PROCESS FOR THE PRODUCTION OF BUTADIENE

ABSTRACT

Processes are provided for the production of butadiene from C_4 containing feed stocks that contain isobutene and/or isobutane in addition to n-butene(s) and/or n-butane. The processes of the present invention generally comprise feeding the feed stock to a combination butenes isomerization reaction and distillation tower for conversion of 1-butene to 2-butenes and separation from isobutene and isobutane, followed by an oxydehydrogenation unit to convert n-butenes to butadiene. The processes may also include additional isomerization and/or dehydrogenation steps for the tower overhead and bottoms streams to create additional isobutene and/or n-butenes for valued uses, which may include additional production of butadiene. The feed to the system may comprise any mixture or separate feeding of C_4 olefins and C_4 paraffins, at least one of which contains isobutene and/or isobutane.

(FIG. 1)