

TABLE 4.14.1.2–4.—Chemical Risk Factors (Air Pathway)¹

CHEMICAL	RISK FACTOR ² (mg/kg-day) ⁻¹	WEIGHT-OF- EVIDENCE CLASSIFICATION	TYPE OF CANCER
INHALATION ROUTE			
1,1,2-trichloroethane	5.6×10^{-2}	C	Hepatocellular carcinoma
Benzene	2.9×10^{-2}	A	Leukemia
Carbon Tetrachloride	5.2×10^{-2}	B2	Hepatocellular carcinoma
Chlorobenzene		D	
Chromium	42	A	Lung
Dibenzofuran		D	
Ethyl Benzene		D	
Ethylene Dichloride	9.1×10^{-2}	B2	Hemangiosarcomas
Formaldehyde	4.6×10^{-2}	B1	Squamous cell carcinoma
Lead	(Not available)	B2	
Mercury		D	
Methane, Dichloro(Methylene Chloride)	1.6×10^{-3}	B2	Hepatocellular carcinoma
Methyl Ethyl Ketone(2-Butanone)		D	
Naphthalene		D	
Nitrobenzene		D	
Phenol		D	
Toluene		D	
Xylene (all isomers)		D	

A – Human carcinogen

B1 – Probable human carcinogen, based on limited human data

B2 – Probable human carcinogen, based primarily on animal data

C – Possible human carcinogen

D – Not classifiable

¹U.S. Environmental Protection Agency. Integrated Risk Information System. March 1995.

²The risk factor is also referred to as a slope factor.

Source: EPA 1995

with chemical concentrations and human exposures (e.g. the amount of time an individual is in contact with the chemical), it is possible to calculate a latent cancer probability. It was assumed that exposure to the public was entirely from inhalation, since airborne transport is the only viable pathway to the public. Using the calculated concentrations in Table 4.14.1.2–1,

toxic chemical emissions would result in a probability of 1.2×10^{-5} that a hypothetical individual living at the plant boundary would contract a latent cancer.