

• S P E C I F I C A T I O N S •

SODIUM BICARBONATE, INDUSTRIAL GRADE

Assay – dry basis	Not less than 99.0% nor more than 100.5% of NaHCO₃
General Properties (Not specifications)	
Empirical Formula	NaHCO ₃
CAS Number	144-55-8
Other Names	Bicarbonate of Soda Sodium Acid Carbonate Baking Soda
Chemical Abstract Name	Carbonic acid monosodium salt
Appearance	White crystalline powder
Taste	Slightly alkaline
Molecular Weight	84.01
Thermal Decomposition	Decomposes without melting into Na ₂ CO ₃ , H ₂ O and CO ₂ . See Figure 1.
Bulk Density	61 lb / ft ³ , 0.977 g / cc
Crystal Density	137.3 lb /ft ³ , 2.2 g / cc
BTU / lb at 72°F	0.249
Solubility in water	See Figure 2.
Solubility in Alcohol	Insoluble
Specific Gravity of Aqueous Solutions	See Figure 3.
Alkali Equivalent	1 lb NaHCO ₃ = 0.369 lb Na ₂ O
Acid Equivalent	1 lb NaHCO ₃ = 0.435 lb HCl
Carbon Dioxide Equivalent	1 lb NaHCO ₃ = 0.524 lb CO ₂
pH 1% aqueous soln at 77°F	Approximately 8.3. See Figure 4.



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FIGURE 1 THERMAL DECOMPOSITION

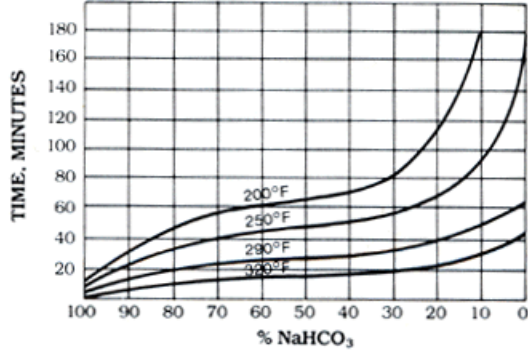


FIGURE 2 SOLUBILITY IN WATER

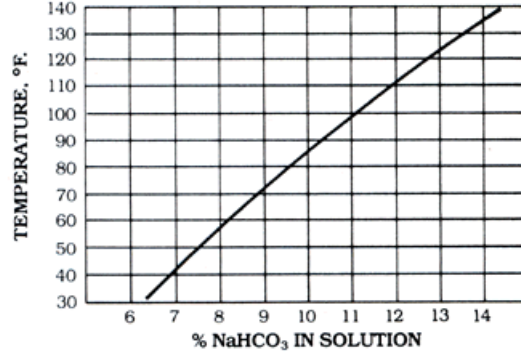


FIGURE 3 SPECIFIC GRAVITY OF AQUEOUS SOLUTIONS

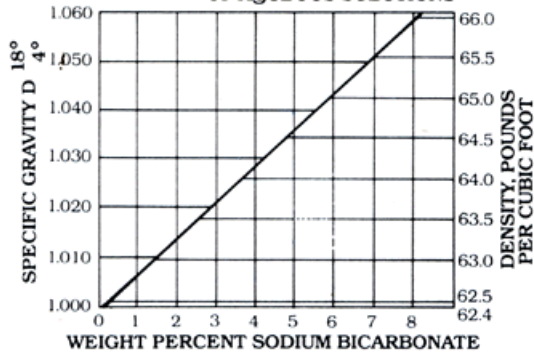


FIGURE 4 pH

