Boiling Point: Bp 88°
Other Data: Unstable >78°
Hazard & Toxicity: Lachrymator

>>**Derivative:** Amide
Synonym(s): Benzenecarbothioamide, 9CI. Thiobenzamide

CAS Registry Number: 2227-79-4
Molecular Formula: C_7H_7NS
Molecular Weight: 137.205
Accurate Mass: 137.029919
Percentage Composition: C 61.28%; H 5.14%; N 10.21%; S 23.37%
Melting Point: Mp 116-117°

Aldrich: 14822-9
Fluka: 88491

>>**Derivative:** Hydrazide

CAS Registry Number: 20605-40-7

Molecular Formula: $C_7H_8N_2S$
Molecular Weight: 152.22
Accurate Mass: 152.040818
Percentage Composition: C 55.23%; H 5.30%; N 18.40%; S 21.07%
Use/Importance: Used as 0.01-0.02*M* soln. in EtOH for extraction-photometric detn. of Os (λ_{max} 385 nm, ε 13700), Re (λ_{max} 520 nm, ε 12400), Ru (λ_{max} 520 nm, ε 12000)
Physical Description: Cryst. (Et_2O/petrol)
Melting Point: Mp 68-70°
Solubility: Sol. H_2O, common org. solvs.

>>**Derivative:** Dimethylamide

Molecular Formula: $C_9H_{11}NS$
Molecular Weight: 165.259
Accurate Mass: 165.061219
Percentage Composition: C 65.41%; H 6.71%; N 8.48%; S 19.40%
Melting Point: Mp 67-68°

>>**Derivative:** Anilide
Synonym(s): *N*-Phenylbenzenecarbothioamide, 9CI. Thiobenzanilide, 8CI

CAS Registry Number: 636-04-4
Molecular Formula: $C_{13}H_{11}NS$
Molecular Weight: 213.303
Accurate Mass: 213.061219
Percentage Composition: C 73.20%; H 5.20%; N 6.57%; S 15.03%
Melting Point: Mp 101-103°

>>**Variant:** *SH*-form

Molecular Formula: C_7H_6OS
Molecular Weight: 138.19
Accurate Mass: 138.013935
Percentage Composition: C 60.84%; H 4.38%; O 11.58%; S 23.20%

>>**Derivative:** *S*-Me ester

CAS Registry Number: 5925-68-8
Molecular Formula: C_8H_8OS
Molecular Weight: 152.217
Accurate Mass: 152.029585
Percentage Composition: C 63.13%; H 5.30%; O 10.51%; S 21.07%
Physical Description: Yellow liq.
Boiling Point: Bp 210-212°
Rare Chemicals Library: S91805-9