

# **QUERATAN SP**

**CHEMICAL NAME:** Keratin hydrolyzed protein

| INCI name <sup>(1)</sup> | CAS number <sup>(1)</sup> | EINECS number <sup>(1)</sup> |
|--------------------------|---------------------------|------------------------------|
| Hydrolyzed Keratin       | 69430-36-0                | 274-001-1                    |
| Aqua                     | 7732-18-5                 | 231-791-2                    |
| Tetrasodium EDTA         | 64-02-8                   | 200-573-9                    |
| Sodium Benzoate          | 532-32-1                  | 208-534-8                    |
| Potassium Sorbate        | 590-00-1 / 24634-61-5     | - / 246-376-1                |

(1) Reference: (<http://ec.europa.eu/consumers/cosmetics/cosing/index.cfm?fuseaction=search.simple>), CosIng, Europa.

| INCI name <sup>(2)</sup> | CAS number <sup>(2)</sup> | EINECS number <sup>(2)</sup> |
|--------------------------|---------------------------|------------------------------|
| Hydrolyzed Keratin       | 69430-36-0                | 274-001-1                    |
| Water                    | 7732-18-5                 | 231-791-2                    |
| Tetrasodium EDTA         | 64-02-8                   | 200-573-9                    |
| Sodium Benzoate          | 532-32-1                  | 208-534-8                    |
| Potassium Sorbate        | 590-00-1 / 24634-61-5     | - / 246-376-1                |

(2) Reference: Personal Care Products Council. Available at: <https://incipedia.personalcarecouncil.org/winci/ingredient-custom-search/>, USA.

## **INTRODUCTION**

Keratin is an insoluble fibrous protein, of high molecular weight. Keratin is composed of a sequence of 18 amino acids interlinked by hydrogen, salted and disulphide bridges.

Keratin is the major constituent of hair and nails, and its physicochemical characteristics are responsible for tissue properties.

## **SPECIFICATION**

|                         |  |
|-------------------------|--|
| Appearance (25°C)       | : Liquid limpid to opalescent          |
| Color                   | : Yellow to amber                      |
| Odor                    | : Characteristic of hydrolyzed protein |
| pH 100% (25°C)          | : 3.0 – 5.0                            |
| Density (25°C)          | : 1.070 – 1.130 g/ml                   |
| Refractive Index (25°C) | : 1.3350 – 1.3950                      |
| Dry Residue (105°C, 4h) | : 15.0 – 30.0 %                        |
| Moulds                  | : Max. 100 CFU/g                       |
| Bacteria                | : Max. 100 CFU/g                       |

## **OTHER AVAILABLE DATA**

|                |   |
|----------------|---|
| Ash (800°C)    | : Max 6.0%  |
| Total nitrogen | : 1.8% + - 0.4%   |
| Protein        | : Factor 6.25 x nitrogen  |
| Solubility     | : Soluble in water, propylene glycol, glycerin, alcohol (Up to 50%) |
| Identification | : Spectroscopy UV – according to standard                           |

## PROPERTIES AND APPLICATION

**QUERATAN SP** is a hydrolyzed keratin solution of low molecular weight. A careful hydrolysis process results in amino acids and small peptides.

The ability in penetrating hair cuticle is due to their low molecular weight. **QUERATAN SP** restores, hydrates, and imparts gloss and softness to damaged hair.

**QUERATAN SP** is water soluble and is easily incorporated in hair and nail care formulations.

**QUERATAN SP** is specially indicated in formulations for hair and nails treatment. Hair and nail appearance and vitality depend on the integrity, moistness and electric charge distribution located along the keratinized fibers. Preparations containing **QUERATAN SP** will help restoring regions where peptide chain has been damaged by aggressive agents.

Conditioning effect is attributed to the re-equilibrium of water content, distribution of electric charge and to a balanced pH.

## SUGGESTED DOSAGE

- |                                  |           |
|----------------------------------|-----------|
| • Shampoos                       | 0.5 to 3% |
| • Conditioners and hair restorer | 1 to 5%   |
| • Hair straighteners             | 1 to 5%   |
| • Nail care formulations         | 1 to 5%   |

## STORAGE

Store dry, tightly closed and protected from light and heat (under 35°C).

**NOTE:** during storage it may get turbid and/or precipitation may occur, but this will not invalidate the item. product for topical cosmetic formulations.

## SHELF LIFE

Twenty-four (24) months from manufacturing date.

## REFERENCES

1. *CosIng*, Europe (<http://ec.europa.eu/consumers/cosmetics/cosing/index.cfm?fuseaction=search.simple>)
2. Personal Care Products Council; *Online International Cosmetic Ingredient Dictionary & Handbook (wINCI)*; Copyright© 2008 Personal Care Products Council. Available at: <https://incipedia.personalcarecouncil.org/winci/ingredient-custom-search/>, USA.. Accessed in: Nov. 29, 2022.