

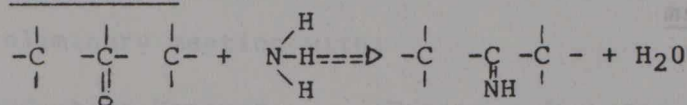
(b) Production of MIPA

(b.1) Raw materials

- . Acetone (Rhodia Paulinea/SP)
- . Ammonia (Nitrofértil/BA)
- . Hydrogen (CQR/BA)

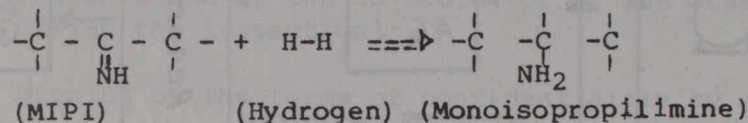
(b.2) Chemical reactions

Reaction 1:



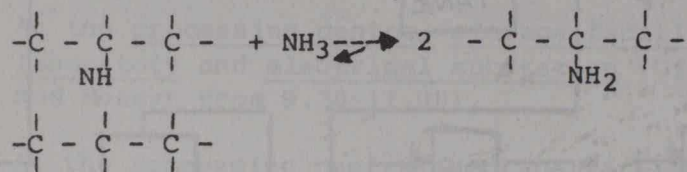
(Acetone) (Ammonia) (Monoisopropilimine-MIPI)

Reaction 2:



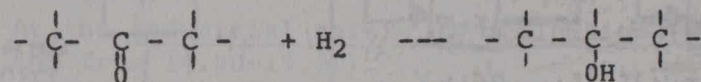
(MIPI) (Hydrogen) (Monoisopropilimine)

Reaction 3



(Diisopropilimine) (Ammonia) (Monoisopropilimine)

Reaction 4:



(Acetone) (Hydrogen) (Isopropanol)

(b.3) Brief description of the process

The acetone originating from tank-2 is pumped to the suction distributing pumps of the Hydrogenation Reactor (R-1).

The ammonia stored in tank V-37 (as well as that recovered in column C-2) is sent to the distribution pumps of Reactor (R-1).

These currents will then pass through a static blender (AG-1) where a partial reaction of imination takes place (Reaction-1), the mixture is then relayed to the Hydrogenation Reactor (R-1) where the resulting imine will be hydrogenated to the corresponding amine.