

Product Name	STEP-FLOW® 4000
Chemical Description	STEP-FLOW 4000 is a polymethyl methacrylate-polyethylene glycol graft copolymer.
Applications	STEP-FLOW 4000 is a 30-35% active, aqueous based dispersant. It is a water soluble “comb” polymer dispersant used in suspoemulsions and suspension concentrates.
Typical Properties	<p>Appearance at 25°C Amber brown, clear to slightly turbid liquid</p> <p>pH, 1% aqueous 4.7</p> <p>Density at 25°C, g/mL (U.S. lbs/gal) 1.07 (8.93)</p> <p>Solids, % 33</p> <p>Moisture, % 50</p> <p>Viscosity at 25°C, cps 80</p> <p>Flash Point, PMCC, °C (°F) >94 (>201)</p> <p>Solubility: Water Soluble</p> <p style="padding-left: 20px;">Methanol Soluble</p> <p style="padding-left: 20px;">Kerosene Insoluble</p> <p style="padding-left: 20px;">Xylene Insoluble</p>
Storage & Handling	<p>Normal safety precautions (e.g., gloves and safety goggles) should be employed when handling STEPANTEX HTS-100. Contact with eyes, nose or prolonged contact with skin should be avoided. Wash thoroughly after handling STEP-FLOW 4000. See SDS for more information.</p> <p><u>Standard Packaging:</u> STEP-FLOW 4000 is available in drum, tote and bulk quantities.</p> <p><u>Non-Bulk Storage Recommendations:</u> STEP-FLOW 4000 should be stored in closed containers and kept in a cool, dry place away from incompatible materials (see Section 10 of the SDS). If material is frozen it should be heated gently and stirred to ensure it is homogeneous prior to use.</p> <p><u>Bulk Storage Recommendations:</u> STEP-FLOW 4000 can be stored in vessels of carbon steel but 316 or 304 stainless steel is preferred. Tanks should be closed with venting through a gooseneck vent. STEP-FLOW 4000 should be stored between 90-110°F (32-38°C). External steam panel coils can be used if heating is required. Pumps, pipes and transfer lines can be carbon steel but 316 or 304 stainless steel is preferred. Storage under nitrogen will prevent degradation of the product over time.</p>
Workplace Exposure	Occupational exposure can occur primarily through skin contact or via inhalation of vapors and mists. Engineering controls, personal protective equipment, and other workplace safety practices should be used to control these exposures. See SDS for more information.
Clearances	<p>The international inventories (country clearances) of STEP-FLOW 4000 can be found in Section 15 of the Safety Data Sheet (SDS). It is the responsibility of the formulator to review the chemical control regulations for each country where the end-product is intended to be sold or used. If you have any further questions regarding inventories, please contact North America Technical Service at techserv@stepan.com.</p> <p>STEP-FLOW 4000 is exempt from the requirement of a tolerance under 40CFR 180.910, 180.930, and 180.940a.</p>

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Product
Stewardship

This product bulletin has been written in accordance with ACC's Product Stewardship guidelines.

Additional
Safety
Information

A Safety Data Sheet (SDS) is available upon request.



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Stepan 
Corporate Headquarters
Northbrook, Illinois 60062, U.S.A.
Phone: 847-446-7500
Fax: 874-501-2100
Website: www.stepan.com

For Technical Service Call:
Stepan North America **+1-800-745-7837**
Stepan Mexico **+55-11-5089-2208**
Stepan Quimica **+55-11-5089-2200**
Stepan Colombia **+571-636-2808**
Stepan Europe **+33-476-505-160**
Stepan Asia **+656-879-9855**
Stepan Philippines **+656-879-9855**

For Customer Service Call:
Stepan North America **+1-800-457-7673**
Stepan Mexico **+52-555-533-1967**
Stepan Quimica **+55-11-5089-2200**
Stepan Colombia **+57-6-8993125**
Stepan UK **+44-161-338-5511**
Stepan France **+33-476-50-51-00**
Stepan Philippines **+63-2-842-7951**