

Soda Ash

Alkalinity Source

Description

SODA ASH is the common name for sodium carbonate (Na_2CO_3). It is a weak base which is soluble in water and dissociates into sodium (Na) and carbonate (CO_3) ions in solution.

Applications/functions

- Precipitates free calcium cations in water based systems
 - Provides supplemental alkalinity, can be used as a pH buffer in clear water solutions
 - Flocculates bentonite
 - Can be used to increase the density of workover and completion fluids to 1.2 g/cm³
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Advantages

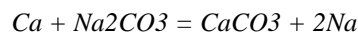
- Widely available and an economic source of carbonate ions to precipitate free calcium while increasing pH
 - Concentrated chemical, effectively removes calcium in most drilling fluids at small treatment levels
 - Effective flocculant for spud muds
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Typical properties

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| • Appearance | white powder |
| • Specific gravity | 2.51 (minimum) |
| • pH (1% solution) | 11.4 |
| • Solubility at 35°C | 49.7 % by weight |
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Recommended treatment

- The calcium precipitation chemical reaction is as follows:



To treat calcium out of makeup water, multiply its total hardness (mg/l) by 0.00257 to find the kg/m³ of soda ash to add.

- In pure water, SODA ASH forms highly buffered solutions which range between a pH of 10.9 to 11.6 at concentrations of 0.6 to 86 kg/m³.
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Package

Soda Ash is packaged in 25 kg sacks.
