



Formulation

Name	1-TO-9 DILUTABLE FAST-WETTING GLASS AND WINDOW CLEANER CONCENTRATE	
No.	1110	
Description	This environment-friendly concentrate may be suitable for Safer Choice certification, containing Stepan surfactants that are approved on www.cleangredients.org (BIO-SOFT® N1-7 and BIO-TERGE® PAS-8S) and a solvent that is listed on the U.S. EPA's Safer Chemical Ingredient List (SCIL). The nonionic surfactant used, BIO-SOFT® N1-7, allows the cleaner to wet and spread over surfaces quickly and efficiently, while the specialty anionic surfactant, BIO-TERGE® PAS-8S, improves the final appearance with reduced filming and streaking on glass. See Stepan Company's Formulation # 1092 for a ready-to-use version of this Formulation. Green Your Clean using Stepan ingredients!	
Formulation	<u>INGREDIENTS:</u>	<u>% by Weight</u> <u>Functionality</u>
	=== Phase 1 === Deionized Water BIO-TERGE® PAS-8S	71.2 Diluent 18.0 Hydrotrope, Cleansing Agent
	=== Phase 2 === BIO-SOFT® N1-7	1.8 Wetting Agent, Cleansing Agent
	=== Phase 3 === Isopropanol	9.0 Solvent
	=== Phase 4 === Fragrance, Preservative, and Dye	q.s. Additives
	Total	100.0
Procedure	<ol style="list-style-type: none"> 1. Charge Deionized Water and BIO-TERGE® PAS-8S. 2. With good agitation, slowly blend in BIO-SOFT® N1-7. 3. Once clear, add Isopropanol. 4. Add Fragrance, Preservative and Dye. 5. Mix until homogenous. 	
Physical Properties	Appearance at 25°C pH, as is Viscosity at 25°C % VOC, as is (calculated) % VOC at 1 to 9 dilution (calculated) Flash Point, °F, PMCC	Clear liquid 5 Water thin 9.9 <1 115
Storage/ Stability	Freeze thaw, 3 cycles 1 month at 50°C 1 month at 25°C 1 month at 5°C	Pass Stable Stable Stable

Instructions for Use

Dilute 1 part concentrate with 9 parts water. Spray on mirror or glass surface and wipe clean with paper towel or cloth.

Stepan Method SM 250-A, 'Hard Surface Cleaner Filming/Streaking Evaluation'; Results" 9.5 out of 10. Performance is comparable to market leader.

External Comment

Marketing Notes: At use dilution, this formulation meets U.S. Federal and all State Volatile Organic Compounds (VOC) standards for Non-aerosol Glass Cleaners of January 2019 (excluding additives). BIO-TERGE® PAS-8S is an approved ingredient on www.cleangredients.org. It also does not contain nonylphenol ethoxylates (NPEs). "Environment-friendly" and "Green" refer to the use of ingredients that are considered favorable by the U.S. EPA Safer Choice standard (<https://www.epa.gov/saferchoice/safer-choice-standard>). U.S. EPA's Safer Chemical Ingredient List (SCIL) can be found at <https://www.epa.gov/saferchoice/safer-ingredients>. Label and/or trademark usage of the final product is the sole responsibility of the finished product manufacturer, for which Stepan bears no responsibility.

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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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