Technical Information

Stepan

Stepan Company

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MAMMALIAN TOXICOLOGY OF DIMETHYL AMIDES

Applicable to these current Stepan products:

HALLCOMID® M-10	HALLCOMID® M-8-10	STEPOSOL® M-10
STEPOSOL® M-8-10		

Toxicological Information:

Test/Conditions	Results/Classification	References
Acute Oral Toxicity (rat)(gavage)(14 days) n=5/sex/dose	LD ₅₀ > 2000 mg/kg (slightly toxic orally)	ECHA REACH dossier*
Acute Dermal Toxicity (rat)(dermal application)(15 days) n=5/sex/dose	LD ₅₀ > 2000 mg/kg (slightly toxic dermally)	ECHA REACH dossier*
Acute Inhalation Toxicity (rat)(head/nose only exposure)(4 hr exposure) n=5/sex/dose	LC ₅₀ > 3551 mg/m air (highest dose tested; slightly toxic via inhalation)	Stepan Study No. 91-055A
Primary Skin Irritation (rabbit)(4 hr exposure) n=3	Mean erythema = 3.3/4.0, mean edema = 3.0/4.0 (moderately to severely irritating to skin @ 100% active)	ECHA REACH dossier*
Primary Skin Irritation- D.O.T. Corrosivity-Corrositex Method (rabbit)(4 hr exposure) n=6	Not corrosive to the skin @ 100% active	Stepan Study No. 90-024A
Primary Eye Irritation (rabbit)(24 hr exposure) n=1	Max irritation score = 66/110 @ 100% active (test was stopped on Day 4, but irritation was expected to persist for more than 21 days)	Stepan Study No. 90-022A
Primary Eye Irritation- Bovine	18.7 - 26.6	Stepan Study Nos.

Corneal Opacity Permeability Test (BCOP)	(mild to moderate eye irritant)	08-005A; 11-003A
Sensitization Study (guinea pig)(6 hr. exposure) n=46	Not a skin sensitizer	Stepan Study No. 90-020A
Genotoxicity Study (Ames)(bacteria)(48 hr)	Non-mutagenic	Stepan Study No. 92-030A
Genotoxicity Study (chromosomal aberration)(4 hr exposure)	Non-clastogenic	Stepan Study No. 95-028A
Genotoxicity Study (unscheduled DNA synthesis)(24 hrs)	Negative	Stepan Study No. 91-049A
Embryotoxicity/Teratogenicity Study (rabbit)(gavage) doses: 0, 100, 300, 1000 mg/kg bw/day n=16 mated females/dose	NOAEL (maternal) = 300 mg/kg bw/day; NOAEL (fetal) = 1000 mg/kg bw/day No teratogenic potential revealed up to and including highest dose level	Stepan Study No. 91-051A
Embryotoxicity/Teratogenicity Study (rat)(gavage) doses: 0, 50, 150, 450 mg/kg bw/day n=25 mated females/dose	NOAEL= 50 mg/kg body wt(maternal); NOAEL= 150 mg/kg body wt. (fetal) No teratogenic potential revealed up to and including highest dose level	Stepan Study No. 91-053A

References:

*ECHA REACH dossier for Reaction mass of N,N-dimethyldecan-1-amide and N,N-dimethyloctanamide (EC no. 909-125-3)

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