

NEW FOR 2006

Maguard™ H-55EX

Multifunctional, Cost-Effective Broad Spectrum Preservative for Personal Care Products - Paraben & Isothiazolinone Free -

Overview

MAGUARD™ H-55EX is characterized as a proprietary, Patent Pending blend of INCI listed ingredients. Containing one of the most cost-effective and safest broad spectrum preservatives in Maguard H-55 (DMDM Hydantoin) and Masurf FQ20, a fluoroaliphatic quaternary ammonium surfactant used as an antimicrobial enhancer, stabilizer, and hair and skin conditioning agent.

MAGUARD™ H-55EX is a cost-effective alternative Personal Care products preservative that provides a high level of antimicrobial activity, in an easy to handle liquid. Paraben and isothiazolinone free, it is remarkably effective in inhibiting the growth of bacteria, yeasts and molds. Functional at low concentration, **MAGUARD™ H-55EX** is fully compatible with surfactants, emulsifiers and proteins, and is stable over wide pH and temperature ranges.

MAGUARD™ H-55EX preservative is made up of INCI ingredients that have a strong safety history based on comprehensive toxicology results and significant use experience. Completely soluble in water and surfactant ingredients, use **MAGUARD™ H-55EX** to preserve **Shampoos, Conditioners, Personal Scrubbing and Cleansing Wipes, Creams and Lotions, Sun Screens, Makeup and Powders** with confidence.

INCI Name:

DMDM Hydantoin, CAS#: 6440-58-0, EINECS# 229-222-8

**C4-18 Perfluoroalkylethyl Thiohydroxypropyltrimonium Chloride,
CAS# 70983-60-7, ENECS# 275-091-5**

Typical Properties

Physical form Clear Liquid
Actives content..... 60 wt%
pH.....3.5 – 5.0
Storage Store between 0°C(32°F) and 32°C(90°F)

Typical Use Levels/pH Conditions Handling Information

0.1% - 0.6%

pH range in formulations, 3 -10

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.

Maguard and Masurf are Trademarks of Mason Chemical Company.

Maguard™ H-55EX

MAGUARD™ H-55EX is a cost-effective alternative Personal Care products preservative that provides a high level of antimicrobial activity, in an easy to handle liquid. Paraben and isothiazolinone free, it is remarkably effective in inhibiting the growth of bacteria, yeasts and molds. Used as a preservative in personal care products, **MAGUARD™ H-55EX** offers cost-efficacy advantages over common personal care preservatives as the tables below illustrate:

EFFICACY DATA – PRESERVATIVE CHALLENGE TEST

Cationic Conditioner Sample w/addition of Preservative	Challenge Data – Colony Forming Units per Gram (cfu/g)				
	Mixed Bacteria (<i>P. aeruginosa</i> , <i>E. coli</i> & <i>S. aureus</i>)				
	Day 0	Day 7	Day 14	Day 21	Day 28
0.10% MAGUARD H-55EX	1-3x10 ⁶	< 10	<10	< 10	< 10
1.0% Phenoxyethanol/Paraben blend	1-3x10 ⁶	6x10 ⁴	4x10 ⁴	1x10 ⁴	2x10 ⁴

Cationic Conditioner 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
0.10% MAGUARD H-55EX	1-3x10 ⁵	2x10 ²	<10	< 10	< 10
1.0% Phenoxyethanol/Paraben blend	1-3x10 ⁵	3x10 ³	2x10 ³	8x10 ²	6x10 ²

FEATURES/BENEFITS

Features

Benefits

Paraben Free	Alternative, Better Perception
Isothiazolinone Free	Alternative, Better Perception
Synergistic Efficacy	Cost Effectiveness, Broad Spectrum
Multifunctional	Hair and Skin Conditioning Agents, Preservation
Water White Liquid	Ease of Use, Manufacturing Ease
No Animal Testing	No Label Warnings

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