



>>Entry Name: Magnesium peroxide (MgO₂), 8Cl

Synonym(s): Magnesium dioxide. Magnesium perhydrol. Magnesium superoxol

CAS Registry Number: 14452-57-4

Extra CAS Registry Numbers(s): 1335-26-8

MgO₂

Molecular Formula: MgO₂

Molecular Weight: 56.304

Accurate Mass: 55.974872

Percentage Composition: Mg 43.17%; O 56.83%

Source/Synthesis: Conveniently obt. by slow pptn. from aq. solns. of H₂O₂, Mg(NO₃)₂ and NH₃/NH₄NO₃. Also formed in aq. solns. of H₂O₂ and Mg(OH)₂. Products dried by heating to 300° in pure O₂ (H₂O and CO₂ free). Anhyd. MgO₂ first obt. by reaction of Mg(NO₃)₂ with MO₂ (M = Na, K) in liq. NH₃. Manuf. by treatment of either MgCO₃ with 75% H₂O₂ or MgO with 30-70% H₂O₂. Not known in pure state. Commercial product contains up to 30% MgO₂, mixed with MgO, Mg(OH)₂ and MgCO₃

Use/Importance: Commercially available. Oxidn. catalyst, vulcanisation agent

Biological Use/Importance: Antiseptic. Antacid

Physical Description: Colourless cubic microcrystalline powder

Solubility: Spar. sol. H₂O

Other Data: Reacts with O₃ in Freon-12 at -100° to give Mg(O₂)₂. Dec. on heating to form MgO

Hazard & Toxicity: Strong oxidising agent, prob. eye, skin, mucous membrane irritant

References:

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