

MICHIGAN DEPARTMENT OF NATURAL RESOURCES

INTEROFFICE COMMUNICATION

February 24, 1993

TO: Clindamycin Phosphate Fiel (CAS # 24729-96-2)
FROM: Gary Butterfield
SUBJECT: ITSL for Clindamycin Phosphate

A Feb 4, 1993 CAS-on-line literature search found only one hit, a QSAR model of teratogenesis which is not utilizable for calculation of the ITSL for clindamycin phosphate. No MSDS was provided by The Upjohn Company for this material. A search of studies listed in RTECS found many studies looking at reproductive effects by an injection route of exposure and a couple of oral LD50's. One of which was from a foreign journal - not available for review. The other identified an oral LD50, as reported by Gray et al (1974), of 1832 mg/kg (with a 95 % confidence interval of 1500-2236). The main focus of this article was effects on animals injected with clindamycin phosphate, the oral LD50 portion of this article was briefly described as groups of 175 gm Sprague-Dawley rats being administered aqueous solutions of clindamycin 2-phosphate, the rats were observed for a 7 day observation period following administration, the LD50 was determined by methods described by Finney (1952). Although the LD50 methodology was only briefly described, the LD50 does appear to have been determined by a means that is appropriate for calculation of the ITSL. One short coming of this study, when compared to most LD50 determinations, the observation period was not 14 days in length. The authors reported all observed deaths in this oral study occurred within 24 hours of administration. Therefore the 7 day observation period can be considered to be adequately long.

Based on a LD50 of 1832 mg/kg as reported by Gray et al (1974), the ITSL for clindamycin phosphate was calculated to be 6 ug/m³, with annual averaging.

References:

Gray et al. 1974. The parenteral toxicity of clindamycin 2-phosphate in laboratory animals. Toxicol Appl Pharmacol 27:308-321.

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