

ELEMENTS OF INDUSTRIAL TOXICOLOGY

TABLE 40-C MAXIMAL ACCEPTABLE CONCENTRATIONS (Continued)

American Standard	Substance	MAC	
		ppm	mg/m ³
Z37.1-1941	Carbon monoxide	100	110
Z37.2-1941	Hydrogen sulfide	20	28.0
Z37.3-1941	Carbon disulfide	20	62.0
Z37.4-1960	Benzene (benzol)	25	8.0
Z37.6-1948	Manganese		60
Z37.7-1943	Chromic Acid and chromates		0.1
Z37.8-1943	Mercury		0.1
Z37.10-1960	Xylene	200	88.0
Z37.11-1943	Lead and certain of its inorganic compounds		0.15
Z37.12-1960	Toluene	200	75.2
Z37.13-1962	Nitrogen dioxide	5	9.4
Z37.14-1944	Methanol	200	26.0
Z37.16-1944	Formaldehyde	10	12.0
Z37.17-1957	Carbon tetrachloride	25	157
Z37.18-1949	Methyl chloride	100	200
Z37.19-1946	Trichloroethylene	200	1,070
Z37.23-1962	Methylene chloride	500	1,700
Z37.27-1961	p-Dichlorobenzene	75	45.0

(Text continued from page 40-3)

Documentation of Threshold Limit Values, the *Hygienic Guides* published by the American Industrial Hygiene Association (AIHA), and the articles of W. A. Cook and H. F. Smyth, Jr. Available references are also given in National Safety Council's Industrial Data Sheet 486, *Chemical Safety References*.

Catalog of Toxic Substances

No attempt has been made to give detailed directions for handling each substance in the following list, since such directions would be repetitious. Instead, enough information is given to permit safe methods to be adopted when combined with the directions for manual and power handling of materials given in previous chapters. This information should also be used in conjunction with the procedures for recognition, evaluation, and control of health hazards discussed in Chapter 39, "Industrial Hygiene."

Some of the signs of excessive exposure to toxic substances are indicated in the following catalog, but should not be taken as conclusive evidence, particularly in cases of possible chronic exposure. To definitely im-

plicate a specific substance requires evidence of both the degree and length of exposure to it and the absence of other causative agents.

The following list presents a representative sampling of the toxic substances encountered in industry and does not describe each of the substances in Table 40-B for which threshold limit values have been established. The *Documentation of Threshold Limit Values*, published by the American Conference of Governmental Industrial Hygienists, should be consulted for this type of detailed information.

The *Hygienic Guides*, published by the American Industrial Hygiene Association, and the National Safety Council's Industrial Data Sheets are listed at the end of the discussion of many of the substances and should also be consulted for further information. Flammable and explosive hazards of many of the following substances are given in Chapter 41, "Table of Chemical Hazards."

Acetaldehyde (acetic aldehyde) is a flammable liquid with a low flash point and a boiling point just at normal room temperature. It is, consequently, a fire hazard com-