

A process has been proposed for soda preparation, mainly of heavy, without heat loss with vapor, which is liberated by the calcination of sodium bicarbonate and by the dehydration of soda monohydrate and the heat by the gas pressure  $\text{CO}_2$ , without product recycle. The process consists in that raw sodium bicarbonate is dehydrated under pressure of gas-vapor mixture, forming humid soda and monohydrate, pushed and loosened by pressure drop of separated vapor, in screw delivery conduit, permeated by heating pipes, the dry monohydrate is dried out and dehydrated at  $160^\circ\text{C}$  with the preparation of heavy soda. The heat of liberated vapor is used for the evaporation of pure condensate, and the produced in such a way pure vapor is mixed with boiler vapor  $p \sim 3.6 \text{ MPa}$  and used as heat carrier in vapor calcinator for decarbonization, crystallization, dehydration.