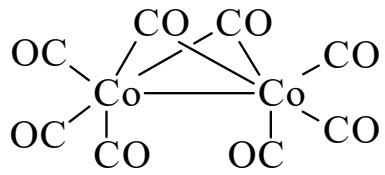
>>**Entry Name: Di-μ-carbonylhexacarbonyldicobalt,** 12Cl, 9Cl
**Synonym(s):** Octacarbonyldicobalt. Cobalt carbonyl ($Co_2(CO)_8$). Dicobalt octacarbonyl




**CAS Registry Number:** 10210-68-1

**Molecular Formula:** $C_8Co_2O_8$
**Molecular Weight:** 341.95
**Accurate Mass:** 341.825716
**Percentage Composition:** C 28.10%; Co 34.47%; O 37.43%
**General Statement:** In soln. nonbridged forms exist in equilib. with the bridged form shown and are favoured by increasing temp. Slowly loses CO at r.t. to give $Co_4(CO)_{12}$
**Source/Synthesis:** Synth. from $Co(OAc)_2$ + $H_2$/CO (1:4) at 200 atm. in $Ac_2O$ at 160-180° or from $CoI_2$ + Zn in $Bu^tOH$/toluene under 1 atm. CO
**Use/Importance:** Commercially available. Important hydroformylation catalyst. Also catalyses Pauson-Khand reaction, Fischer-Tropsch hydrogenation of CO, water gas shift reaction and the carboalkoxylation of alkyl halides and other compds. Synthetic intermed. for many CO compounds
**Physical Description:** Air-sensitive orange-red cryst.
**Melting Point:** Mp 51-52°
**Boiling Point:** $Subl._{0.1}$ 25°
**Solubility:** Insol. $H_2O$; sol. org. solvs.
**Hazard & Toxicity:** Highly toxic

**Fluka:** 60811

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