



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® DM	AMPHOSOL® DM-X	AMPHOSOL® HCA-HP
AMPHOSOL® HCA-HP-X	AMPHOSOL® HCA-K-X	AMPHOSOL® HCG
AMPHOSOL® HCG-HP	AMPHOSOL® HCG-K	AMPHOSOL® LB
PETROSTEP® CG-50	AMPHOSOL® CG-50-X	AMPHOSOL® CG-C-X
AMPHOSOL® CG-U-X	AMPHOSOL® HCA-SB	AMPHOSOL® DM/MB

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

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