



>>Entry Name: Sodium chloride (NaCl), 8CI, JAN, USAN

Synonym(s): Rock salt. Salt. Halite. Ayr. Hypersal. Brine. Natritope chloride

CAS Registry Number: 7647-14-5

Related CAS Registry Numbers(s): 17112-21-9

Extra CAS Registry Numbers(s): 14762-51-7

NaCl

Molecular Formula: ClNa

Molecular Weight: 58.442

Accurate Mass: 57.958619

Percentage Composition: Cl 60.66%; Na 39.34%

Source/Synthesis: Mineral. Manufactured from salt deposits by conventional extraction methods

Use/Importance: Commercially available. Pharmaceutic aid (tonicity agent). Tablet and capsule diluent. Used in fluxes, electroplating and as a food additive. Raw material for the production of many commercially significant sodium salts. Also used in the preparation of sodium metal

Physical Description: Colourless cubic cryst., hygroscopic

Melting Point: Mp 801°

Boiling Point: Bp 1413°

Solubility: V. sol H₂O (36 g per 100 cm³ at 0°; 39 g per 100 cm³ at 100°); spar. sol. EtOH

Other Data: ²²Na labelled compd. used as radioactive agent (Sodium chloride Na 22, USAN). Component of Lytears. $\Delta H_f^\circ -411.1 \text{ kJ mol}^{-1}$; $\Delta G_f^\circ -384.0 \text{ kJ mol}^{-1}$; $S^\circ 72.1 \text{ J K}^{-1} \text{ mol}^{-1}$

Hazard & Toxicity: Adverse therapeutic effects include hypertension, oedema, and gastrointestinal disturbances. Excessive administration can lead to hypernatraemia with resultant dehydration of internal organs

Aldrich: 31879-5

Fluka: 24889

Sigma: W3504

References:

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