

CHAPTER-1

INTRODUCTION

2-Ethylhexanol is a valuable intermediate product for the chemical industry.

2-EH (2-Ethyl -1- hexanol).

The Molecular Formula is: $C_8H_{18}O$

Molecular weight: 130.23.

2-Ethylhexanol ranks after the lighter alcohols (methanol to butanol) as the most important synthetic alcohol.

Approximately 2×10^6 tons/ annum of 2-Ethylhexanol are produced world wide.

2-Ethylhexanol finds application in a variety of plasticizers and is also used in the synthesis of specialty chemicals. This alcohol contains one primary hydroxyl group, which is terminally located.

2-EH is used in the production dioctyl phthalate(DOP) other plasticizers, coatings, adhesives and specialty chemicals. In these end use areas, it contributes significantly to many high performance characteristics such as flexibility, good adhesion, lower emissions and fuel performance improvement.

The production of 2-ethylhexanol has recorded a growth rate of 2.5% per year from 1986 to 2000.

The future of 2-EH is tied to the strength in phthalates, DOP, the largest volume phthalate ester, is expected to remain flat or decline slightly due to competition from other phthalates & environmental pressures. Substitutions by non-phthalates in niche markets & the challenge of metallocene plastomers are viewed as possible future threats. Modest growth is projected for 2-Ethylhexanol based intermediates for acrylic surface coatings, diesel fuel & lube additives.