



>>Entry Name: Aluminium molybdenum oxide ($\text{Al}_2\text{Mo}_3\text{O}_{12}$)

Synonym(s): Aluminium molybdate ($\text{Al}_2(\text{MoO}_4)_3$)

CAS Registry Number: 15123-80-5

$\text{Al}_2(\text{MoO}_4)_3$

Molecular Formula: $\text{Al}_2\text{Mo}_3\text{O}_{12}$

Molecular Weight: 533.776

Accurate Mass: 539.618276

Percentage Composition: Al 10.11%; Mo 53.92%; O 35.97%

General Statement: Isostructural with $\text{Fe}_2(\text{MoO}_4)_3$ and $\text{Cr}_2(\text{MoO}_4)_3$. Monoclinic, interatomic distances, O-Al 188, ObMo 169.8-181.2 pm

Source/Synthesis: Prepd. by precipitation from Al salts and molybdic acid and subsequent calcining or from Al_2O_3 and MoO_3 in a Pt crucible at 700°

Use/Importance: Commercially available

Physical Description: White powder

Melting Point: Mp 940-965°

References:

Plyasova, L.M. *et al.*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, 1967, **3**, 906; *CA*, **69**, 55156k, (*synth*)

Harrison, W.T.A. *et al.*, *J. Solid State Chem.*, 1988, **76**, 328, (*cryst struct, nd*)