



BIODEGRADATION OF BETAINES

Applicable to these current Stepan products:

AMPHOSOL® 810-B	AMPHOSOL® CA	AMPHOSOL® CA-K
AMPHOSOL® CG	AMPHOSOL® CG-50	AMPHOSOL® CS-50
AMPHOSOL® HCA-HP	AMPHOSOL® HCG	AMPHOSOL® HCG-HP
AMPHOSOL® HCG-K	AMPHOSOL® LB	PETROSTEP® CG-50

Applicable to these inactive Stepan products:

AMPHOSOL® CG-K	AMPHOSOL® HCA	AMPHOSOL® LDB
AMPHOSOL HCA-C		

Biodegradation Information:

Betaines are the most important secondary surfactants. They were introduced to the personal care market in the mid-1960's, however, their usage in the 1990's has grown exponentially. These compounds prove to be readily biodegradable in the Organization for Economic Cooperation and Development (OECD) tests for ultimate biodegradation. Their degradation to CO₂, H₂O, inorganic salts and biomass occurs quantitatively and no recalcitrant metabolites are formed¹

Stepan's AMPHOSOL CA has been tested for ready biodegradability. The OCED 301B Study (Modified Strum Test) has shown this product to be readily biodegradable.²

References:

1Handbook of Applied Surface and Colloid Chemistry, L. Holmberg (editor), John Wiley & Sons, 2001, pp. 349-372

2Stepan Study No. 94-007A

AMPHOSOL® ; PETROSTEP® are registered trademarks of Stepan Company.

Last Update: 1.27.2011

Revision reference: BI020-06

Nothing contained herein grants or extends a license, express or implied, in connection with patents, issued or pending, of the manufacturer or others. The information contained herein is based on the manufacturer's own study and the works of others. The manufacturer makes no warranties, expressed or implied, as to the accuracy, completeness, or adequacy of the information contained herein. The manufacturer shall not be liable (regardless of fault) to the vendee's employees, or anyone for any direct, special or consequential damages arising out of or in connection with the accuracy, completeness, adequacy or furnishing of such information.