



>>Entry Name: Lead(II) selenide (PbSe), 9CI

CAS Registry Number: 12069-00-0

Extra CAS Registry Numbers(s): 37320-80-2

PbSe

Molecular Formula: PbSe

Molecular Weight: 286.16

Accurate Mass: 287.893147

Percentage Composition: Pb 72.41%; Se 27.59%

Source/Synthesis: Prepd. from Pb + Se at 1200-1250°

Use/Importance: Semiconductor

Physical Description: Grey

Melting Point: Mp 1065°

Solubility: Insol. H₂O

Aldrich: 25423-1

>>Variant: Mineral-form

Synonym(s): Clausthalite

CAS Registry Number: 1314-90-5

Molecular Formula: PbSe

Molecular Weight: 286.16

Accurate Mass: 287.893147

Percentage Composition: Pb 72.41%; Se 27.59%

Source/Synthesis: Found in Canada, Bolivia, Sweden, Spain, China and USA

Physical Description: Bright lead grey with faint bluish tint; massive fine-grained, sometimes foliated cryst.

References:

Dana's System of Mineralogy, 7th Ed., Wiley, New York, 1951, **1**, 204, (*mineral*)

Weinberg, I., *J. Chem. Phys.*, 1962, **36**, 1112, (*Pb-207 nmr*)

Kulifay, S.M. *et al.*, *J. Inorg. Nucl. Chem.*, 1963, **25**, 75, (*synth*)

Marino, C.P. *et al.*, *J. Mol. Spectrosc.*, 1974, **51**, 160, (*ir*)

Koch, W. *et al.*, *Z. Phys. A*, 1978, **289**, 17, (*Se-77 nmr*)

Yellin, N. *et al.*, *Mater. Res. Bull.*, 1983, **18**, 823, (*synth*)