



---

>>Entry Name: Tris(2,5-dimethylphenyl)phosphine, 9CI

CAS Registry Number: 115034-38-3

**Molecular Formula:** C<sub>24</sub>H<sub>27</sub>P

**Molecular Weight:** 346.451

**Accurate Mass:** 346.185037

**Percentage Composition:** C 83.20%; H 7.85%; P 8.94%

**Use/Importance:** Ligand for Co and Ni

**Physical Description:** Needles or cryst. (EtOH)

**Melting Point:** Mp 155° (148°)

>>Derivative: Methiodide

**Synonym(s):** Methyltris(2,5-dimethylphenyl)phosphonium iodide

**Molecular Formula:** C<sub>25</sub>H<sub>30</sub>IP

**Molecular Weight:** 488.39

**Accurate Mass:** 488.112985

**Percentage Composition:** C 61.48%; H 6.19%; I 25.98%; P 6.34%

**Melting Point:** Mp 169°

>>Derivative: Oxide

**Molecular Formula:** C<sub>24</sub>H<sub>27</sub>OP

**Molecular Weight:** 362.45

**Accurate Mass:** 362.179952

**Percentage Composition:** C 79.53%; H 7.51%; O 4.41%; P 8.55%

**Physical Description:** Solid

**Melting Point:** Mp 173°

>>Derivative: Sulfide

**Molecular Formula:** C<sub>24</sub>H<sub>27</sub>PS

**Molecular Weight:** 378.517

**Accurate Mass:** 378.157107

**Percentage Composition:** C 76.16%; H 7.19%; P 8.18%; S 8.47%

**Physical Description:** Solid

**Melting Point:** Mp 170°

#### References:

Michaelis, A., *Annalen*, 1901, **315**, 43, (*synth, derivs*)

Culcasi, M. *et al.*, *J.O.C.*, 1991, **56**, 3537, (*synth, pmr, P-31 nmr*)