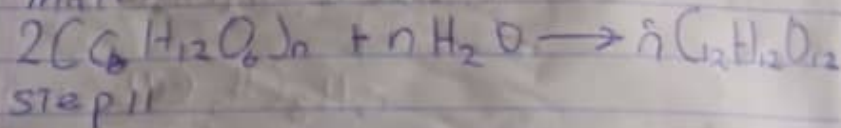


3-Butylethanol-3-ol

3. Carbohydrates such as starch are major group of natural compounds that can be made to yield ethanol by the biological process of fermentation.

Step I

The starch containing materials include molasses, potatoes, cereals, rice and on warming with malt to 60°C for a specific period of time are converted into maltose by the enzyme diastase contained in the malt.



Step II

(ii) Products obtained in the reduction of Alkanal and allanone.

Aldehyde and ketones are reduced to primary and secondary alcohols respectively by reacting with hydrogen in the presence of a platinum or nickel catalyst or with aluminium isopropoxide or with complex metal hydride, such as lithium tetrahydridoaluminate LiAlH_4 or sodium tetrahydridoborate.

(iii)

