

Formulation

Name	ENGINE/TRUCK DEGREASER (CONCENTRATE & READY-TO-USE)	
No.	1326	
Description	<p>If you are looking to formulate a parts cleaner, engine cleaner or a heavy-duty degreaser with an improved environmental profile, start with BIO-SOFT® DR-13 as your nonionic surfactant. This engine/truck degreaser formulation can be used directly on engines and heavily soiled surfaces or diluted for more general cleaning needs. The formulation contains BIO-SOFT® DR-13 and STEPANATE® SXS, which are listed on CleanGredients, and meet the criteria for direct release for use in outdoor products certified by the U.S. EPA's Safer Choice Program. The combination of BIO-SOFT® DR-13, STEPANATE® SXS, builder, chelating agent, and solvent helps break through tough, industrial-type greasy soils, making them easier to remove. BIO-SOFT® DR-13 is a versatile nonionic surfactant that will help meet your formulating needs. Green Your Clean using Stepan Ingredients!</p>	
Formulation	<p>INGREDIENTS:</p> <p>Deionized Water BIO-SOFT® DR-13 STEPANATE® SXS Diethylene Glycol Mono-N-Butyl Ether Tetrasodium Glutamate Diacetate (GLDA), 47% solution Citric Acid</p> <p>Total</p>	<p><u>% by Weight</u> <u>Functionality</u></p> <p>q.s. to 100.0 Diluent 11.0 Cleansing Agent 7.0 Hydrotrope 3.8 Solvent 7.5 Chelating Agent q.s. pH Adjuster, Builder</p> <hr/> <p>100.0</p>
Procedure	<p>1. Mix STEPANATE® SXS and Deionized Water. 2. Slowly add GLDA, 47% solution, and mix until thoroughly dissolved. 3. Add Diethylene Glycol Mono-N-Butyl Ether, mix, and follow up with BIO-SOFT® DR-13. 4. Add Citric Acid to adjust pH to 10-11. The typical amount needed is 0.2% to 0.1% by weight.</p> <p>-</p> <p>Alternate Ingredients: 1. BIO-SOFT® DR-139 can be used as an alternate to BIO-SOFT DR-13. Adjust amount to 12.9% by weight. 2. Methylglycine N,N-Diacetic Acid (MDGA), 40% solution can be used as an alternate chelating agent to Tetrasodium Glutamate Diacetate (GLDA), 47% solution. Adjust amount to 7.1% by weight.</p>	
Physical Properties	<p>Appearance at 25°C pH, as is Viscosity at 25°C, cps VOC, as is (calculated), %</p>	<p>Clear liquid 10 - 11 Water thin 0.38</p>
Storage/Stability	<p>Freeze/Thaw, 3 cycles 4 weeks at 50°C 4 weeks at 25°C 4 weeks at 4°C</p>	<p>Pass Stable Stable Stable</p>
Instructions for Use	<p>Recommended dilution level is 1:10 to 1:20.</p>	

External
Comment

Marketing Notes: All Stepan ingredients in this formulation are approved for use in direct release applications under the surfactant screen of the U.S. EPA Safer Choice Standard and are listed on www.cleangredients.org. Safer Choice formulations for outdoor use must contain chemicals that meet the U.S. EPA Safer Choice criteria for direct release products (<https://www.epa.gov/saferchoice/products>). U.S. EPA's Safer Chemical Ingredient List (SCIL) can be found at <https://www.epa.gov/saferchoice/safer-ingredients>. This formulation is Volatile Organic Compound (VOC) compliant with U.S. Federal and all State VOC standards for general-purpose cleaners as of January 2019 (excluding additives). "Improved environmental profile" and "green" refer to the use of Stepan ingredients that are considered favorable by the U.S. EPA Safer Choice standard (<https://www.epa.gov/saferchoice/safer-choice-standard>). The manufacturer is responsible for the use of other "green" ingredients, including but not limited to Chelating Agent, Builder, Preservative, Fragrance, and/or Dye. Use of the term "green" or other environmental claims on the finished product or label is at the sole risk of the finished product manufacturer, for which Stepan bears no responsibility. Label and/or trademark usage of the final product is the sole responsibility of the finished product manufacturer."

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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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