

ISOPROPYL OILS

Data were last reviewed in IARC (1977) and the compound was classified in *IARC Monographs Supplement 7* (1987).

1. Exposure Data

Isopropyl oils are produced as by-products in the reaction of propylene with sulfuric acid during the manufacture of isopropanol and consist of the residue after distillation. They do not appear to have been used commercially (IARC, 1977).

No biological data additional to those described for isopropanol were available to the Working Group (IARC, 1977, 1987).

2. Studies of Cancer in Humans

An increased incidence of cancer of the paranasal sinuses was observed in workers at factories where isopropanol was manufactured by the strong-acid process. The risk for laryngeal cancer may also have been elevated in these workers. It is unclear whether the cancer risk was due to the presence of diisopropyl sulfate, which is an intermediate in the process, to isopropyl oils, which are formed as by-products, or to other factors, such as sulfuric acid. Epidemiological data concerning the manufacture of isopropanol by the weak-acid process are insufficient for an evaluation of carcinogenicity (IARC, 1987).

3. Studies of Cancer in Experimental Animals

Isopropyl oils, formed during the manufacture of isopropanol by both the strong-acid and weak-acid processes, were tested inadequately in mice by inhalation, skin application and subcutaneous administration. Isopropyl oils formed during the strong-acid process were also tested inadequately in dogs by inhalation and instillation into the sinuses (IARC, 1977, 1987).

4. Other Data Relevant to an Evaluation of Carcinogenicity and its Mechanisms

No data were available to the Working Group.

5. Evaluation

There is *inadequate evidence* for the carcinogenicity of isopropyl oils in humans.

There is *inadequate evidence* for the carcinogenicity of isopropyl oils in experimental animals.

Overall evaluation

Isopropyl oils are *not classifiable as to their carcinogenicity to humans (Group 3)*.

6. References

IARC (1977) *IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Man*, Vol. 15, *Some Fumigants, the Herbicides 2,4-D and 2,4,5-T, Chlorinated Dibenzodioxins and Miscellaneous Industrial Chemicals*, Lyon, pp. 223–243

IARC (1987) *IARC Monographs on the Evaluation of Carcinogenic Risks to Humans*, Suppl. 7, *Overall Evaluations of Carcinogenicity: An Updating of IARC Monographs Volumes 1 to 42*, Lyon, p. 229