

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 AND BENEFITS:

- Liquid transport and storage
- Non-explosive
- Fast deposition rate
- Long shelf life
- Low temperature transformation
- Process as a liquid or gas

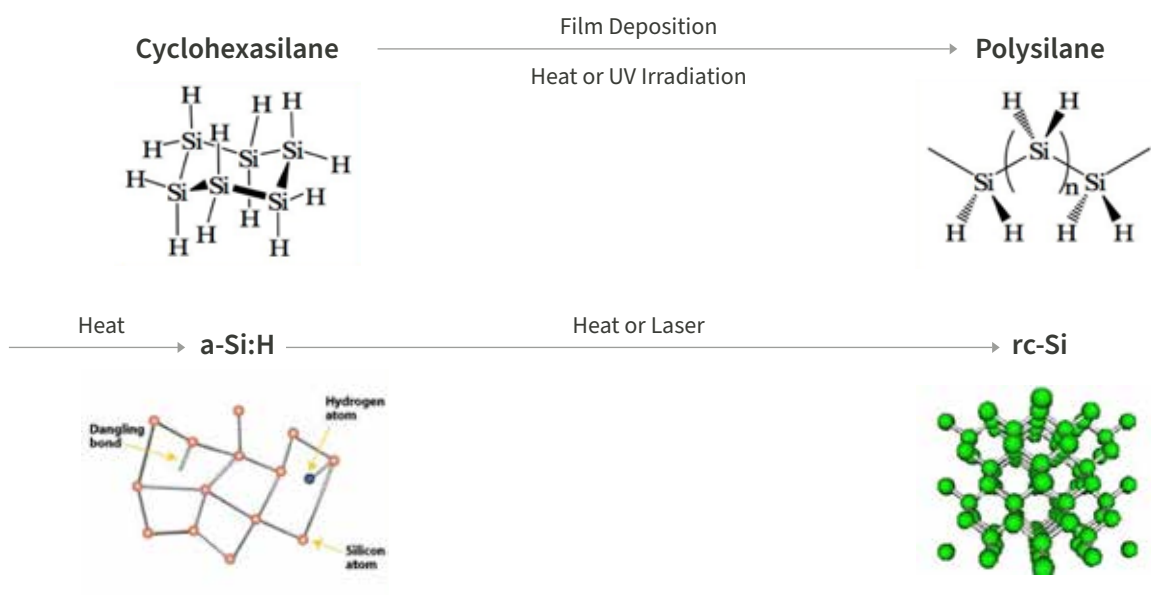
TECHNICAL PROPERTIES:

Property	Typical Value
Appearance	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

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TRANSFORMATION OF CYCLOHEXASILANE ((CHS) / : Si₆H₁₂):



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/acschemmater.5b02487)*
- Synthesis of silicon quantum dots (DOI/10.1039/c6tc01435f)*
- Silicon nanocrystals 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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