

Catalog Number: 102892, 152575, 194738, 194848

Sodium chloride

Structure:**Molecular Formula:** NaCl**Molecular Weight:** 58.44**CAS #** 7647-14-5**Synonyms:** Common salt; Table salt; Rock salt**Physical Description:** White crystalline powder**Description:** Sodium chloride is a commonly used chemical which is found widely in nature. It is considered to be an essential nutrient. Excess amounts of sodium chloride can destroy electrolyte balance and cause death in most animals, including humans.

Sodium chloride is used in a wide variety of biochemical applications, including intravenous fluids (normal saline is 0.9% w/v in water¹⁰), density gradients^{3,6}, a diluent to increase ionic strength in buffers or culture media and in salt-out procedures in the isolation of DNA.⁸ It has also been used in high concentrations for preservation of foods since bacteria cannot grow in high salt conditions. A salt-ice mixture in the ratio of approximately 33 g sodium chloride to 100 g ice (at -1°C) will drop in temperature to as low as -21°C, depending on the rate of stirring and the size of the ice chunks.²

Availability:

Catalog Number	Description	Size
194738	Sodium Chloride, cell culture reagent	500 g 1 kg 5 kg 10 kg
152575	Sodium Chloride, ACS Reagent Grade	500 g 1 kg 5 kg 10 kg
194848	Sodium Chloride, molecular biology reagent	500 g 1 kg 5 kg 10 kg
102892	Sodium Chloride, USP Grade	500 g 1 kg 5 kg 10 kg

Solubility: Soluble in water (357 mg/ml @ 25°C; 384 mg/ml @ 100°C), glycerol (100 mg/ml); very slightly soluble in ethanol. Solubility in water is decreased by HCl; almost insoluble in concentrated HCl.¹ Aqueous solutions are at a neutral pH (6.7 - 7.3).¹ Density of a saturated solution at 25°C is 1.202.¹ A 23% aqueous solution freezes at -20.5°C.¹ Aqueous solutions of sodium chloride are stable at room temperature and can be sterilized by autoclaving or sterile filtering.

References:

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