THE CORETEC GROUP

Product Data Sheet

Coretec Cyclohexasilane™

6x The Silicon For Superior Performance

Product Description

Coretec Cyclohexasilane (Si_6H_{12}) is a higher order silane that is transported and stored as a liquid and can be processed as a liquid or gas.

Applications

Coretec Cyclohexasilane is ideal for applications where purity, safety, fast deposition rate and low-temperature deposition of silicon and/or doped silicon (C, Ge, B, Co and P) are important, such as:

- Li-ion Battery
- Atomic Layer Deposition, PECVD, CVD, and plasma-based processes
- Silicon Quantum Dots
- Solar
- Printed Electronics

Application sell sheets are available upon request.

Features & Benefits

- Liquid Transport and Storage
- Non-Explosive
- Fast Deposition Rate
- Long Shelf Life
- Low Temperature Transformation
- Process as a Liquid or Gas

Technical Properties

Property	Typical Value
Apperance	Clear colorless liquid
Melting Point	18° C
Flammability	In air
Storage Time	2 Years at 0° C
Thermal Stability	100° C for 12 hours
H Loss	Rapid above 220° C
Vapor Pressure	<0.2 Torr at 20° C

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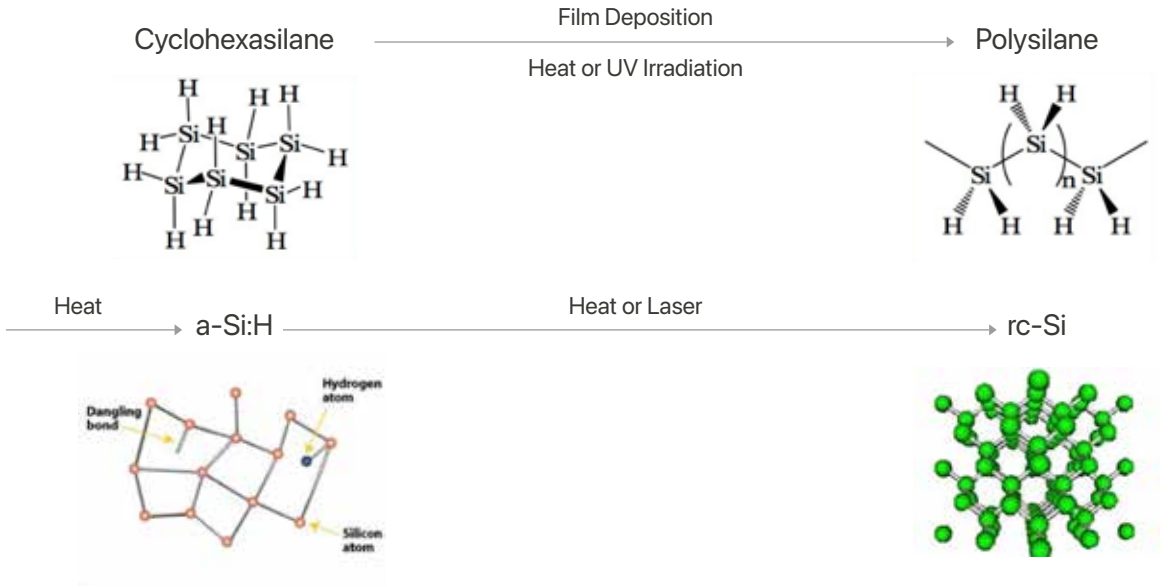
Transformation Of Cyclohexasilane ((CHS) / : Si_6H_{12})



Examples of Cyclohexasilane in Applications of Use

- Solution based synthesis of crystalline silicon from liquid silane through laser and chemical annealing
  (DOI/10.1021/qm300334p)*
- Aerosol assisted atmospheric pressure chemical vapor deposition silicon thin film
  (DOI/10.106/j.tdf.2015.05.069)*
- Low temperature colloidal synthesis of silicon nanorods
  (DOI/10.1021/acschemmater5b02487)*
- Synthesis of silicon quantum dots
  (DOI/10.1039/c6tc01435f)*
- Silicon nanoscrystals with band gap emission
  (DOI/10.1021/acsnano.9b09614)*

*publication available upon request

Storage and Shelf Life

Shelf life is two years at 0°C when stored under nitrogen.

Safety

Before handling, read the product Material Safety Data Sheet (MSDS), which is available upon request.

Notice

The information contained herein represents product knowledge at time of publication and is intended to serve as guidance on potential product development only. It is not a guarantee or warranty of product use, safety, or suitability for specific applications.

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