

# LST-36

## Surfactant

### Nonionic Surfactant

**Description** LST-36 is a multi-functional mixture of surfactants that reduces surface and interfacial tension and strongly water wets the surface of solids. LST-36 dramatically improves the penetrating ability of acid and promotes foamy returns in spent acid and aqueous frac fluids. LST-36 is a highly effective dispersant for hydrocarbons in fresh water, brines and acid. The superior surface tension lowering ability of LST-36 makes it ideal for treatments in water injection wells. LST-36 at 1% in HCl makes an excellent base for mud clean out acid.

<b>Properties</b>	Form:	Liquid	Chemical Family:	Surfactant
	Color:	Clear, Colorless	Solubility:	Water, Acid Brines
	Odor:	Alcoholic	Weight:	8.30 lb/gal
	Charge:	Nonionic	Flash Point:	114°F (45°C)

**Application** LST-36 can be used in any water based fluid where water wetting and the reduction of surface and interfacial tension are desired. LST-36 is suited for applications including matrix and fracture acidizing, hydraulic fracturing and in the production of oil and gas wells. Typical dosages of LST-36 range from 0.5 – 5.0 gal/Mgal of fluid. To improve the penetrating ability of acid use 5.0 gal/Mgal of acid. For fracturing fluids 1.0 – 2.0 gal/Mgal reduces surface tension, disperses fines and improves water recovery.

**Compatibility** LST-36 is nonionic and compatible with cationic, anionic, amphoteric and other nonionic additives.

**Handling** LST-36 is a flammable liquid and should be stored away from heat, sparks and open flame. Keep container tightly sealed and vented to prevent evaporation, contamination, and explosion hazards. Use only with adequate ventilation. It can cause eye, skin and respiratory tract irritation by contact. Do not breathe vapors, especially in a confined area. Recommend use of chemical splash goggles and rubber gloves during handling. Refer to Material Safety Data Sheet (MSDS) for handling and hazard data.

**Packaging** LST-36 is shipped in 55 gallon poly drums or 330 gallon tote tanks.