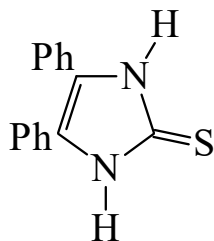




>>Entry Name: **1,3-Dihydro-4,5-diphenyl-2H-imidazole-2-thione**, 9CI

Synonym(s): 4,5-Diphenyl-2(3*H*)-imidazolethione. 2-Mercapto-4,5-diphenylglyoxaline. Diphenylthioglyoxalone. 4,5-Diphenylimidazole-2-thiol, 8CI



CAS Registry Number: 2349-58-8

Extra CAS Registry Numbers(s): 3718-54-5

Molecular Formula: C<sub>15</sub>H<sub>12</sub>N<sub>2</sub>S

Molecular Weight: 252.339

Accurate Mass: 252.072118

Percentage Composition: C 71.40%; H 4.79%; N 11.10%; S 12.71%

Use/Importance: Used as a 0.01*M* soln. in pentanol for extraction-photometric detn. of Pd ( $\lambda_{\text{max}}$  440 nm,  $\epsilon$  6500)

Physical Description: Cryst. (AcOH)

Melting Point: Mp 260°. Mp 325°

Solubility: Sol. H<sub>2</sub>O, EtOH

Aldrich: 12789-2

Fluka: 43085

>>Derivative: *N*-Me

CAS Registry Number: 16116-43-1

Molecular Formula: C<sub>16</sub>H<sub>14</sub>N<sub>2</sub>S

Molecular Weight: 266.366

Accurate Mass: 266.087768

Percentage Composition: C 72.15%; H 5.30%; N 10.52%; S 12.04%

Physical Description: Cryst. (EtOH)

Melting Point: Mp 279-281°

>>Derivative: Disulfide

Synonym(s): 2,2'-Dithiobis(4,5-diphenyl-1*H*-imidazole), 9CI

CAS Registry Number: 16116-44-2

Molecular Formula: C<sub>30</sub>H<sub>22</sub>N<sub>4</sub>S<sub>2</sub>

Molecular Weight: 502.663

Accurate Mass: 502.128586

Percentage Composition: C 71.68%; H 4.41%; N 11.15%; S 12.76%

Physical Description: Cryst.

Melting Point: Mp 222-225 dec.°

#### References:

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Willems, J.F. *et al.*, *Bull. Soc. Chim. Belg.*, 1961, **70**, 745-757, (*synth*)

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