



Methyl Chloride Applications

Technical Grade: There is only one grade of methyl chloride available from OxyChem. Ninety-two percent of the methyl chloride produced in the U.S. is consumed as feedstock in the manufacture of the chemical intermediate methyl chlorosilanes. Methyl chlorosilanes are used in the production of silicone fluids, elastomers, and resins. The largest volume goes into silicone fluids, which are used in a wide range of products including processing aids such as antifoaming agents, release agents, and light-duty lubricants. It's also used in specialty chemicals for consumer products such as cosmetics, auto polishes, furniture polishes, and paper coatings.

Silicone elastomers are used in the construction industry as sealants and adhesives and to a lesser degree, in automotive applications, wire and cable insulation, and medical and surgical applications. Silicone resins are used in coating, water-repellent resins, molding resins, laminating resins, and electrical insulation.

Approximately four percent of methyl chloride is used as a raw material for cellulose ethers such as methyl cellulose (CM), hydroxypropyl methylcellulose (HPCM), and hydroxybutyl methylcellulose (HBMC). All of these are used as thickeners and binders in pharmaceuticals, toiletries, and food products. It is also used in the manufacture of building products such as drywall joint cement formulations, cement formulations, stucco, mortars, etc.

Methyl chloride is also consumed in the production of certain quaternary ammonium compounds such as dimethyl ammonium chloride and organomodified clays. Dimethyl ammonium chloride is an ingredient found in fabric softeners. Organomodified clays are used primarily in drilling mud in the oil and gas industry to impart lubricity and viscosity to the system. These markets consume approximately two percent of the methyl chloride produced.

Methyl chloride is a raw material used in the production of agricultural chemicals known as herbicides. They include paraquat, monosodium methanearson (MSMA), and disodium methanearsonate (DSMA). This market also consumes approximately one percent, although it is expected to decline due to environmental concerns.

Another one percent is used as a raw material in the production of butyl elastomers. Butyl rubber is used in inner tubes and inner liners for tires. Additionally, butyl elastomers are used in automotive mechanical goods, caulks and sealants, and pharmaceuticals.

Further Information

More detailed information on chlorinated organic compounds is available upon request through the OxyChem Technical Services Department. Call or write to:

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