Lonza

Consumer Care

Zinc Omadine[™] Enhanced CP Dispersion for Personal Cleansing with Body Washes



Zinc Omadine[™] Enhanced CP Dispersion INCI Name: Zinc Pyrithione SAP Code #: 100670 (patented)

Key Product Attributes

- Targets odor causing bacteria on the skin
- Effective bactericidal and/or bacteriostatic active against specific bacteria linked to odor
- Allows for use in different rinse off personal cleansing applications

Efficacy Data

Minimum Inhibition Concentration (MICs)

Minimum inhibitory concentration (MIC) is an *in vitro* test to that determines the lowest concentration of an antimicrobial that will inhibit the visible growth of a microorganism after overnight incubation. Minimum inhibitory concentrations are important because they can confirm resistance of microorganisms to an antimicrobial agent and also to monitor the activity of new antimicrobial agents.⁴ A MIC is generally regarded as the most basic laboratory measurement of the activity of an antimicrobial agent against an organism and Lonza uses this as an initial screening for determining efficacy.⁵ MIC studies were performed to determine the efficacy of Lonza's Zinc Omadine[™] dispersion on numerous organisms that play a part in odor formation.

| | Zinc Omadine™ (Active, ppm) |
|-----------------|-----------------------------|
| S. epidermis | 15.6 |
| C. minutissimum | 7.81 |
| S. haemolyticus | 31.3 |
| C. xerosis | 3.91 |
| M. luteus | 15.6 |

Microbiological Challenge Studies

In vitro pig skin tests were performed following a proprietary method in order to determine the efficacy of the Lonza active Zinc Omadine[™] Enhanced CP Dispersion (ZPT coated with palm oil). This zinc pyrithione active was compared to other commonly used actives for odor control; comparatives were done on the neat actives and a body wash.

Study 1

This study shows how the actives performed when placed in a body wash formulation. The formulation is provided below.

| Ingredient | INCI Nomenclature | % |
|-----------------------|---|------------|
| Water | Water | q.s to 100 |
| Standapol WAQ-LC | Sodium Lauryl Sulfate | 3.00 |
| Steol | Sodium Lauryl Sulfate | 10.00 |
| CS 270 | Sodium Laureth Sulfate | 20.00 |
| Lauramide MEA | Lauramide MEA | 2.65 |
| Polyaldo® 6-2-S | Polyglyceryl-6 Distearate | 1.00 |
| Cetearyl Alcohol | Cetearyl Alcohol | 0.50 |
| Active | | 0.52 |
| Mikrokill® COS | Phenoxyethanol & Caprylyl Glycol & Chlorphenesin | 0.75 |
| Sodium Chloride | Sodium Chloride | 1.00 |
| Citric Acid 10 % | Citric Acid | q.s |
| Sodium Hydroxide 10 % | Sodium Hydroxide | q.s |

Comparison of Zinc Omadine[™] Enhanced CP Dispersion to Another Active for Odor Control in Body Wash



Conclusion

Results of the actives in a body wash after a 5 hour pig skin study show Zinc Omadine[™] Enhanced CP Dispersion had a long term bacteriostatic effect on the number of odor causing organisms, similar to other actives used for odor control.

Regulatory Note

A finished formulation sold in the United States that contains Zinc Omadine[™] Enhanced CP Dispersion cannot include any antimicrobial claims or reference the biocidal nature of the material against any particular organism. Zinc Omadine[™] Enhanced CP Dispersion can be used in rinse-off deodorant applications but cannot be used as an active ingredient to make antimicrobial claims, including when used in cosmetic grade Deodorant or Antibacterial Handwash/Soap applications. FDA has classified deodorants as cosmetics and Zinc Omadine is not listed in FDA's Tentative Monograph: OTC Healthcare Antiseptic Drug Products (which supports antimicrobial hand washes and soaps).

In the EU, odor control is a cosmetic application not a biocidal application (BPR). Zinc pyrithione is a listed preservative in EU Cosmetic Reg Annex V and allowed in rinse off products only. For products other than those for hair, it is permitted up to 0.5%. Lonza recommends an upper use level of 0.25% zinc pyrithione for whole body rinse off products.

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