



ECOTOXICOLOGY OF ALKYL ETHER SULFATES

Applicable to these current Stepan products:

ALPHA FOAMER®	CEDEPAL® FA-406	CEDEPAL® TD-403 MFLD
CEDEPAL® TD-403 MKLD	CEDEPAL® TD-407	POLYSTEP® B-11
POLYSTEP® B-12	STEOL® 4N	STEOL® CA-230
STEOL® CA-330	STEOL® CA-460	STEOL® CS-130
STEOL® CS-130 DMDM K	STEOL® CS-130 HP	STEOL® CS-170
STEOL® CS-170 UB	STEOL® CS-230	STEOL® CS-230-KE
STEOL® CS-230 K	STEOL® CS-230 PC HP	STEOL® CS-230 PCK
STEOL® CS-270	STEOL® CS-270 SU	STEOL® CS-330
STEOL® CS-360	STEOL® CS-370	STEOL® CS-460
STEOL® FS-406	STEOL® OS-270	STEOL® OS-330
STEOL® TD-403-65	STEPOSOL® CA-207	STEPOSOL® CA-406H
STEOL® 23-2S.70 CP	STEOL® OS-230 2.0	STEOL® TD-403 MFLD
STEOL® CS-270 LDX	STEOL® CS-370E	STEOL® CS-270 LDX HP
STEOL® CS-270 2.0 LDX	STEOL®CS-370 L6 CP	STEOL®25-3S/70 FC
STEOL®25-3S.70 CP		

Applicable to these inactive Stepan products:

CEDEPAL® TD-403	CEDEPAL® TDS-484LD	PETROSTEP® ES-65A
POLYSTEP® B-22	STEOL® CA-130	STEOL® CA-230-D
STEOL® CA-330-E	STEOL® CS-230-E	STEOL® CS-230 PCF
STEOL® TD-403-70	STEPOSOL® CA-319	STEOL® CS-270 2.2
STEOL® OS-170		

Toxicological Information:

<u>Test/Conditions</u>	<u>Results/Classification</u>	<u>References</u>
Aquatic Toxicology		

Acute Aquatic Toxicity (fathead minnow) (static) (48 hr)	LC ₅₀ > 1.5 mg/L (moderately toxic)	EHSMS* Vol. 1, Part 2
Acute Aquatic Toxicity (rainbow trout) (static) (96 hr)	LC ₅₀ > 8.9 mg/L (moderately toxic)	EHSMS Vol. 1, Part 2
Acute Aquatic Toxicity (<u>Daphnia magna</u>) (24 hr)	LC ₅₀ > 5-37 mg/L (moderately to slightly toxic)	EHSMS Vol. 1, Part 2
Acute Aquatic Toxicity (<u>Selenastrum capricornutum</u>)	EC ₅₀ > 65 mg/L (slightly toxic)	EHSMS Vol. 1, Part 2

References:

*Environmental and Human Safety of Major Surfactants. Volume 1. Anionic Surfactants Surfactants Part 2. Alcohol Ethoxy Sulfates, p. V-1 to V-50.

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