



## ECOTOXICOLOGY OF ALKANE SULFONATES

### Applicable to these current Stepan products:

BIO-TERGE® PAS-8S	BIO-TERGE® PAS-8S E	BIO-TERGE® PAS-7S
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### Toxicological Information:

<u>Test/Conditions</u>	<u>Results/Classification</u>	<u>References</u>
Acute Aquatic Toxicity (fish)(96 hrs.)	For C <sub>8</sub> and greater LC <sub>50</sub> ≥ 10 mg/l for C <sub>10-14</sub> LC <sub>50</sub> = 1-10 mg/l for C <sub>16</sub> and greater EC <sub>50</sub> < mg/l	HPV Assessment (1)
Acute Aquatic Toxicity (daphnia)(48 hrs.)	For C <sub>8</sub> – C <sub>12</sub> EC <sub>50</sub> = 421 mg/l for C14 EC <sub>50</sub> ≥ 60 mg/l	HPV Assessment
Acute Aquatic Toxicity (algae)(72 hrs.)	For C12 to C <sub>14-15</sub> EC <sub>50</sub> = 4.6 mg/l to > 120 mg/l	HPV Assessment
Long Term (chronic)(fish)	42-d-NOEC > 1.36 mg/l (C <sub>12</sub> ) Larval test	HPV Assessment
Long Term (chronic)(rotifer)(48 hrs.)	EC <sub>20</sub> = 4.5 mg/l	HPV Assessment
Long Term (chronic)(algae)	NOEC > 30 mg/l (C <sub>12</sub> )	AS HPV Assessment

LC50/EC50 = Lethal/effective concentration to 50% of organisms.

NOEC – No observed effective concentration.

As with Alkyl Sulfates, the most important influencing parameter for aquatic toxicity is the chain length of the carbon chain.

### References:

1. Alky Sulfates, Alkane Sulfonates and Alpha-Olefin Sulfonates: SIDS Initial Assessment Report, 2007.

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Last Update: August 8, 2023

Revision Reference: TX058.01

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