

# Identification test of magnesium hydroxide

## THEORY-

Magnesium hydroxide  $Mg(OH)_2$  is also can be called as milk of magnesia which is a suspension having a min a max of 8.5% w/w of mag hydroxide in purified water. The milk of magnesia contains some preservatives called as cream of magnesium hydroxide mixture.

The identification tests are prescribed by pharmacopoeias to check the quality of the drugs, pharmaceutical reagents required for the test. The principle of these tests are based upon the reactions of ions or radicals inorganic or organic reagent. Single compound or a mixture of compounds can undergo these tests.

**Aim:** Aim of the experiment is to do the identification test of magnesium hydroxide.

## REQUIREMENTS-

**Sample:** Magnesium Sulphate (15g)

**Chemicals:** Distilled water,  
Dilute ammonia solution,  
Ammonium chloride (2M),  
Disodium hydrogen phosphate (0.25M)

**Apparatus:** Test tube,  
Test tube holder,  
Spatula

## PROCEDURE-

Substance to be examined was taken 15g and dissolved in 2ml of water, addition of 1ml of dilute ammonia solution to make the solution alkaline and it was redissolved with 1ml of 2M ammonium chloride. Then, 1ml of 0.25M disodium hydrogen phosphate was added and left untouched to be observed.

## CONCLUSION-

Upon addition of ammonia solution a white precipitate of magnesium hydroxide is formed which confirms the presence of magnesium ion and the precipitate dissolves upon addition of 2M of ammonium chloride solution which proves for the identification test of magnesium hydroxide.

## REFERENCES-

1. Chatwal GR. Pharmaceutical inorganic chemistry (vol- 1); 2016.
2. Indian pharmacopoeia; 2016.
3. Kasture, Wadodkar. Practical Pharmaceutical Chemistry- 1; Nirali publication.