

Oral Care Formulations

Protect Mouth Spray

Formula# M300-3011C Material# 874239

A long-lasting, fresh breath spray containing a film-forming polymer.

| Ingredients (Trade Name) | INCI Name | % w/w | Supplier |
|--------------------------------------|------------------|-----------|------------|
| Phase A | | | |
| Purified Water | Water/Aqua | QS to 100 | In-House |
| Glycerin | Glycerin | 8.000 | Solvo-Chem |
| Gantrez [™] S-97 BF Polymer | PVM/MA Copolymer | 0.500 | Ashland |
| Sodium Hydroxide (50% solution) | Sodium Hydroxide | 0.366 | Merck |
| Phase B | | | |
| Synperonic* PE/F 127 | Poloxamer 407 | 3.000 | Croda |
| Phase C | | | |
| Sodium Saccharin | Sodium Saccharin | 0.050 | Merck |
| Sodium Benzoate | Sodium Benzoate | 0.250 | Merck |
| FD&C Blue No. 1 | CI 42090 | 0.0003 | KOEL |
| Phase D | | | |
| Wintergreen Flavor | Flavor | 0.500 | Takasago |
| Benzoic Acid | Benzoic Acid | 0.250 | Merck |
| Total | | 100.00 | |

Lab processing procedure

- 1. Sprinkle Gantrez S-97BF powder into glycerin under the agitation of a propeller mixer until dissolved.
- 2. Slowly add water to the above mixture under agitation. Mix for 15 minutes at 700 rpm.
- 3. Neutralize above premix with sodium hydroxide under stirring.
- 4. Add poloxamer 407 flakes to the above neutralized mixture. Mix it until completely solubilized at 600 rpm.
- 5. Add Phase C to above mixture and mix for 10 minutes at 500 rpm.
- 6. Solubilize benzoic acid into flavor and add it slowly to above mixture and mix for 10 minutes at 500 rpm.



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Typical Properties

Appearance:Clear, transparent light blue liquidpH:5.5-5.7

This formula has passed 3-months accelerated stability test and a 28-day preservative efficacy test. However, the preservative system and flavor have not been optimized.

*Third party trademark

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