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## Cryogenic Reactions

Facilitating specific chemical transformations with Cryogenics

Cryogenic conditions help facilitate precise chemical transformations that need very cold conditions. Reactions carried out under such conditions help limit impurities, minimise unwanted side reactions and regulate the volatility of the products to ensure overall process safety till the transformation is completed.

Sai Life Sciences has over two decades of experience in handling highly reactive compounds while improving reaction selectivity at lab, pilot and plant scale.



### Highlights

- Over 20 years of experience across lab, pilot and plant scale
- Handled cryogenic complex chemistry with various organometallic reagents
- Processed starting material at a scale of 3 to 14 kg in temperatures ranging from -40° to -100°C

### Capabilities and infrastructure

- PLC automated cryogenic reactor with a single fluid system
- Cryo temperatures achieved by liquid nitrogen

- Capabilities across Lab Pilot → Plant
  - Lab – 1 to 500 gm
  - Pilot – 3 to 10 kg
  - Plant – 25 to 500 kg
- Equipment
  - Pilot scale: 100L and 250L Hastelloy vessel
  - Plant scale: 4 KL, 2.5 KL and 5 KL up to -100°C

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