



Formulation

Name	SULFATE-FREE CONDITIONING ANTI-DANDRUFF SHAMPOO																									
No.	1210																									
Description	This sulfate-free, amide-free and Zinc Pyrithione-containing formulation provides good foam, combability, and conditioning properties.																									
Formulation	INGREDIENTS: Deionized Water Carbopol ETD 2020 Polymer Sodium Hydroxide - 50% Solution STEPAN-MILD® PCL AMPHOSOL® CS-50 STEPAN-MILD® L3 N-Hance™ 3196 Cationic Guar Dow Corning® 2-1491 Emulsion Zinc Pyrithione (50% active) Preservatives, Fragrance, Dye	<table border="0"> <thead> <tr> <th><u>% by Weight</u></th> <th><u>Functionality</u></th> </tr> </thead> <tbody> <tr> <td>q.s. to 100.00</td> <td>Diluent</td> </tr> <tr> <td>0.80</td> <td>Suspending Agent</td> </tr> <tr> <td>0.07</td> <td>pH Adjuster</td> </tr> <tr> <td>55.50</td> <td>Primary Surfactant</td> </tr> <tr> <td>5.50</td> <td>Secondary Surfactant</td> </tr> <tr> <td>0.50</td> <td>Conditioning Agent</td> </tr> <tr> <td>0.15</td> <td>Conditioning Agent</td> </tr> <tr> <td>3.30</td> <td>Conditioning Agent</td> </tr> <tr> <td>2.00</td> <td>Antidandruff Agent</td> </tr> <tr> <td>q.s.</td> <td>Fragrance, Preservative</td> </tr> <tr> <td>Total</td> <td>100.00</td> </tr> </tbody> </table>	<u>% by Weight</u>	<u>Functionality</u>	q.s. to 100.00	Diluent	0.80	Suspending Agent	0.07	pH Adjuster	55.50	Primary Surfactant	5.50	Secondary Surfactant	0.50	Conditioning Agent	0.15	Conditioning Agent	3.30	Conditioning Agent	2.00	Antidandruff Agent	q.s.	Fragrance, Preservative	Total	100.00
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Procedure	<ol style="list-style-type: none"> Charge Deionized Water. Activate mixing from moderate to high speed, taking precautions to avoid splashing and aeration. If necessary, mild heating may be employed to accelerate ingredient mixing. Slowly disperse Carbopol ETD 2020 Polymer into the vortex. Check for any clumping before adding additional polymer. With good agitation, continue mixing 20–30 minutes until the viscosity of the solution increases. No particles should be present. Add the Sodium Hydroxide - 50% Solution. The viscosity of the solution will increase. Continue mixing at low-to-moderate speed. Add STEPAN MILD® PCL, mixing until homogenous while avoiding aeration. Add AMPHOSOL® CS-50. Mix until homogenous. Avoid aeration. In a separate small container, weigh the N-Hance™ 3196 Cationic Guar. Then add STEPAN-MILD® L3, mixing until combined. When thoroughly mixed, add to the batch. Continue mixing for approximately 30 minutes. Add Zinc Pyrithione and continue mixing. Add Dow Corning® 2-1491 Emulsion, mixing for another 20 minutes. Use Sodium Hydroxide - 50% Solution to adjust pH to 5.5–6.5. Add Preservatives, Fragrance, and Dye. Continue mixing another 20 minutes until homogenous. 																									
Physical Properties	Appearance at 25°C pH, as is Viscosity at 25°C, cps	Opaque, free-flowing liquid 5.0–6.5 4,000 – 8,000																								
Storage/ Stability	Freeze/thaw, 3 cycles 3 months at 50°C 3 months at 40°C 3 months at 4°C	Pass Pass Pass Pass																								

Instructions
for Use

Wet hair. Massage into scalp. Lather and then rinse. Repeat as desired.

External
Comment

Marketing Notes: Sulfate free is defined by Stepan as containing no Alcohol Sulfates and no Alcohol Ether Sulfates as per the INCI Nomenclature.

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STEPAN-MILD®
AMPHOSOL®

For
Additional
Assistance

For applications or product handling assistance, call our Technical Service Department at 1-800-745-7837 (U.S.) or 011-334-76-505-100 (Europe).

For ordering assistance, call our Account Service Department at 1-800-457-7673.

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