6. Evaluation and Rationale

6.1 Carcinogenicity in humans

There is *inadequate evidence* in humans for the carcinogenicity of ethyl carbamate.

6.2 Carcinogenicity in experimental animals

There is *sufficient evidence* in experimental animals for the carcinogenicity of ethyl carbamate.

There is *sufficient evidence* in experimental animals for the carcinogenicity of vinyl carbamate.

There is *sufficient evidence* in experimental animals for the carcinogenicity of vinyl carbamate epoxide.

Overall evaluation

Ethyl carbamate is *probably carcinogenic to humans (Group 2A).*

Rationale

The Working Group noted that (i) experimental evidence suggests great similarities in the metabolic pathways of the activation of ethyl carbamate in rodents and humans; and (ii) the formation of proximate carcinogens that are DNA-reactive and are thought to play a major role in ethyl carbamate-induced carcinogenesis in rodents probably also occurs in human cells.