

SODIUM CARBONATE

PRODUCT IDENTIFICATION

CAS NO. 497-19-8

EINECS NO. 207-838-8

FORMULA Na_2CO_3

MOL WT. 105.99

H.S. CODE 2836.20

TOXICITY Oral rat LD50: 4090 mg/kg

SYNONYMS Carbonic acid, disodium salt; disodium carbonate;

Carbonic acid, disodium salt; Crystol carbonate; Bisodium carbonate; Carbonic acid sodium salt; Disodium carbonate; Na-X; Soda; Soda ash; Sodium carbonate (2:1); Soda Ash;

DERIVATION sodium chloride with ammonia and carbon dioxide or Trona

CLASSIFICATION

GENERAL DESCRIPTION

Sodium Carbonate is a white, crystalline compound soluble in water (absorbing moisture from the air) but insoluble in alcohol. It forms a strongly alkaline water solution. Soda ash is the industrial name of anhydrous sodium carbonate. Sodium carbonate decahydrate, a colorless, transparent crystalline compound, is commercially called sal soda or washing soda. Soda Ash is produced synthetically using the Ammonia Soda process (Solvay process) treating sodium chloride with ammonia and carbon dioxide. Trona, a naturally occurring mineral, is used also as a source of sodium carbonate. It is an essential ingredient in many industrial and manufacturing processes. It has a wide range of industrial uses, being crucial in the manufacture of flat and container glass and a key ingredient in the production of detergents. It is also used in water purification, polymer production, tanning, aerospace alloys, paper manufacturing process, effluent neutralisation, metal refining, sugar extraction and cement manufacture.

PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE White powder or granules

MELTING POINT 851 C (Decomposes)

BOILING POINT

SPECIFIC GRAVITY 2.53

SOLUBILITY IN WATER 45.5 g/100 ml

pH 11.6 Aqueous solution

VAPOR DENSITY

AUTOIGNITION

NFPA RATINGS Health:1 Flammability: 0 Reactivity:1

REFRACTIVE INDEX

FLASH POINT Not considered to be a fire hazard

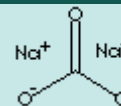
STABILITY Stable under ordinary conditions

APPLICATIONS

glass, effluent neutralisation, metal refining, detergents, chemical manufacture, water purification, polymer production, tanning, sugar, extraction, cement manufacturing

SALES SPECIFICATION

DENSE



APPEARANCE	white odorless, granular
TOTAL BASE CONTENT	99.2% min (as Na ₂ CO ₃ on Dry Base)
SODIUM OXIDE	58.1% min (as Na ₂ O on Dry Base)
SODIUM CHLORIDE	0.05% max (as NaCl on Dry Base)
SODIUM SULFATE	0.15% max (as Na ₂ SO ₄ on Dry Base)
INSOLUBLES IN WATER	0.1% max
BULK DENSITY	800 - 1100kg/m ³
SIEVE ANALYSIS	< 0.065mm :2.0% max < 0.125 mm: 5.0% max < 0.25 mm: 60.0% max < 0.5 mm: 60.0% min < 1.0 mm: 95.0% min
LIGHT	
APPEARANCE	white odorless, granular
TOTAL BASE CONTENT	99.2% min (as Na ₂ CO ₃ on Dry Base)
SODIUM OXIDE	58.1% min (as Na ₂ O on Dry Base)
SODIUM CHLORIDE	0.05% max (as NaCl on Dry Base)
SODIUM SULFATE	0.15% max (as Na ₂ SO ₄ on Dry Base)
INSOLUBLES IN WATER	0.1% max
BULK DENSITY	400-700 kg/m ³
SIEVE ANALYSIS	0.125 - 0.250 mm : 20 - 35% 0.065 - 0.125 mm : 20 - 30% < 0.065 mm : 20 - 35%
TRANSPORTATION	
PACKING	Light : 25kgs, 500kgs, Dense : 50kgs, 1mt in Bag
HAZARD CLASS	Not regulated
UN NO.	