

INTRODUCTION

1.1 GENERAL:

Amino alcohols have been prepared industrially since the 1930s. However large-scale production started only after 1945. In industries amino alcohols are usually designated as alkanolamines. Ethanolamines are the important compounds in this group.

ETHANOL AMINES:

Monoethanolamine (MEA), diethanolamine (DEA) and triethanolamine (TEA) can be regarded as derivatives of ammonia in which one two or three hydrogen atoms have been replaced by $-\text{CH}_2-\text{CH}_2-\text{OH}$ group.

Ethanolamines were prepared in 1860 by Wurtz from ethylene chlorohydrin and aqueous ammonia. It was only toward the end of the 19th century that an ethanolamine mixture was separated into its mono, di and triethanolamine components. It was achieved by fractional distillation.

Ethanol amine were not available commercially before 1930's; they assumed steadily growing commercial importance as intermediates only after 1945, because of the large scale production of ethylene oxide. Since the mid-1970's production of very pure, colorless ethanolamine in industrial quantities has been possible. All the ethanol amine now be obtained economically in very pure form.

The most important use of ethanolamines is in production of emulsifiers, detergent raw materials and textile chemicals; in gas purification processes and in cement production, as milling additives. Monoethanolamine is an important feedstock for the production of ethyleldiamines and ethylenimines.