



---

>>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  $\text{Al}_2\text{O}_3$  and  $\text{MoO}_3$  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)