IS 4566 : 2020

Specification for methylene chloride (dichloromethane), technical (Second Revision)

This standard prescribes the requirements and the methods of sampling and test for methylene chloride (dichloromethane), technical.

Dichloromethane (DCM, methylene chloride, or methylene bichloride) is an organochlorine compound with the formula CH_2Cl_2. Methylene chloride (dichloromethane) finds extensive use as a major component of non-flammable paint removers; in the manufacture of photographic films; solvent for alkaloids, bitumens, crude rubber, oils, resins, waxes and many organic compounds; as solvent mixtures for cellulose esters and ethers, textile and leather coatings, lacquers, fire-extinguishing compositions; refrigeration; local anesthetic in dentistry; as spotting agent; degreasing and dewaxing agent; in chemical syntheses; as a vapour pressure depressant in aerosols; and various other uses in the chemical industry.

Though least toxic of the chloromethane, methylene chloride is strongly narcotic causing dizziness and slight nausea. It is very dangerous to the eyes. In view of this and its great volatility, care should be taken in its use. The place where methylene chloride is handled and stored should be well ventilated and it should not be brought in contact with hot surfaces and naked flame.

This standard was first published in 1968 and subsequently revised in 1979 and 2020. In the first revision the requirements for acidity were modified for the industrial grade of the material. Also another grade suitable for the manufacture of refrigerants was added and the methods of tests was modified suitably. In the second revision, requirement of purity has been specified and distillation range has been made optional for grade 1. Alternate method for heavy metal has been added and test method for impurity has been modified. Amendment No. 1 and 2 have also been incorporated.

GRADES

The material have two grades, namely:

a) Grade 1 — for the use in photo film industry, and

b) Grade 2 — suitable for industrial and other applications.