Carragennan

Toxicological Data on the Unburnt Ingredient

Organism	Test Type	Route	Reported Dose	Reference
Guinea pig	LD_{Lo}	*i.v.*	20 mg/kg	Nature. Vol. 202, Pg. 401, 1964
Rabbit	LD_{Lo}	*i.v.*	5 mg/kg	Journal of Pharmacy and Pharmacology. Vol. 17, Pg. 647, 1965

There is no data to suggest that carrageenan is carcinogenic to humans. Furthermore, there is inadequate evidence of carcinogenicity in animals. Therefore, IARC has evaluated carrageenan as a Group 3 compound: The agent is not classifiable as to its carcinogenicity to humans [IARC].

Oral doses in man have induced no reported toxic reactions more serious than watery diarrhoea [Gosselin et al].

Groups of 5 male & 5 female mice were maintained throughout their lifespan on diets containing 1, 5, 15 or 25% food-grade native carrageenan. No effects were noted with regard to mortality, but food consumption increased, but with no apparent pathological effects on the gastrointestinal tract, liver or kidneys [IARC].

Administration to rhesus monkeys of 1% native carrageenan in drinking-water, providing an intake of 1.3 g/kg body wt for 7-14 weeks, produced no adverse effect [IARC].

Injection of a carrageenan solution into the corneal stroma of guinea pigs has produced a granulomatous reaction [Grant].

References

Grant, Toxicology of the Eye. 3rd ed. Springfield, IL: Charles C. Thomas Publisher, 1986, p. 192
Gosselin et al., Clinical Toxicology of Commercial Products. 5th ed. Baltimore: Williams and Wilkins, 1984.
IARC. Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Man. Geneva: World Health Organization, International Agency for Research on Cancer, p. S7 59, 1987
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