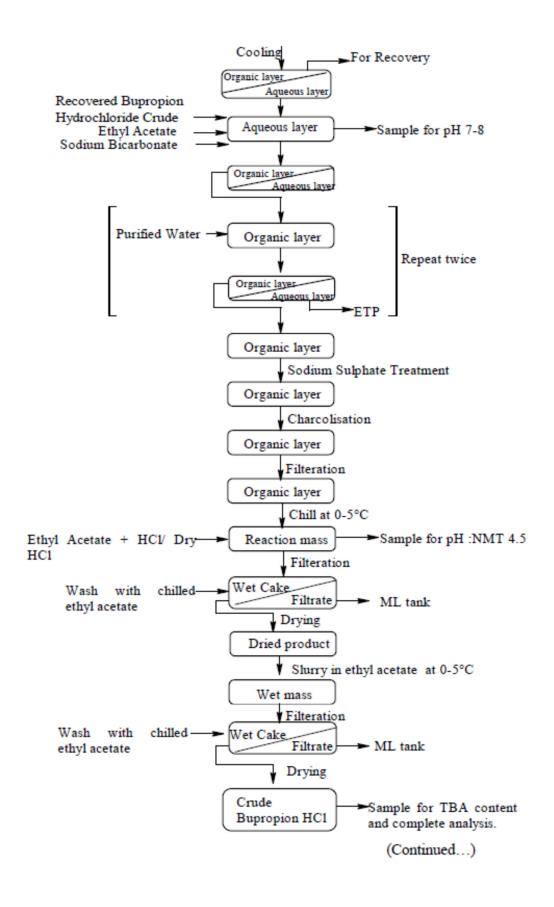


## Manufacturing Process Flowchart - Bupropion Hydrochloride, USP (Catalog No. B1237)

Bromine solution in Methylene Chloride 3-Chloro Propionphenone Reactor Methylene Chloride Maintaining at 30-35°C Reaction mass ➤Sample for GC Purified water Reaction mass Sodium Metabisulphite Aqueous layer queous layer Organic laye Distill methylene out chloride Organic layer Oily mass DF(Acetonitrile) ➤ Sample for GC Cooling Reaction mass Maintaining at 35-40°C Reaction mass ►Sample for GC Ethyl Acetate Reaction mass Purified Water Organic layer Aqueous layer -ETP Purified Water Organic layer Repeat twice rganic layer -ETP Organic layer Purified Water + HCL (1:1)-

Step I: Manufacture of Bupropion Hydrochloride crude





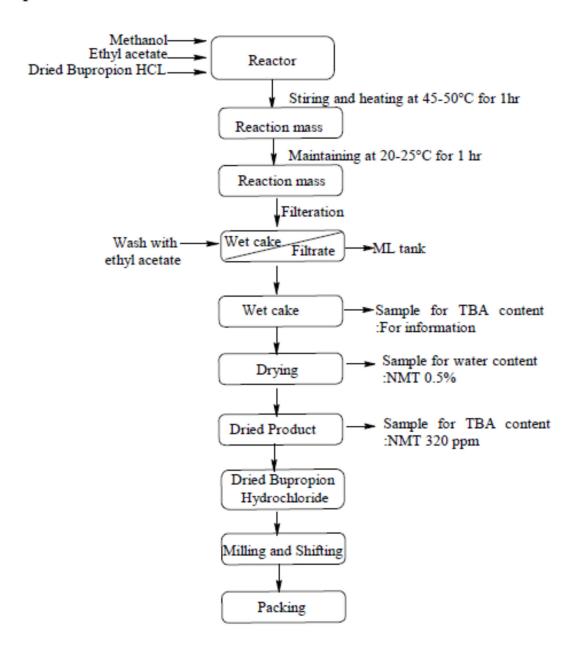


Methanol Reactor Crude Bupropion-Hydrochloride Heating and maintaining at 60-68°C Reaction mass Filteration Filtrate Reflux Slowly add ethyl Reaction mass acetate Precipitation Ethyl acetate -Reaction mass Stir at 25-30°for 2 hrs Filteration Repeat once Wash with Wet cake ML tank Filtrate \* Filtrate collected for Bupropion Ethyl acetate Hydrochloride crude recovery Wet cake ►Sample for TBA content :for information ►Sample for water content Drying :NMT 0.5% Sample for \*TBA content Dried Product :NMT 320 ppm and residual Solvents by HS-GC\*\* Dried Bupropion Hydrochloride Milling & Shifting Packing

Step II: Manufacture of Bupropion Hydrochloride

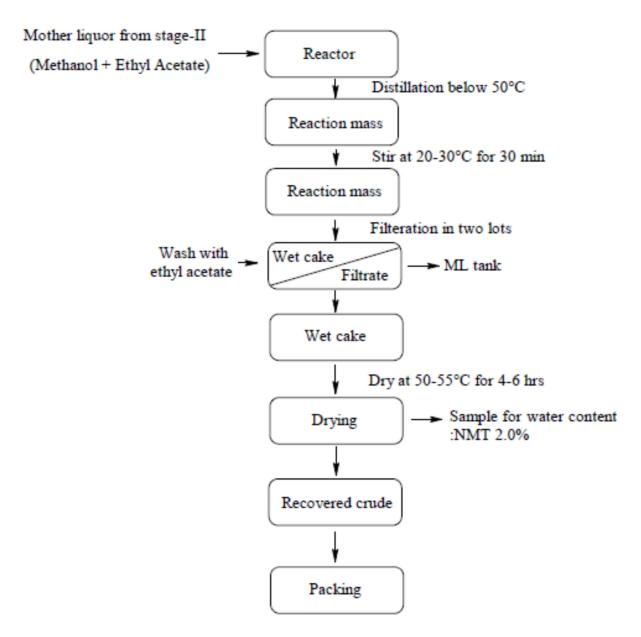


- \*\*If result of residual solvents by HSGC is not within limit, then re-dry the product.
- \*If result of TBA content is not within limit, then follow the following operations.





## \*Recovery of Bupropion Hydrochloride Crude from mother liquor:



This recovered Bupropion HCl crude material is used in the manufacturing process of Bupropion HCl Crude i.e. in stage-I.