



MAMMALIAN TOXICOLOGY OF ALCOHOL ETHOXYLATES

Applicable to these current Stepan products:

BIO-SOFT® AE-3	BIO-SOFT® E-670	BIO-SOFT® E-678
BIO-SOFT® E-840	BIO-SOFT® E-847	BIO-SOFT® EC-600
BIO-SOFT® EC-639	BIO-SOFT® EC-690	BIO-SOFT® EN-600
BIO-SOFT® EN-695	BIO-SOFT® EN8-90	BIO-SOFT® ET-650
BIO-SOFT® FF-400	BIO-SOFT® FF-600	BIO-SOFT® GSB-9
BIO-SOFT® N-1200	BIO-SOFT® N-400	BIO-SOFT® N-600
BIO-SOFT® N-900	BIO-SOFT® N-901	BIO-SOFT® N-905
BIO-SOFT® N1-3	BIO-SOFT® N1-5	BIO-SOFT® N1-7
BIO-SOFT® N1-73B	BIO-SOFT® N1-9	BIO-SOFT® N23-3
BIO-SOFT® N23-5	BIO-SOFT® N23-6.5	BIO-SOFT® N25-12
BIO-SOFT® N25-3	BIO-SOFT® N25-7	BIO-SOFT® N25-9
BIO-SOFT® N45-7	BIO-SOFT® N91-2.5	BIO-SOFT® N91-6
BIO-SOFT® N91-8	BIO-SOFT® TD-630	MAKON® DA-6
MAKON® TD-12	MAKON® TD-18	MAKON® TD-3
MAKON® TD-30	MAKON® TD-50	MAKON® TD-6
MAKON® TD-8	MAKON® TD-9	POLYSTEP® TD-129
POLYSTEP® TD-189	POLYSTEP® TD-3	POLYSTEP® TD-6
STEPANTEX® TD-560	STEPANTEX® TD-630	

Applicable to these inactive Stepan products:

BIO-SOFT® AE-1	BIO-SOFT® AE-2	BIO-SOFT® EA-10
BIO-SOFT® EA-8	POLYSTEP® AE-120	

Toxicological Information:

<u>Test/Conditions</u>	<u>Results/Classification</u>	<u>References</u>
Mammalian Toxicology:		
Acute Oral Toxicity (rat) (14 day) (gavage)/	LD ₅₀ > 2g/kg (slightly toxic orally)	Stepan Study No. 97-006A

n = 5/dose/sex	@ 100% concentration)	
Acute Dermal Toxicity (rabbit)(14 day) N=5/dose/sex	LD ₅₀ > 2g/kg (slightly toxic dermally @ 100% concentration)	Stepan Study No. 97-006B
Primary Dermal Irritation/Corrosivity (rabbit)(4 hr exposure) n=6	a.) PII ⁽¹⁾ =2.12/8 (moderately irritating to skin @ 100% concentration)	Stepan Study No. 97-006C
	b.) PII=0.13/8 (slightly irritating to skin @ 10% solution)	Stepan Study No. 97-006D
Primary Eye Irritation/Corrosivity (rabbit) (21 day observation) n=6	a.) MMS ⁽²⁾ 56/110 (severely irritating to eyes @ 100% concentration @ 14 days)	Stepan Study No. 97-006E
	b.) MMS=35.3/110 (moderately irritating to eyes @ 10% solution @ 24 hr.)	Stepan Study No. 97-006F
Dermal Sensitization (Buehler)(guinea pig)	Not a dermal sensitizer	*EHSMS
Chronic Oral Toxicity (rat) (104 weeks) (diet) (doses: 0, 50, 250 or 500 mg/kg/day)	No tumors or other treatment related lesions were observed	EHSMS
Chronic Dermal Toxicity (mouse)(18 months) (dermal application) (doses: 0,0.2, 1.0 or 5.0%)	No treatment related lesions observed	EHSMS
Genotoxicity (Ames Test/Chromosome aberrations)	Negative	EHSMS
Developmental/Reproductive Toxicity (rats) (dermal application or diet) (doses up to 250 mg/kg/day)	No treatment related changes in reproduction/development parameters observed	EHSMS
⁽¹⁾ PII = Primary Skin Irritation Index		
⁽²⁾ MMS=Maximum Group Mean Draize Score		

References:

*Environmental and Human Safety of Major Surfactants, (AE & APE) S.S. Talmage, Lewis Publishers, 1994.

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