

Calcium Chloride

Calcium Chloride is a ready-to-use white powder. It is non-toxic, odorless, extremely hygroscopic, and easily soluble in water to form a slightly acidic solution. It can be used to achieve rapid density increase with minimum volume addition. It also provides inhibition, preventing the hydration and migration of swelling clays and can be used in packer fluids. Calcium Chloride is available in anhydrous (CaCl_2) and dihydrate ($\text{CaCl}_2 \cdot 2\text{H}_2\text{O}$) in forms of prills, powder, granule or flakes.

Typical Physical Properties

Appearance	Crystalline Powder
Assay (%)	94.0 min
Chloride (%)	3.0 max
Impurity (%)	1.0 max
Water (%)	0.5 max
Mesh	40 - 80

Application

Calcium Chloride can be used to form brines with density of 1398 kg/m^3 (11.67 lb/gal). In addition, solid Calcium Chloride can be added to lower-density mixed brine solutions to increase the density of the brine. It can also be used in oil drilling, drilling fluid, completion fluid as well as a petrochemical dehydrating agent.