

Product Information

Personal Care

BC 2426 Cetyl Dimethicone Copolyol

INCI name: Cetyl PEG/PPG-10/1 Dimethicone

Description

Basildon Chemicals BC 2426 is a liquid polysiloxane polyalkyl polyether block copolymer designed for use as a silicone emulsifier for W/O emulsions. The chemical structure of BC 2426 allows the incorporation of ingredients that would normally have a destabilising effect on the emulsion.

Product Features

1. W/O emulsifier for creams, lotions and other personal care products
2. Co-emulsifier for O/W emulsions
3. Enables cold process manufacturing
4. Emulsifier for multiple emulsions (W/O/W)

Typical Properties

These values are not intended for use in preparing specifications (see table).

Method of Use

BC 2426 Dimethicone Copolyol can be used in a wide range of personal care formulations. The amount required depends on the specific application. It can be diluted with cool water and lower alcohols.

Applications

Depending on the viscosity of the oil phase and the water content of the formulation, both viscous and creamy W/O emulsions can be produced by a cold mix process with the aid of BC 2426.

It also aids the emulsification of paraffin and silicone fluids, as well as fatty acid esters and vegetable triglycerides (some of which are difficult to emulsify). See page 2 for details.

Toxicity and Handling

BC 2426 Dimethicone Copolyol is basically non-hazardous with a very low order of toxicity, although contact with the skin or with the eyes may cause irritation. See our material safety data sheet for more information.

Storage and Shelf Life

Store in cool and dry conditions. When stored at below 32°C the product has a shelf life of 12 months from the date of manufacture. The product may solidify when subjected to temperatures below 20°C. It can be easily melted by gentle warming. This will not effect the performance of the product.

Technical Service

Our technical and sales staff have considerable experience of the use of silicone products in a very wide variety of industries and the benefit of this experience is freely available to all our customers.

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Typical Properties

Specific gravity (25°C)	0.98
Appearance:	Clear to hazy, colourless to straw liquid
Viscosity:	400-2000cS
CTFA/INCI designation:	Cetyl PEG/PPG-10/1 Dimethicone

Although every effort has been made to ensure that the information contained in this data sheet is reliable, we cannot be held responsible for the correctness of the information or for any loss, injury or damage which may result from its use. Also suggestions of uses should not be taken as inducements to infringe any particular patent.

Application Properties of BC 2426

BC 2426 is a dimethicone copolyol, designed to act as a non-ionic W/O emulsifier with a high emulsion stabilisation potential. Its main area of application is in the production of cosmetic emulsions of the W/O & W/O/W type.

The following data should give a good idea of the potential benefits that can be gained by the use of BC 2426 in skin preparations.

- ❑ BC 2426 is generally used at a level between 1.5% & 2.5% in low water content cosmetic emulsions.
- ❑ When using BC 2426 in this type of formulation, emulsion stabilising waxes are generally not required.
- ❑ When using BC 2426, the optimum oil phase content of the cream will be 25% to 35%.
- ❑ BC 2426 enables the simple inclusion of many ingredients which are normally difficult to emulsify in skin care formulations. These include; fatty acids of short & long chain alcohols, silicones and vegetable triglycerides.
- ❑ Using BC 2426 allows the incorporation of various actives in the formulation. Products such as UV filters, Plant Extracts, Moisturising Agents & Antiperspirants are included with greater ease.
- ❑ Using BC 2426 produces emulsions which are more tolerant to high and low temperature.
- ❑ BC 2426 improves speed at which creams with good 'rub-out' & spreading properties are absorbed into the skin. In 'heavy' creams it helps improve the feel and application properties.
- ❑ With BC 2426 in the formulation, it is possible to make creams with lower oil contents than a lotion.
- ❑ Using BC 2426 in the formulation enables a fine particle size, highly stable emulsion to be formed. The attainment of a fine particle size, not only improves long-term stability of the product, but also helps maintain viscosity.

The distinguishing characteristics of a skin cream produced with BC 2426 are a smooth, bright, easily applied product with good skin feel.