

SODA ASH

Dense

SODIUM CARBONATE

Sodium Carbonate anhydrous commonly known as **Soda Ash**, is a chemical compound used widely in the drilling industry as a water based mud conditioner and contaminant treatment additive.

Soda Ash is used to precipitate calcium in make up water, which softens the water and elevates the water's pH level prior to mixing mud additives. This is desirable since bentonite and some polymers provide better yield in soft, slightly alkaline water.

PHYSICAL PROPERTIES:

Appearance: White granular crystal

Specific Gravity: 2.533 gm/cm³

Bulk Density: 930 kg/m³ (min)

CHEMICAL PROPERTIES:

Solubility: 18% by weight of water @ 21°C

PARTICLE SIZE DISTRIBUTION

Mesh Size	#20	#30	#40	#100	#140	#200	Pan
Microns	850	600	425	150	106	75	↓75
% Retained	0.5 max	3.0 max	30.0 max	85.0 min	93.0 min	98.0 min	2.0 max



MIXING & HANDLING

Soda Ash is only partially soluble in water so prehydrating or attempting to dissolve it in water and then add it to a system will result in minimal benefit. **Soda Ash** is best added dry either through a mixing hopper or mechanically dispersed (sprinkled) over the top of the fluid surface or added at a point of agitation.

In make up water or to treat contamination from cement, anhydrite or to treat out Ca+ from floc water the following guideline is used if hardness can be measured.

350 mg/L calcium ions requires 1.0 kg/m³ of **Soda Ash**.

If total hardness or calcium can not be measured at the time of treatment or if blindly pretreating make up water for premixing add **Soda Ash** in 0.5 kg/m³ increments until pH is 8.5 - 9.0. Do not exceed 3 kg/m³ without being able to physically determine the effectiveness of the addition either through chemical tests or general analysis of the mud.

Over-treatment with **Soda Ash** can result in carbonate alkalinity and consequent excessive gel strengths and problems due to increased fluid loss.

WHMIS: Not controlled

TDG: Not regulated

Packaging: 25 or 40kg bag - 50kg pail