

Name	MW	bp °C/mm (mp)	D ₄ ²⁰	n _D ²⁰
MOLYBDENUM				
Mo	Atomic number	Crystal form	Oxidation states	
	42	Body-centered cubic	0, 2, 3, 4, 5, 6	
	Atomic weight	Electrical resistivity (20°C)	Electronegativity, Pauling	
	95.94	5.0 μΩ·cm	1.8	
	CAS number	Enthalpy of melting	Specific heat (25°C)	
	7439-98-7	36.0 kJ/mol	0.060 cal/g K	
	Boiling point	Enthalpy of vaporization	Thermal conductivity (25°)	
	4,612°C	617 kJ/mol	138 W/(m K)	
Melting point	Ionization potential (spectral)			
2,617°C	7.099 eV (I)			
Specific gravity (20°C)	(aqueous)			
10.22	16.15 eV (II)			
		0.913 V (+6)		

COMPOUNDS

	AKM547 MOLYBDENYL DIETHYLDITHIOCARBAMATE C ₁₀ H ₂₀ MoN ₂ O ₂ S ₄	424.48	(103 dec)	
	Catalyst for direct episulfidation of <i>E</i> -cycloolefins with sulfur. ¹ 1. Adam, W. et al. <i>J. Chem. Soc., Chem. Commun.</i> 2001 , 1910. HYDROLYTIC SENSITIVITY: 4: no reaction with water under neutral conditions			
	[19680-83-2]	HMIS: 2-1-0-X	10g ¥16,500	50g ¥47,500
	SIM6594.8 MOLYBDENUM DISILICIDE, 99+% MoSi ₂ particle size: 5-10μ Reacts slowly with HF and HNO ₃ Thermal conductivity: 65 W/m°C Employed in plasma spray refractory coatings including spacecraft engines HYDROLYTIC SENSITIVITY: 4: no reaction with water under neutral conditions	152.13	(~1,930)	6.31
	[12136-78-6]	TSCA EC 235-231-8 HMIS: 2-2-0-X	シリコンカタログ参照	
	AKM548 MOLYBDENUM(V) ETHOXIDE, 90% DIMOLYBDENUM DECAETHOXIDE C ₁₀ H ₂₆ MoO ₅ Contains MoO(OEt) ₃ HYDROLYTIC SENSITIVITY: 7: reacts slowly with moisture/water	321.25		1.23
	[65756-25-4]	HMIS: 2-3-1-X	10g ¥35,500	
	INMO030 MOLYBDENUM HEXACARBONYL C ₆ MoO ₆	264.01	(150-1 dec)	1.96
	Solubility, ether: 16 g/l ΔHcomb: 507 kcal/mole Precursor for the deposition of molybdenum metal ΔHform: 233 kcal/mole Forms X-ray mirrors by alternating deposition with SiO ₂ by PECVD. ¹ 1. Hamelmann, F. et al. <i>Thin Solid Films</i> 2000 , 358, 90. F&F: Vol. 2, p 287; Vol. 3, p 206; Vol. 4, p 346; Vol. 9, p 317; Vol. 10, p 273; Vol. 11, p 350; Vol. 12, p 330; Vol. 13, p 194; Vol. 16, p. 226. HYDROLYTIC SENSITIVITY: 4: no reaction with water under neutral conditions			
	[13939-06-5]	TSCA EC 237-713-3 HMIS: 3-1-0-X	100g ¥57,000	
	AKM550 MOLYBDENUM(VI) OXIDE BIS(2,4-PENTANEDIONATE) MOLYBDENYL ACETYLACETONATE C ₁₀ H ₁₄ MoO ₆	326.17	(181 dec)	1.640
	Color: yellow-orange UV max: 352 nm Soluble: pentanedione, THF Slowly hydrolyzes on exposure to water, methanol, acetone, benzene With AlCl ₃ catalyzes metathesis of acetylenic hydrocarbons. ¹ Derivative employed in enantioselective epoxidation of allyl alcohol. ² Forms homogeneous catalyst system with Et ₃ Al yielding syndiotactic 1,2-butadienes. ³ 1. Bage, S. et al. <i>J. Mol. Catal.</i> 1990 , 59, 225. 2. Coleman, S. et al. <i>J. Organomet. Chem.</i> 1983 , 246, 53. 3. Nata, G. <i>J. Polym. Sci.</i> 1960 , 48, 219; Belg. Patent 549,554, 1959. HYDROLYTIC SENSITIVITY: 7: reacts slowly with moisture/water			
	[17524-05-9]	EC 241-522-0 HMIS: 2-1-1-X	10g ¥10,500	50g ¥28,500

