safety, and environment risks
- Reduces risk of formation deconsolidation from excessive sandface dissolution
- Reaches deeper into the formation than conventional acid systems, providing access to more reserves
- Much lower total acid in solution, while maintaining high-dissolving power (HF) potential
- Deeper live acid penetration and damage removal

The Baker Hughes **Sandstone Acid™ (SSA) systems** are proprietary hydrofluoric (HF) generating systems designed for stimulation of sandstone formations. SSA systems are low total acidity and high-dissolving power solutions to remove fines damage and stimulate flow paths beyond the near-wellbore formation region. The Baker Hughes acid systems are specially designed to control HF acid generation in situ and subsequent acid spending; thereby, providing deeper effective treatment compared to conventional HF mud acid and so-called retarded acid treatment solutions.

Safety Precautions

Refer to the material safety data sheet for information and first aid.

References

- MSDS
- Sandstone acid system brochure

Sandstone Acid System vs. Regular Strength Mud Acid

Acid system	Water + Additives	Acid blend*	HF-generating component**
	Gallons per 1,000 gal total treatment solution		
12% HCl - 3% HF (mud acid)	385	462	153
SSA (3% HF)	377	70	153

* SSA system blend contains organic acid complex for precipitation control (HV-acid).

** Based on 36% ammonium fluoride (NH4F).