

DPA Additive I - KMA008

1. Introduction

Hydrofluoric acids are widely used in oilfields to remove damages in sandstone formations. There are usually two ways to prepare hydrofluoric acids. One is using concentrated (generally 20%) HF, and the other is to obtain HF by reaction between a precursor and HCl to avoid hazards of handling HF directly. KMA008 is a HF precursor for acid systems used in sandstone matrix stimulation treatment.

2. Physical Properties and Hazards

Additives	Form	S.G.	Water Solubility	Health Hazard	Physical Hazard	pH
KMA008	White crystals	1.40-1.60	Soluble	Eyes, skin	Dust	2.0-2.5 (0.5%)

3. Chemical Properties and Application

KMA008 is ammonium bifluoride which can be used to prepare most sandstone acidizing systems at various applicable well conditions.

Instead of preparing HF from concentrated acids, HF precursor can be used to prepare hydrofluoric acids to avoid hazardous handling situations. In addition, the kinetics of forming HF from reactions between protons and KMA008 is controllable by using weak acids such as organic acids.

KMA008 is compatible with most additives and acid systems for sandstone acidizing. The mixing or preparation procedures are described in individual acid system manual.

4. Treatment

1-5% weight is typically enough for most acid system design. 2% weight is considered the optimum concentration in most fluid systems.

5. Packaging

KMA008 is supplied in plastic-lining bags with net weight of 25 kg/bag. It should be stored in shaded areas with good ventilation. Keep it away from high temperature, humidity and direct sunlight.