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BENZENE

Benzene (benzol) is a clear, colorless and volatile liquid which boils at 176.2°F. (80°C.) and has a pleasant aromatic odor.

Chronic Toxicity:

The greatest hazard associated with benzene exposures is an insidious destructive effect on blood and blood-forming organs. This is most often the result of prolonged or repeated inhalation of vapor in low concentrations, and the condition can be fatal if diagnosis is delayed or excessive exposure is allowed to continue. For this reason an effective control program to limit benzene exposures is mandatory and requires close cooperation with medical and industrial hygiene personnel. A maximum allowable concentration of 25 ppm benzene in air (recently reduced from 35 ppm) has been established for the normal eight-hour working day, but in actual fact, this figure may still be too high. **Most authorities agree that in the light of present knowledge, the only level which can be considered absolutely safe for prolonged exposure is zero.**

Acute Toxicity:

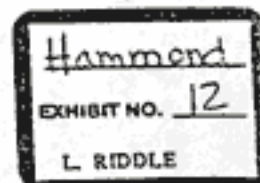
In contrast to its high order of chronic toxicity, benzene has only a moderate order of acute toxicity. In high concentrations benzene vapors are irritating and anesthetic and can depress the respiratory and central nervous systems. Exposures to concentrations of 3000 ppm are said to be endurable for 30 to 60 minutes, but levels of 7500 ppm are reported to be dangerous to life, and 5 to 10 minutes in an atmosphere of 20,000 ppm can be fatal.

Local Effects:

Liquid benzene, like most solvents, may irritate, dry and de-fat the skin. Although these local effects are seldom severe, they may culminate in dermatitis.

Precautions:

Daily eight-hour exposures to concentrations below the maximum allowable concentration of 25 ppm are believed low enough to protect most persons from the chronic toxic effects of benzene vapors, but wherever possible, vapor inhalation should be prevented altogether. Skin contact with benzene should be avoided, and it should never be used as a cleaner to remove grease and grime from the skin or clothes.



(Cont.)

Reg. U.S. Pat. Off.

Esso Research and Engineering Company—Medical Research Division—Linden, New Jersey