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>>Entry Name: Molybdate(VI) ( $\text{MoO}_4^{2(-)}$ )

**Related CAS Registry Numbers(s):** 12054-85-2  
 $[\text{MoO}_4]^{2(-)}$

**Molecular Formula:**  $\text{MoO}_4^{2(-)}$

**Molecular Weight:** 159.938

**Accurate Mass:** 161.885066

**Percentage Composition:** Mo 59.99%; O 40.01%

>>Derivative: Di-H compd.

>>Derivative: Di-Li salt

>>Derivative: Di-Na salt

>>Derivative: Di-K salt

>>Derivative: Di-Rb salt

>>Derivative: Di-Cs salt

>>Derivative: Mg salt

>>Derivative: Ca salt

>>Derivative: Sr salt

>>Derivative: Ba salt

>>Derivative: Di- $\text{NH}_4$  salt

**Synonym(s):** Ammonium molybdate(VI) ( $(\text{NH}_4)_2\text{MoO}_4$ )

**CAS Registry Number:** 13106-76-8

**Source/Synthesis:** Obt. by dissolving  $\text{MoO}_3$  in aq.  $\text{NH}_3$  soln. followed by cryst.

**Use/Importance:** Commercially available. Source of water-soluble molybdenum e.g. in the prep. of catalysts. Calcination produces  $\text{MoO}_3$  and  $\text{NH}_3$ . Used in fertiliser

**Physical Description:** White solid

**Solubility:** Sol.  $\text{H}_2\text{O}$

**Other Data:** Contains the  $[\text{MoO}_4]^{2(-)}$  ion. Monoclinic lattice, isomorphous with  $(\text{NH}_4)_2\text{CrO}_4$  and  $(\text{NH}_4)_2\text{SeO}_4$ . Dec. on heating. Loses  $\text{NH}_3$  on standing in air to form polymolybdates. Reacts with  $\text{H}_2\text{O}_2$  to give peroxymolybdates

**Aldrich:** 27790-8

**Supelco:** R40-0010

**References:**