**Summary of classification**

The IARC raised the classification of trichloroethylene (TCE) from Group 2A, “probable human carcinogen” (monograph Vol. 63 (1995)), to Group 1, “human carcinogen” (monograph Vol. 106 (2014)), based on the judgement that there is sufficient evidence for carcinogenicity. The Japan Society for Occupational Health (JSOH) recommended an occupational exposure limit for TCE in 1997 and classified it as Group 2B with respect to classification of carcinogenicity. Since a sufficient number of cohort studies and case-control studies has accumulated and a significant increase in risk of kidney cancer\(^1,2\) has been observed, we have now judged that there is sufficient evidence in the accumulated epidemiological data for the carcinogenicity of TCE. Also, there is sufficient evidence from experimental animals for the carcinogenicity of TCE in the lung, liver and kidney\(^3,4\). In a mechanistic aspect, it was observed that metabolites of GSH conjugation have genotoxicity and that no genotoxicity was observed for people with genetically low GST activity. Based on these findings, it is proposed that the classification for the carcinogenicity of TCE be changed from Group 2B to Group 1 by the JSOH.

**Year of Proposal (revision): 2015**

**Year of Proposal: 1997 (Group 2B)**

**References**