

nose and throat in concentrations higher than 200 ppm. Workmen exposed to about 100 ppm complained of headache and nausea but a tolerance developed during the working week. Repeated or prolonged skin contact may cause drying of the skin with primary irritation resulting. Prolonged or repeated contact with the skin should be avoided. Methyl isobutyl ketone should be handled only in areas having adequate ventilation.

Methyl mercaptan (methyl sulfide) is the hydrogen sulfide ester of methanol. Since it is readily hydrolyzed to the parent compounds, it has practically the same toxicity, both qualitatively and quantitatively, as hydrogen sulfide.

Methylcyclohexane is similar in its effects to cyclohexane although it is slightly less toxic and has a lower vapor pressure.

Methylcyclohexanone seems to be somewhat less toxic than cyclohexanone, but the differences are not enough to be of practical importance and the two substances are alike in their qualitative effects.

Methylene chloride (dichloromethane) is one of the least toxic of the chlorinated hydrocarbons. However, because of its low boiling point, high concentrations of the vapor can be easily developed. Its action is usually simply narcotic, although, when inhaled in high concentration, it is capable of producing liver damage.

Mica is a silicate mineral extensively mined for its high value as an electrical insulator and for a wide variety of other uses. There is considerable evidence that people working under excessive exposure to its dust suffer from a disabling pneumoconiosis. See the discussions in Chapter 37, "Industrial Hygiene."

Molybdenum is considered an essential trace element in plants and possibly in mammals. Its health hazard is described as moderate to low. There is no evidence of acute or chronic industrial poisoning. Pathological findings from animal experiments have been limited to such effects as bronchial and alveolar irritation with moderate fatty changes in liver and kidneys.

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Naphtha (coal tar) is mainly a mixture of toluene and xylene and should be treated like those compounds.

Naphtha (petroleum) is a rather indefinite term for any one of a number of solvent mixtures derived from petroleum oil. One should define it more carefully before attempting to assess the hazard.

Naphthalene is a volatile solid. Vapors, given off when naphthalene is heated, form explosive mixtures with air. Reports in the literature indicate that the inhalation of naphthalene vapors may cause headache, loss of appetite, nausea, and kidney damage.

Ingestion of naphthalene in relatively large amounts has reportedly caused severe hemolytic anemia and hemoglobinuria. A hypersusceptibility, probably genetically based, is recognized. Contact dermatitis may result from primary irritation or allergic hypersensitivity, or both.

Eye irritation may result from exposure to naphthalene vapor. Prolonged exposure to high concentrations of vapor can produce opacity of lens. Optical neuritis and injuries to the cornea have also been reported. The threshold limit value of 10 parts per million is recommended as a threshold limit to prevent ocular effects, but possibly not blood changes in hypersusceptible individuals.

Naphthalene is not a serious industrial hazard providing that ordinary precautions are observed to prevent contact with molten material or excessive exposure to dust or high vapor concentrations.

Nickel. In spite of its relatively high toxicity, industrial experience with nickel has been good. However, an increase in nasal, sinus and lung cancer has been noted in workers employed in nickel refineries. The specific carcinogenic agent is still not defined and is the subject of continuing research. The long-range carcinogenic potential should be remembered for all nickel compounds.

Dermatitis, or "nickel itch," is common among nickel platers. It appears to have two components, a simple dermatitis localized to the area of contact and chronic eczema or