

# Nonacarbonyl[ $\eta^3$ -(1,2-diphenylethyl)-phenylphosphinito]triosmium(2 Os-Os)

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The reaction of 1,2,3-triphenylphosphirene with  $[\text{H}_2\text{Os}_3(\text{CO})_{10}]$  leads to the title compound,  $[\text{Os}_3(\text{CO})_9\{(\text{C}_6\text{H}_5)_3\text{C}_2\text{PO}\}]$ , which displays an open  $\text{Os}_3(\text{CO})_9$  cluster [Os-Os 2.703 (1) and 2.867 (2) Å, and Os-Os-Os 124.24 (4)°]. This moiety is  $\eta^3, \eta^3$ -bonded to a phosphirene ligand with a cleaved P-C bond, PhC-C(Ph)-P. An O atom was incorporated into the molecule resulting in an unusual five-membered metallacycle, Os-C-C-P-O, with distances Os-C 2.10 (1), C-C 1.46 (2), C-P 1.76 (1), P-O 1.628 (9) and O-Os 2.136 (9) Å. This ring makes a dihedral angle of 57.3 (2)° with the plane of the metal atoms.