

Process for preparing high-purity magnesium hydroxide and magnesium oxide

Abstract

- 5 A process for preparing magnesium compounds by precipitation, in which
(1) an aqueous solution or suspension of a magnesium compound is mixed with a precipitant
selected from the group of base, oxine, inorganic phosphate and inorganic salt of carbonic acid,
and the corresponding magnesium compound is precipitated,
(2) the mixture from step (1) is optionally admixed with a flocculating aid,
- 10 (3) in the mixture of step (1) and optionally of step (2), the solids are separated from the liquid,
(4) optionally, the solids removed are mixed with water, in the presence or in the absence of a
flocculating aid,
(5) optionally, in the mixture of step (4), the solids are separated from the liquid,
(6) optionally, steps (4) and (5) are repeated once or more than once,
- 15 (7) and, optionally, the solids removed are dried, optionally after addition of further compounds,
wherein the aqueous solution or suspension of a magnesium compound is obtained in step (1)
(i) by reaction of an organomagnesium compound with an aldehyde or a ketone or another
electrophile and subsequent aqueous workup of the reaction mixture at a pH of at most 10 or (ii)
from a magnesium salt with a maximum calcium content and/or potassium content of 200 ppm,
- 20 based on the magnesium salt used.