

Formulation

Name	LAUNDRY STICK PRE-TREATER	
No.	1141	
Description	A stick formulation is a great option for travel or on-the-go products. This formulation also contains enzymes to help treat and remove stubborn protein-based stains.	
Formulation	INGREDIENTS:	<u>% by Weight</u> <u>Functionality</u>
	BIO-SOFT® N25-7	46.0 Surfactant
	Propylene Glycol	31.0 Structure Agent
	Stearic Acid (powder or flake)	8.5 Structure Agent
	Sodium Hydroxide (50% aqueous solution)	2.5 Neutralizer
	Protease	1.5 Enzyme
	Deionized Water and Fragrance	q.s. to 100 Additives
	Total	100.0
Procedure	<ol style="list-style-type: none"> 1. Add Propylene Glycol with mixing. 2. Add 1/2 of the calculated Deionized Water charge with mixing. 3. Add Sodium Hydroxide with mixing. 4. Add remaining Deionized Water charge with mixing and heat batch to 165°F–175°F (74°C–79°C). 5. Add BIO-SOFT® N25-7 with mixing. 6. Add Stearic Acid with mixing. Mix for a minimum of 20 minutes until all Stearic Acid dissolves in solution. Temperature must be maintained between 165°F–175°F (74°C–79°C). 7. Sample batch for pH. pH of a 1% aqueous solution of the formula should be between 8.8 and 9.3. If pH is below 8.8, adjust into range with 50% Sodium Hydroxide. If above pH 9.3, adjust into range with Hydrochloric Acid. 8. Once pH is measured to be in spec, cool batch to 130°F–135°F (54°C–57°C), and then add Fragrance with mixing. 9. Transfer batch to run tank. 10. Inject Protease in-line with batch compound at filling heads with mixing. 	
Physical Properties	Appearance at 25°C	Opaque solid
	pH, 1% aqueous	8.8–9.3 (Target 9.1)
	Hardness	30.0–75.0 (Reading with penetrometer using standard cone)
Storage/Stability	4 Weeks at 5°C	Pass
	4 Weeks at Room Temperature	Pass
	4 Weeks at 40°C	Pass
Instructions for Use	<ol style="list-style-type: none"> 1. Before use, test product on an inconspicuous area. 2. Apply pre-treater to stained area, rubbing into fabric. Completely cover the stain. 3. Let stand one minute. If desired, wait up to one week before washing. 4. Wash according to care label instructions. Launder in the warmest water recommended for fabric. 	

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Assistance

For applications or product handling assistance, call our Technical Service Department at 1-800-745-7837 (U.S.) or +33 476 505 100 (Europe).

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

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