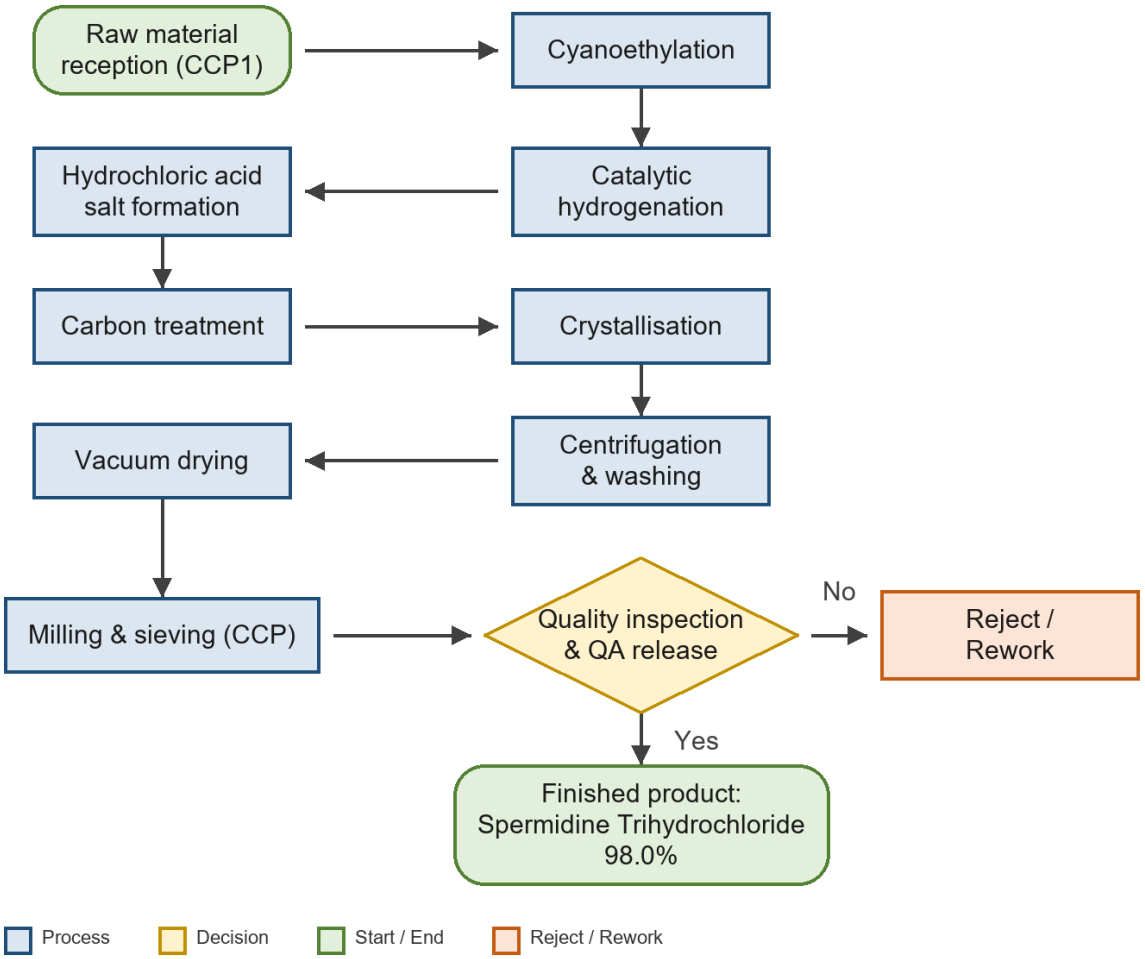
Chengdu PNP Biotech Co., Ltd.
No. 13, South Section 1, Second Ring Road
Suite 709, Wuhou District, Chengdu
Sichuan 610041, P.R. China
info@pnpbiotech.com
www.pnpbiotech.com

PROCESS FLOW CHART

Spermidine Trihydrochloride 98.0%

Spermidine Trihydrochloride 98.0% is manufactured by chemical synthesis. The diamine backbone is extended by cyanoethylation, the nitrile is reduced by catalytic hydrogenation, and the triamine is converted to the trihydrochloride salt with hydrochloric acid. The salt solution is treated with activated carbon, crystallised, centrifuged, washed, vacuum dried, milled and sieved before quality inspection and QA release.



The process is operated under a HACCP-based food-safety plan and GMP; critical control points include raw-material acceptance (CCP1), the in-process checks marked on the chart, and the final quality inspection and QA release. Off-spec material is rejected or reworked.

Prepared by: Mia Yu Approved by: Charlie Wang Date: Nov. 04, 2026