



Sodium Gluconate

Sodium gluconate belongs to the salts of gluconic acid. Beside its buffering properties, it is used as a chelating agent in various cosmetic products due to its excellent complexing ability, especially in alkaline media. Being fully biodegradable and non-toxic, it represents an environment friendly alternative to the common chelating agents used in cosmetics such as EDTA.

Presentation

Sodium gluconate is the sodium salt of gluconic acid and is well known for its buffering capacity and chelating ability. It can form stable complexes with iron, copper, calcium, magnesium, aluminium, zinc and other heavy metals. As its chemical structure does not include any nitrogen or phosphorus atom, it does not contribute to the eutrophication issue commonly associated to classical chelating agents.

Production

Sodium gluconate is produced by fermentation of glucose syrup which is derived from maize. After a crystallisation step, sodium gluconate is separated from the mother liquor by centrifugation, the crystals are dried and then sieved to guarantee the desired granulation.

Characteristics

Sodium gluconate is a white to tan, granular to fine, practically odourless crystalline powder. It is very soluble in water, sparingly soluble in alcohol and insoluble in ether.

INCI name

Sodium Gluconate

INCI functions

Chelating, skin conditioning

Applications

Colour cosmetics, hair care, oral care, skin care, soap and bath products

Functions and typical dosage

	Minimum recommended amount	Maximum recommended amount
■ Chelating	0.2%	0.6%
■ Buffering	0.1%	1.0%



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Formulation examples

- [Caring soap bar](#)
- [Natural skin cream](#)
- [After sun lotion](#)
- [Mouthwash](#)
- [After shave balsam MEN](#)
- [Body lotion MEN](#)
- [Natural sunscreen SPF 30*](#)
- [Efficient sunscreen SPF 30*](#)
- [Sunscreen with light skin feel SPF 25*](#)
- [BB cream SPF 20*](#)
- [BB cream light SPF 50+*](#)
- [Sun care formulation SPF 50+*](#)