Oxychloride or Sorel Cement. A mixture of finely ground caustic calcined magnesite and magnesium chloride known as oxychloride or Sorel cement has been used extensively in recent years as sanitary flooring, stucco, artificial marble, tile roofing, and other structural material. The use of magnesite for this purpose is based on the fact that when wet with a solution of magnesium chloride of a certain concentration it sets as a hard vitreous cement. As a flooring, this material when properly mixed and laid is much superior to any other variety of cement. It can be coloured, takes a good polish, is waterproof and fireproof, and does not pulverize to dust. Certain practical difficulties have been encountered, however, in procuring a raw material of uniform quality and in consequence the floors have not always been satisfactory. In practice it is generally customary to add certain materials such as wood, serpentine, talc, ground quartz, asbestos, and other substances to the mixture as filler, the resultant mixture being sold under a great variety of trade names such as artificial marble, asbestolith, asbestos floors, compolite, compostone, kellastone marbeloid, monolith, petrified wood, sanitary floors, scagliola, stonewood, tileine, and velvetile.

Manufacture of Wood Pulp by the Sulphite Process. Considerable amounts of magnesite are consumed in the manufacture of chemically prepared wood pulp, for use in the manufacture of paper. The preparation of wood pulp by this process consists in boiling the wood with a chemical reagent which will serve as a disintegrating agent. For this purpose either sulphurous acid or calcium or magnesium bisulphite are generally used. The magnesium bisulphite is generally preferred, however, because of its greater stability and because of its greater solvent action on wood resins.

Manufacture of Carbon Dioxide. Considerable quantities of carbon dioxide were formerly manufactured from magnesite, but limestone or coke is now generally used for this purpose. Carbon dioxide is manufactured from crude magnesite by calcination and the recovery, purification, and compression of the carbon dioxide gas evolved, the residual caustic magnesia being sold as a by-product. In practice it has been found, however, that in order to obtain the most efficient results in the manufacture of carbon dioxide the crude magnesite has to be calcined at a lower temperature than that required to produce caustic calcined magnesite, that is, the residue contained too much carbon dioxide. On this account the use of magnesite for the manufacture of carbon dioxide is decreasing.

Since the calcination of the crude magnesite effects a reduction in weight of nearly 50 per cent it has been generally found to be more economical to calcine the magnesite at the mine and reduce the cost of shipment, and usually no attempt is made to save the carbon dioxide in this operation.