A PROCESS FOR PREPARING POLYISOCYANATES BY THE ADIABATIC PHOSGENATION OF PRIMARY AMINES

ABSTRACT OF THE DISCLOSURE

A two-stage process for the preparation of organic isocyanates by reacting primary amines with phosgene in which

a) in a first stage, amine and phosgene are reacted in an adiabatically managed reaction, in which the temperature of reaction is restricted to values between 100 and 220°C by actively adjusting the absolute pressure in the reactor to values between 8 and 50 bar by decompression, and the temperature is held at values between 100 and 220°C until the stoichiometric conversion of phosgene has reached at least 80 %, and then

b) in a second stage, the reaction mixture from a) is decompressed to an absolute pressure of 1 to 15 bar and the reaction mixture is reacted further at temperatures between 90 and 240°C, optionally with the introduction of heat.