



>>Entry Name: Nickel phosphides

CAS Registry Number: 12035-46-0

Molecular Formula: NiP

Molecular Weight: 89.664

Accurate Mass: 88.909108

Percentage Composition: Ni 65.46%; P 34.54%

Source/Synthesis: Synth. from Ni + P

>>Variant: Nickel phosphide (Ni₃P)

CAS Registry Number: 12059-19-7

Molecular Formula: Ni₃P

Molecular Weight: 207.044

Accurate Mass: 204.7798

Percentage Composition: Ni 85.04%; P 14.96%

>>Variant: Nickel phosphide (Ni₅P₂)

CAS Registry Number: 11103-55-2

Molecular Formula: Ni₅P₂

Molecular Weight: 355.398

Accurate Mass: 351.624254

Percentage Composition: Ni 82.57%; P 17.43%

Physical Description: Cryst. needles or tablets

Melting Point: Mp 1185°

>>Variant: Nickel phosphide (Ni₂P)

CAS Registry Number: 12035-64-2

Molecular Formula: Ni₂P

Molecular Weight: 148.354

Accurate Mass: 146.844454

Percentage Composition: Ni 79.12%; P 20.88%

Use/Importance: Commercially available

Physical Description: Grey cryst.

Melting Point: Mp 1112°

Solubility: Sol. HNO₃, HF

Aldrich: 37264-1

>>Variant: Nickel phosphide (Ni₃P₂)

CAS Registry Number: 12137-11-0

Molecular Formula: Ni₃P₂

Molecular Weight: 238.018

Accurate Mass: 235.753562

Percentage Composition: Ni 73.97%; P 26.03%

Physical Description: Dark green to black cryst.

Solubility: Sol. HNO₃

>>Variant: Nickel phosphide (NiP₂)

CAS Registry Number: 12035-47-1

Molecular Formula: NiP₂

Molecular Weight: 120.637

Accurate Mass: 119.88287

Percentage Composition: Ni 48.65%; P 51.35%

>>Variant: Nickel phosphide (NiP₃)

CAS Registry Number: 12192-07-3

Molecular Formula: NiP₃

Molecular Weight: 151.611

Accurate Mass: 150.856632

Percentage Composition: Ni 38.71%; P 61.29%