

SODIUM BICARBONATE

PRODUCT IDENTIFICATION

CAS NO. 144-55-8
EINECS NO. 205-633-8
FORMULA NaHCO_3
MOL WT. 84.01



H.S. CODE 2836.30

TOXICITY Oral rat LD50: 4220 mg/kg

SYNONYMS Baking soda; Sodium acid carbonate;

Sodium Hydrogen Carbonate; Carbonic acid monosodium salt; carbonic acid sodium salt (1:1); monosodium hydrogen carbonate; monosodium carbonate; meylon; Bicarbonate of soda;

RAW MATERIALS

CLASSIFICATION

GENERAL DESCRIPTION

Sodium Bicarbonate, commonly called baking soda, is a white odourless, crystalline solid, completely soluble in water but slightly soluble in ethanol. It is the mildest of all sodium alkalis. It is prepared from purified sodium carbonate or sodium hydroxide solution with passing carbon dioxide which is bubbled into the solution of pure carbonate, and the bicarbonate precipitates out to be dried as the bicarbonate is less soluble than the carbonate. Sodium bicarbonate is also made as an intermediate product in the Solvay process which is to make sodium carbonate from calcium carbonate by treating sodium chloride with ammonia and carbon dioxide. The major use of sodium bicarbonate is in baking powders. Sodium Bicarbonate plays an important role in the products of many diverse industries with functions of releasing CO_2 when heated above about 50 C or when reacted with a weak acid makes sodium bicarbonate a key ingredient in food leavening as well as in the manufacture of effervescent salts and beverages. It can react as an acid or a base in water treatment. In health and beauty applications, mild abrasivity and ability to reduce odors chemically by neutralizing the acid by-products of bacteria are utilized. It is also used in treating wool and silk, fire extinguishers, pharmacy, leather, oredressing, metallurgy, in cleaning preparations and industrial & chemical processe.

PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE White crystalline powder or lumps
MELTING POINT 60 C (Decomposes)
BOLING POINT
SPECIFIC GRAVITY 2.159
SOLUBILITY IN WATER soluble
pH 8.3 (0.1 mol)
VAPOR DENSITY
AUTOIGNITION
NFPA RATINGS Health: 1; Flammability: 0; Reactivity: 0
REFRACTIVE INDEX
FLASH POINT Not considered to be a fire hazard
STABILITY Stable under ordinary conditions

APPLICATIONS

food & food processing, beverages , pharmaceuticals , animal foodstuffs , household cleaning products , rubber & plastics foam blowing , fire extinguishers & explosion suppression , effluent & water treatment, flue gas treatment , oil drilling , industrial & chemical processes

SALES SPECIFICATION

APPEARANCE clear powder

NaHCO ₃	99.0% min
INSOLUBLES IN WATER	0.01% max
NaCl	0.02% max
Na ₂ SO ₄	0.04% max
Fe ₂ O ₃	0.001% max
Na ₂ CO ₃	1.05% max
Pb	5ppm max
MESH SCREEN SIZE	70% min (+325)
TRANSPORTATION	
PACKING	25kgs, 50kgs in bag
HAZARD CLASS	Not regulated
UN NO.	
OTHER INFORMATION	