

Product Data Sheet



Coretec® HexaSilane™

6x the silicon for superior performance.

Description:

Coretec® HexaSilane™ is a cyclohexasilane (Si_6H_{12}) that is transported and stored as a liquid and can be processed as a liquid or gas.

Applications:

Coretec HexaSilane 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
- Printable Electronics
- Solar

Application sell sheets are available upon request.

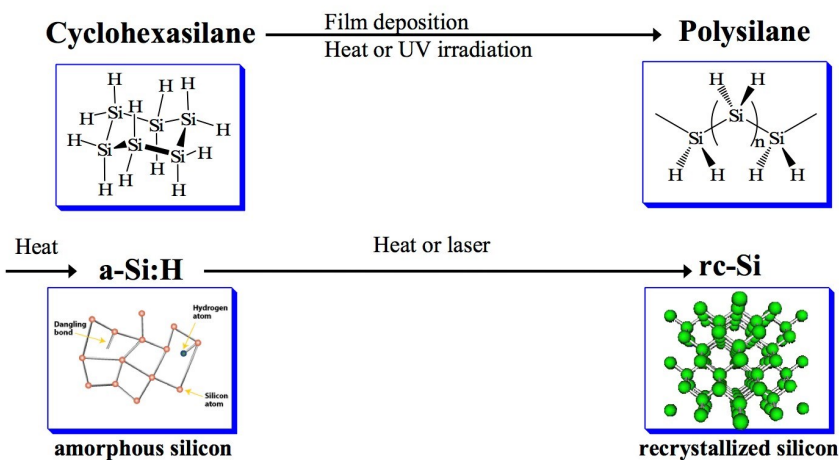
Features and Benefits:

- 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
Vapor Pressure	<0.2 at 20°C

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 nano rods (DOI/10.1021/acschemmater5b02487)*
- Synthesis of silicon quantum dots (DOI/10.1039/c6tc01435f)*

*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.

Contact:

The Coretec Group, Inc.

6804 South Canton Avenue, Suite 150
Tulsa, Oklahoma 74136

+1 (918) 494-0509

www.thecoretecgroup.com