

# SODIUM SULPHATE

## IMPROVED CEMENT BONDING

Sodium Sulphate (Anhydrous  $\text{Na}_2\text{SO}_4$ ) is commonly referred to as salt cake.

Sodium Sulphate reacts with cement hydration products such as calcium hydroxide to form calcium sulphate. The calcium sulphate reacts with aluminates having an expansive effect on cement. Improved cement bonding is one of the benefits of using sodium sulphate in cement slurries. Typical treating rates range up to 10% by weight of cement.

## PHYSICAL PROPERTIES:

Appearance: White crystals  
 Specific Gravity: 2.7 gm/cm<sup>3</sup>  
 Bulk Density: 1285-1445 kg/m<sup>3</sup>  
 Melting Point: 884°C

## CHEMICAL PROPERTIES:

Solubility: 15.9% at 20°  
 pH: 8.3 (1% solution)  
 Sodium Sulphate: 99.1%  
 Calcium Sulphate: 0.14%  
 Magnesium Sulphate: 0.50%  
 Sodium Carbonate: 0.01%  
 Sodium Chloride: 0.20%  
 Sodium Bicarbonate: 0.03%  
 Water Insolubles: 0.02%

## PARTICLE SIZE DISTRIBUTION

Mesh Size	#20	#35	#60	#100	#200	#400	Pan
Microns	850	500	250	150	75	38	0
% Retained	0	12.2	30.9	28.7	18.7	5.5	4.0

## MIXING & HANDLING

Use good industrial hygiene practice and wear goggles and a dust mask to minimize irritation from dust. Avoid contact with aluminum, magnesium or strong acids.

WHMIS: Not controlled

TDG: Not regulated

Packaging: 50 lb bag

