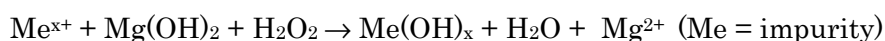


Brief Description of Manufacturing Process of Magnesium Sulfate Heptahydrate in Macco Organiques, s.r.o., Zahradní 46c, 792 01 Bruntál, Czech republic

The production process can be described by the following chemical reaction:



Magnesium sulfate dried is manufactured by leaching of magnesite (magnesium carbonate) in aqueous sulfuric acid. The cationic impurities are removed from raw aqueous solution of magnesium sulfate by oxidation with hydrogen peroxide and neutralisation with magnesium hydroxide. The purification step can be described by a following chemical reaction:



Product is obtained from filtered solution of magnesium sulfate by evaporation and crystallisation from mother liquors. Crystals of the product separated from mother liquors are dried.

Basic process steps

The manufacture represents a semi-continuous process consisting of following steps:

1. leaching
2. purification (oxidation and neutralisation)
3. filtration (impurity separation)
4. homogenisation
5. evaporation
6. crystallisation
7. separation of crystals
8. drying
9. packaging

Mother liquors after separation of crystals are collected and continual recycled back to the purification step.

Flow chart of the process

