Catalog # 93-7506 Rhenium(V) chloride (99.9%-Re)

$ReCl_5$

Thermal Behavior:
- Melting point: 220 °C [2]
- TGA data available in supporting information of [5]

Technical Notes:
1. Halide precursor for the deposition of **rhenium containing** thin films by CVD and ALD with high volatility and high thermal stability.

Target Deposit	Deposition Technique	Delivery Temperature	Pressure	Co-reactants	Deposition Temperature	Ref.
Re	ALD	110 °C	4-8 Torr	NH_3	400-500 °C	[4]
Re	CVI	67-220 °C	380-760 Torr		674-1050 °C	[1]
Re	CVD	133-400 °C	758 Torr		1000-1300 °C	[3]
ReN_x	ALD	110 °C	4-8 Torr	NH_3	250-400 °C	[4]
ReS_2	ALD	110 °C	8 Torr	H_2S	120-500 °C	[5]

References:
1. Chem. Vap. Deposition, **2003**, *9*, 59.
2. Chem-Asian J. **2008**, *3*, 1568.
3. Surf. Coat. Tech., **2015**, *265*, 38.
4. Angew. Chem. Int. Ed., **2018**, *57*, 14538.
5. Adv. Mater., **2018**, *30*, 1703622.