

Solid State Chemistry.

Advancing Pharmaceutical Innovations with Solid State Chemistry at Magle Chemoswed

Executive Summary

At Magle Chemoswed, we lead in Contract Development and Manufacturing Organization (CDMO) services by leveraging solid state chemistry to transform pharmaceutical products. This service paper outlines how our solid state chemistry analysis underpins drug formulation, stability, and efficacy, demonstrating our indispensable role in pharmaceutical development.

Introduction

Solid state chemistry is vital within the pharmaceutical industry, affecting drug manufacturability to patient safety. At Magle Chemoswed, we offer comprehensive services from early-stage development to commercialisation, positioning ourselves as the partner of choice for pharmaceutical innovations.



Importance of Solid State Chemistry

- **Enhanced Bioavailability:** Our techniques refine the solid state properties of drugs to improve dissolution rates, directly boosting bioavailability.
- **Improved Stability:** We effectively manage polymorphs and amorphous forms to enhance the physical and chemical stability of pharmaceutical compounds.
- **Optimized Manufacturing:** Our solid state characterisation facilitates the development of robust manufacturing processes, essential for consistent quality across batches.
- **Patent Protection and Market Exclusivity:** Our development of novel solid forms secures extended patent protections and market exclusivity, providing a competitive edge.

Magle Chemoswed's Solid State Chemistry Services

- **Comprehensive Screening and Selection:** We conduct extensive polymorph, salt, and co-crystal screening, optimising for stability, manufacturability, and intellectual property advantages.
- **Advanced Physical Characterisation:** We employ techniques such as X-ray Powder Diffraction (XRPD), Differential Scanning Calorimetry (DSC), and Thermogravimetric Analysis (TGA).
- **Rigorous Chemical Stability Testing:** We implement stress testing under ICH guidelines, photostability testing, and compatibility studies.

Conclusion

At Magle Chemoswed, integrating solid state chemistry into pharmaceutical development ensures that our partners achieve superior product performance and compliance, with a significant competitive advantage in the market.

