

ALPHA-ARBUTIN

Superior skin lightening enhancer for a perfect skin tone

CHARACTERISTICS

Introduction

ALPHA-ARBUTIN is a skin lightening enhancer for a perfect even skin tone. It reduces the degree of skin tanning after UV exposure and helps to minimize the appearance of liver spots.

ALPHA-ARBUTIN is a highly pure, very efficient tyrosinase inhibitor.

Composition

INCI name	Content	CAS No.	EINECS/ELINCS	Chemical name
Alpha-Arbutin	≥97%	84380-01-8	440-470-8	4-Hydroxyphenyl- α-D- glucopyranoside

General Properties

- Appearance: Crystalline powder, White to off-white
- Alpha-Arbutin content: ≥97%

FORMULATING

Solubility

- ALPHA-ARBUTIN is soluble in water: 151 g/L at 25°C.
- ALPHA-ARBUTIN is also soluble in ethanol, propylene glycol and glycerin

Incorporation

- ALPHA-ARBUTIN can be easily dissolved in the aqueous phase. When producing an emulsion with hot-hot process, it is recommended to add it after the emulsification process below 40°C - to avoid unnecessary heating of the active.

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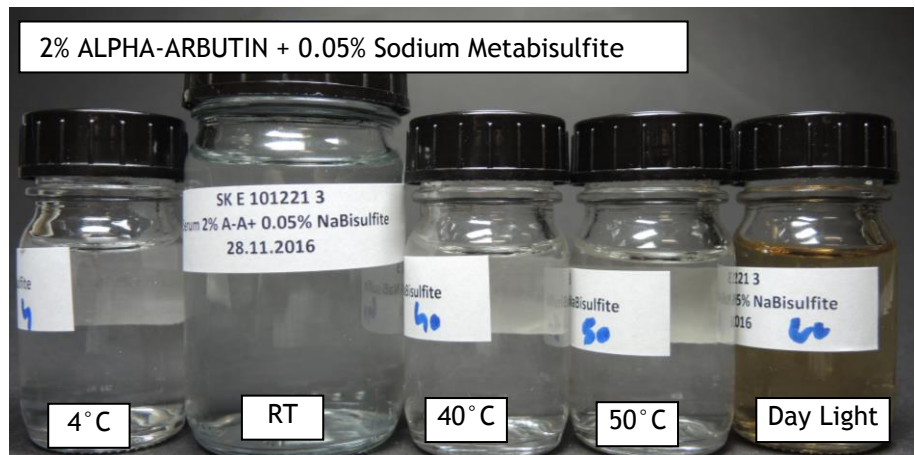
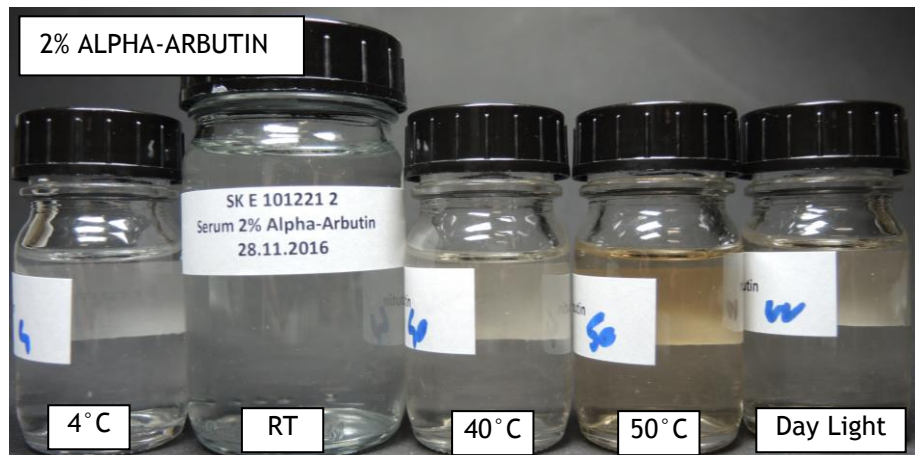
Compatibilities

- In general ALPHA-ARBUTIN shows a very good compatibility with all groups of raw materials like emulsifier systems, emollients and waxes, preservatives, hydrocolloids, sunscreens, detergents and other commonly used substances.
- Recommended pH of the final formulation: 3.5 - 6.5
- Compatible with up to 50% ethanol (max. concentration tested)
- Addition of Sodium Metabisulfite up to 0.05% is recommended to prevent discoloration of the formulation. Mainly in transparent serum containing up to 2% ALPHA-ARBUTIN.

Indeed, 3 months stability tests performed on a transparent serum containing 2% ALPHA-ARBUTIN have shown that it is possible to get a stable transparent serum by adding 0.05% Sodium Metabisulfite. The use of an opaque packaging to protect from light is recommended as well.

Pictures after 3 months of storage at different conditions:

4°C, RT, 40°C, 50°C and Day Light

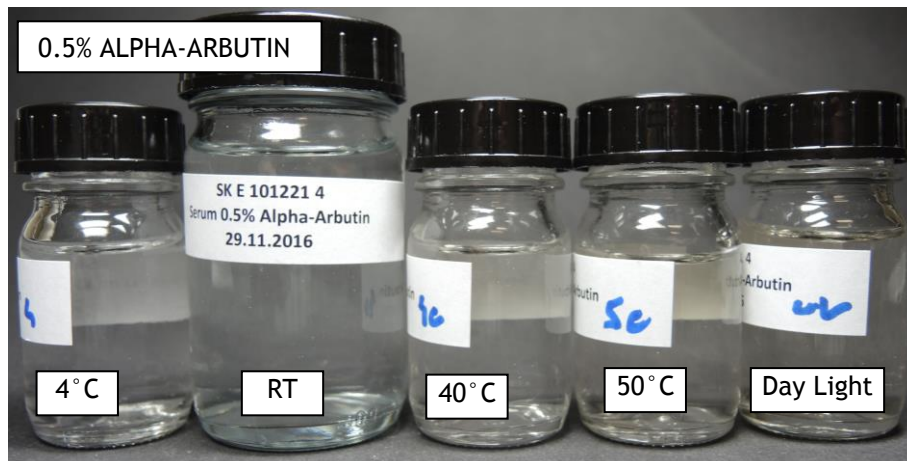


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Remark: The same test performed on a serum containing 0.5% ALPHA-ARBUTIN has shown that it is not necessary to add Sodium Metabisulfite when this lower concentration is used. No coloration was observed after 3 months stability tests.

Picture after 3 months of storage at different conditions:

4 °C, RT, 40 °C, 50 °C and Day Light



- Nevertheless, the compatibility always depends on the complete final formulation. So the formulator has to monitor potential incompatibilities during the time of storage with each formulation.

VARIOUS

Storage

ALPHA-ARBUTIN may be stored for at least 36 months from the date of manufacture in the unopened original container protected from light and humidity and at a temperature between 15 and 25 °C. The 'Best use before' date is printed on the label. Keep package tightly closed. Once opened, use contents quickly. In order to avoid secondary microbial contamination, following opening, containers should be handled with special care.

Use Level

Recommended use level is up to 2% in face applications, up to 0.5% in body applications.

Patent Information

DSM Nutritional Products Ltd. owns patents encompassing this product.

Last updated: June 2017

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