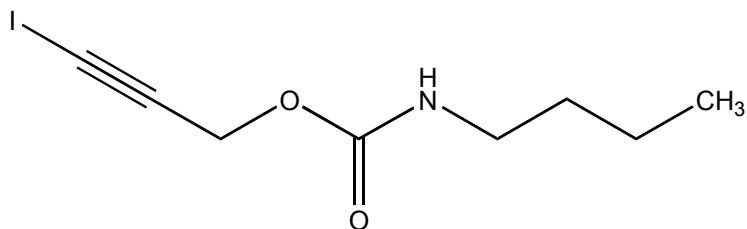


NEW FOR 2006

Maguard™ I-10L



10% Iodopropynyl Butylcarbamate (IPBC) in Glycereth 2-Cocoate Preservative for Personal Care Products

Overview

MAGUARD I-10L is characterized as an easy to use liquid of 10% active 3-Iodo-2-Propynyl Butyl Carbamate (IPBC) in Glycereth-2 Cocoate. MAGUARD I-10L is a versatile and cost effective preservative that provides a high level of antifungal activity. It is remarkably effective in inhibiting the growth of yeasts and molds. Functional at low concentration, I-10L is fully compatible with surfactants, emulsifiers and proteins, and is stable over wide pH and temperature ranges.

IPBC preservatives have a strong safety history based on comprehensive toxicology results and significant use experience. Toxicology studies performed over the years rate IPBC as one of the safest preservatives available today. IPBC has been tested extensively to meet personal care regulatory standards in the key global regions.

Soluble in water based surfactants and oil phase ingredients in emulsions, use MAGUARD I-10L to preserve **Shampoos, Conditioners, Personal Scrubbing and Cleansing Wipes, Creams and Lotions, Sun Screens, Makeup and Powders** with confidence.

INCI Name:

**Iodopropynyl Butylcarbamate, CAS#: 55406-53-6; EINECS#: 259-627-5
Glycereth-2 Cocoate, CAS# 68201-46-7**

Typical Properties

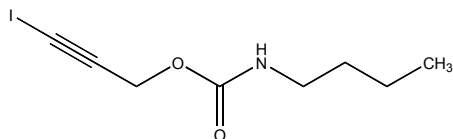
Physical form Light amber, Liquid
Actives content >10 wt%
Solubility Soluble in Polar Organic Solvents
Storage Store between 0°C(32°F) and 32°C(90°F)

Handling Information

Refer to the Material Safety Data Sheet (MSDS) available from Mason Chemical Company for information on the safe use, handling and disposal of this product.

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Maguard™ I-10L



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EFFICACY DATA – MINIMUM INHIBITORY CONCENTRATION

Minimum Inhibitory Concentration (MIC)/ppm active		Microorganism
Maguard I-10L	Typical Paraben mix	
5	≥ 130	Saccharomyces cerevisiae
10	≥ 200	Aspergillus niger
39	≥ 130	Candida albicans
≤ 50	≥ 130	Aureobasidium pullans
≤ 50	≥ 130	Penicillium fusiculosum
≤ 50	≥ 130	Most other fungal species
100	≥ 400	Escherichia coli
156	≥ 400	Staphylococcus aureus
625	≥ 625	Pseudomonas aeruginosa

EFFICACY DATA – PRESERVATIVE CHALLENGE TEST

Anionic Shampoo Sample w/addition of Preservative	Challenge Data – Colony Forming Units per Gram (cfu/g) Mixed Fungi (<i>A. niger</i> & <i>C. albicans</i>)				
	Day 0	Day 7	Day 14	Day 21	Day 28
0.025% Maguard I-10L (25ppm active)	1-3x10 ⁵	< 10	<10	< 10	< 10
0.015% Maguard I-10L (15ppm active)	1-3x10 ⁵	3x10 ²	<10	< 10	< 10
0.6% Typical Paraben mix (6,000ppm active)	1-3x10 ⁵	6x10 ³	4x10 ³	1x10 ⁴	2x10 ⁴

REGULATORY INFORMATION

North America

IPBC can be used up to 0.1% of the formulation in both rinse-off and leave-on products. There are no other restrictions or label phrase requirements. Besides the 0.1% dosage level, CIR also stated that IPBC should not be used in formulations intended to be aerosolized.

Europe & China

IPBC was moved from the “provisionally allowed preservatives” category to the “allowed preservatives” category in Annex VI, part 1 to Council Directive 76/768/EEC in early 2000 following the SCCNFP review and positive opinion 3. It can be used up to 0.05% of the formulation in both rinse-off and leave-on products. Additionally, between 0.02% and 0.05% in leave-on formulations, the product label must contain the phrase “contains iodine”. If under 0.02% IPBC, there are no label phrase requirements for leave-on products. IPBC cannot be used in oral hygiene or lip care products.

Japan

Currently, IPBC cannot be used in cosmetics though it can and has been used in household and industrial products for many years. Registration process for inclusion in the Japanese positive list of allowed preservatives is ongoing.

Refer to Material Safety Data Sheet for Handling and Safety Information and Toxicology Summary.