the eyes, nose, throat, and lungs

Dichloromethane—see Methylene chloride. Also see *Hygienic Guide*

Dichloromonofluoromethane (Refrigerant 21) is slightly more toxic than dichlorodifluoromethane, but is still essentially an asphyxiant The only real hazard from concentrations of less than about 3 0 per cent by volume is their possible decomposition on a flame or hot surface

1,1-Dichloro-1-nitroethane is a very close chemical relative of chloropicrin, which was widely used as a lachrymatory, lung-injurant gas in World War I, and irritates and injures the eyes, skin, and lungs, and the central nervous system Rabbits and guinea pigs stand prolonged exposures to 25 to 30 ppm without fatalities

Dichlorotetrafluoroethane (Refrigerant 114) has very low toxicity It produces some irritation and restlessness at concentrations of 10 per cent by volume or higher

Dieldrin (1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-1,4,5,8-dimethanonaphthalene) is very closely related chemically and in its physiological actions to aldrin

Diethylamine is used mainly in the dye industry In animal experiments, all the rabbits survived exposures to both 50 ppm and 100 ppm seven hours a day, five days a week for six weeks Even at 50 ppm, however, all the rabbits incurred corneal injuries and lung irritation before the test was completed At 100 ppm the compound also caused injury to the heart, liver, and kidneys

Skin contact causes rapid blistering and necrosis Penetration of the skin is rapid

See *Hygienic Guide*

Diethylene glycol monoethyl ether (Carbitol) is widely used in cosmetic products and as an industrial solvent It is rapidly and easily absorbed through the intact skin, and continued application of large quantities may produce kidney damage In animal experiments, daily doses of 0 02 and 0 04 cc applied to the intact skin caused practically no observable signs Comparable doses applied to a man would be 2 8 and 5 6 cc

Chronic toxicity by ingestion is considerably lower, a daily dose of about 91 cc being the least which would be expected to show symptoms

Because of its extremely low vapor pressure, the material should not be a serious inhalation hazard

Diethylenetriamine is a yellow liquid with a strong, ammonia-like odor Its health hazard is severe for both acute and chronic exposures Contact with the liquid can cause severe skin and eye damage Pulmonary and cutaneous sensitization can occur and remarkably low exposures can induce a high degree of sensitivity

See *Hygienic Guide*

Diisobutyl ketone is a solvent with a relatively high boiling point It is extremely irritating to the eyes, nose, throat, and is relatively toxic, more than most ketones Animal experiments showed liver changes in guinea pigs and rats at all levels of exposure above 125 ppm after 30 days of all-day exposure Three hours of exposure to 50 ppm did not bother human volunteers, but they were uncomfortable after three hours of exposure to 100 ppm The animal experiments indicate that there would probably not be organic changes below 100 ppm

See *Hygienic Guide*

Dimethylaniline is a dye intermediate that is quantitatively somewhat more toxic than aniline, but the actions are qualitatively the same The quantitative difference is not sufficient to be of any great importance

Dimethyl ether. A report in the literature indicates that methyl ether concentrations of 50 per cent methyl ether in air would affect most personnel The observation was made that the gas is most unpleasant to inhale, being distinctly suffocating, even when taken with a high percentage of oxygen From this report it appears that the acute toxicity of methyl ether is very low Like the other alkyl ethers, the primary physiological effect is that of anesthesia The effect of long-term exposure to this compound is unknown

Dimethylformamide is an industrial solvent that may have a defatting action on the skin and may also be absorbed through the skin There is some experimental evidence of liver and kidney damage

See *Hygienic Guide*