


ASYMMETRIC HYDROGENATION

We extensively address the specific needs of the pharmaceutical, food, cosmetics, agrochemicals and specialty chemicals industries with our capabilities in Transition Metal Catalysis (TMC) as applied to asymmetric hydrogenation.

Complex active pharmaceutical ingredients (API's) are often stereochemically demanding: use of modern synthetic methods such as TMC are key for cost effective and timely manufacturing. The CDMO division of KD Pharma is well equipped for the realization of your TMC projects.



Defined by you.
Scale-up by us.™



Benefits of Transition Metal Catalysis for Asymmetric Hydrogenation:



- Synthesis of complex molecules
- Cost efficient multistep synthesis
- Mild reaction conditions
- Short cuts in synthesis routes
- Functional group tolerance
- High selectivity / high yield
- Direct access to enantiopure compounds



Transition Metal Catalysis

KD Pharma is well equipped for Asymmetric Hydrogenation scale-up:

- | | | |
|--------------|-------------|------------------|
| • R&D Lab | 0.2 L to 1L | 64 Bar / 928 psi |
| • Pilot | 400 L | 64 Bar / 928 psi |
| • Production | 4'000 L | 64 Bar / 928 psi |

Example: Asymmetric Hydrogenation of Ketone

- One chemical step
- One recrystallization step
- Overall yield 71%



Let's discuss your specific manufacturing challenges today!

Contact us at: CDMO@kdpharmagroup.com

