



>>Entry Name: Rubidium oxide (Rb₂O), 8Cl

Synonym(s): Dirubidium oxide

CAS Registry Number: 18088-11-4

Rb₂O

Molecular Formula: ORb₂

Molecular Weight: 186.935

Accurate Mass: 185.818503

Percentage Composition: O 8.56%; Rb 91.44%

Source/Synthesis: Prepd. by reaction of stoichiometric quantities of Rb with a higher oxide (Rb₂O₂, RbO₂) under dry N₂

Use/Importance: A material with approx. empirical formula Rb₂O is commercially available; it is a mixture of oxides. Widely used as a catalyst

Physical Description: Moisture-sensitive pale yellow cubic cryst.

Other Data: Reacts with H₂O to form RbOH. $\Delta H_f^\circ -338 \text{ kJ mol}^{-1}$

Hazard & Toxicity: Corrosive

Aldrich: 30921-4

References:

Helms, A. *et al.*, *Z. Anorg. Allg. Chem.*, 1939, **242**, 33, (*cryst struct*)

Gmelin Handbook Inorg. Chem., Syst. No. 24, 1955, 105, (*rev, bibl*)