1. **TCS Synthesis**

Feedstock is metallurgical grade silicon (Mg-Si) that is made from crushed and refined silica rock. In the trichlorosilane (TCS) gas synthesis process, Mg-Si is reacted with anhydrous hydrogen chloride (AHCl) at high temperatures to produce TCS. This gas is cooled and the trichlorosilane is collected in liquid form.

2. **TCS Distillation**

The trichlorosilane produced is repeatedly distilled to remove impurities. The result is high quality TCS of 99.9999999% purity.

3. **Polysilicon Production**

The purified TCS is mixed with pure hydrogen gas and sent to the CVD reactors. The gas mixture is heated inside the CVD to +1150°C leaving very fine crystalline deposits on the surface of thin silicon U shaped rods. These crystal deposits are high purity polysilicon. Waste gases are condensed and sent back to distillation to be re-purified, recycled and reused.

4. **Product Finishing**

The polysilicon produced in the CVD reactors is crushed into chunks or cut to a special lengths depending on the requirements of the customer. The product is then etched, sorted, inspected, packaged, and shipped to customers across the world.

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**Polysilicon Process Overview**

[Diagram showing the process flow]

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