

MoCl₅

Properties: Molybdenum pentachloride is an inorganic compound with the chemical formula MoCl₅, a dark green solid whose solution or vapor is dark red. It is hygroscopic and reacts violently with water. Soluble in dry ether, ethanol and other anhydrous organic solvents.

Uses: Used as a chlorination catalyst; used in the preparation of organometallic compounds such as molybdenum hexacarbonyl.

· Identifier

Chemical Formula	MoCl ₅
CAS No.	10241-05-1
EINECS No.	233-575-3

· Physical and chemical properties

Molecular weight	273.2 g/mol	Flash point	/	Reactivity	Hygroscopic, reacts violently with water
Appearance	Dark green solid	Melting point	194℃	Solubility	Soluble in ethanol and other organic solvents
Density	2.928 g/cm ³	Boiling point	268℃	Storage	Cool and well ventilated

· Metal impurities

Impurities	Unit	Specification	Impurities	Unit	Specification
Ag	ppmw	≤0.1	Na	ppmw	≤0.1
Al	ppmw	≤5.0	Nb	ppmw	≤0.5
As	ppmw	≤0.1	Ni	ppmw	≤0.1
Ba	ppmw	≤0.1	Pb	ppmw	≤0.1
Be	ppmw	≤0.1	Sb	ppmw	≤0.1
Ca	ppmw	≤0.1	Sn	ppmw	≤0.1
Cd	ppmw	≤0.1	Sr	ppmw	≤0.1
Co	ppmw	≤0.5	Ti	ppmw	≤0.5
Cr	ppmw	≤0.1	V	ppmw	≤0.1
Cu	ppmw	≤0.1	W	ppmw	≤50.0
Fe	ppmw	≤5.0	Zn	ppmw	≤0.1
Hf	ppmw	≤0.5	Zr	ppmw	≤5.0
K	ppmw	≤0.1	Ga	ppmw	≤0.5
Li	ppmw	≤0.1	Ge	ppmw	≤0.5
Mg	ppmw	≤0.1	Tl	ppmw	≤0.5
Mn	ppmw	≤0.1			

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