



>>Entry Name: Zinc sulfide (ZnS)

CAS Registry Number: 1314-98-3

Related CAS Registry Numbers(s): 12173-92-1
ZnS

Molecular Formula: SZn

Molecular Weight: 97.456

Accurate Mass: 95.901215

Percentage Composition: S 32.90%; Zn 67.10%

Source/Synthesis: Occurs naturally

Use/Importance: Pigment

Physical Description: Light-sensitive white solid

Melting Point: Mp 1800-1900°

Boiling Point: Subl. *ca.*° 1200

Solubility: Sol. H₂O (0.0007 g per 100 cm³ at 19°)

Other Data: Phosphoresces after exposure to light. Turns grey in uv light. Wurtzite-zinc blende conversion found in nanoparticles

Aldrich: 33327-1

Fluka: 96510

Sigma: Z1125

>>Variant: Cubic-form

Synonym(s): Sphalerite. Zinc blende

CAS Registry Number: 12169-28-7

Molecular Formula: SZn

Molecular Weight: 97.456

Accurate Mass: 95.901215

Percentage Composition: S 32.90%; Zn 67.10%

Source/Synthesis: The most abundant zinc mineral, often assoc. with galena and other sulfides; var. include *Cleiothane* and *Mameatite*

>>Variant: Hexagonal-form

Synonym(s): Wurtzite

CAS Registry Number: 12138-06-6

Molecular Formula: SZn

Molecular Weight: 97.456

Accurate Mass: 95.901215

Percentage Composition: S 32.90%; Zn 67.10%

Source/Synthesis: Mineral found assoc. with sphalerite

Physical Description: Brownish cryst.

Other Data: Various other less studied forms known, e.g. γ -form which is obt. as the mineral Matraite; a high temp. form has conversion temp. of 900°

References: