

Introduction

The nitration of chlorobenzene by mixed acid results in the formation of a mixture of three isomers namely para(65%), ortho(34%) and meta(1%) nitrochlorobenzene.

Para-nitochlorobenzene is used principally in the production of intermediates for azo and Sulphur dyes. Other uses include pharmaceuticals, rubber chemicals, photochemical and insecticides. Typical intermediates manufactured from the para isomer are p-nitro aniline, p-amino phenol, p-nitro phenol, 2-chloro paraanisidine, and paraanisidine.

U.S. production of mononitrochlorobezenes is ca 90,000 metric tons per year of which ca 30,000 t is the ortho isomer and 60,000 t is the para isomer. The meta isomer is not isolated in U.S. production. The bulk, fob prices of o-nitrochlorobenzene and p-nitrochlorobenzene are \$3.33/kg and \$3.125/kg, respectively. The mononitrochlorobezenes are manufactured by E.I. du Pont de Nemours & Company, Inc. and Monsanto Chemical Co.