Azelaic and Pelargonic Acid

1. Worked in coordination with Nicolas Piramal, Chennai team to get the process investigation done.
2. Helped Chennai to develop the analytical method for their process trials.
3. Found / sourced Ozone generation unit manufacturer / vendor for lab and Pilot plant.
4. Ordered a lab unit / trained one chemist for operation of the same.
5. Understo0d the implication of Ozone on environment, took utmost precaution before actual start of work.
6. Developed and standardized the processes and that deliver the desired output at taloja.
7. The process was further taken up for safety studies at Ciba GVTech, Mulund.
8. Interacted with the team to arrive at a safe process. Consultant input was taken when conducting the reaction safety trial at Ciba GVTech.
9. Scale up done in Lab at 1Kg input level.
10. Process with the preferred choice was taken up for Pilot plant design stage due to its simplicity.
11. Suggested option of hiring the ozonator, where-in, we can deliver the product from a small pilot set up.
12. Identified problems with the extraction system. The present batch extraction is not suitable for Pilot continuous extraction system was the choice for which the related solubility data time duration output was generated. Handling losses are more in batch process.
13. Suggested sparkler filter for the filtration process for the removal of inorganics formed during quenching of batch.
14. Suggested sodium sulfite treatment to take care of peroxide, which ensure safe work up process.
15. Presently working on Pleargonic acid with 99%+ purity with better output. The concern on cheap substitute for petroleum.
16. Stability study in progress. All data documented and filed.
17. Establishing the shelf life for the same.
18. Process is at present being investigated for its commercial performance – initiated talks with Piramal once again.