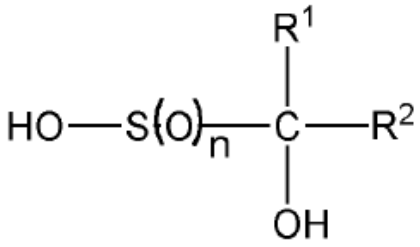
CLAIMS

1. A mixed magnesium-zinc-salt or a mixed aluminium-zinc-salt or a mixed calcium-zinc- salt of the sulfinic acid of formula (I)



wherein

R^1 is H or C_1-C_6 alkyl,

R^2 is COOH, SO_3H or $CH(OH)S(O)_n$-OH,

n is 1 and

wherein the acid forms an anion and the counterions are magnesium and zinc ions or aluminium and zinc ions or calcium and zinc ions.

2. The magnesium-zinc-salt of claim 1 , wherein the counterions comprise 40 to 60 mole % magnesium ions and 40 to 60 mole% zinc ions or 45 to 55 mole% magnesium ions and 45 to 55 mole% zinc ions.

3. The aluminium-zinc-salt of claim 1 , wherein the counterions comprise 25 to 60 mole % aluminium ions and 40 to 75 mole% zinc ions or 30 to 50 mole% aluminium ions and 50 to 70 mole% zinc ions.

4. The salt of any one of the preceding claims, wherein R^1 is H.

5. The salt of any one of the preceding claims, wherein R^2 is COOH.

6. The salt of any one of the preceding claims, additionally containing a mixed magnesium-zinc-salt or a mixed aluminium-zinc-salt or a mixed calcium-zinc-salt of the sulfonic acid of formula (I) wherein n is 2.

7. The salt of claim 6, which comprises the sulfinic acid salt and the sulfonic acid salt in a weight ratio of 3:1 to 1:5.

8. The salt of claim 7, which comprises the mixed magnesium-zinc-salt of the sulfinic acid and the mixed magnesium-zinc-salt of the sulfonic acid in a weight ratio of 2:1 to 1 :3.

9. The salt of claim 7, which comprises the mixed aluminium-zinc-salt of the sulfinic acid and the mixed aluminium-zinc-salt of the sulfonic acid in a weight ratio of 1 :1 to 1 :2.

10. The salt of any one of claims 6 to 9, which comprises less than 2 wt% of magnesium-zinc-sulfite or aluminium-zinc-sulfite.

11. A method for obtaining salt as defined in any one of claims 6 to 10 comprising adjusting the pH of an aqueous solution of glyoxylic acid to 3 to 4 by reacting it with magnesium hydroxide or aluminum hydroxide or calcium hydroxide, reacting the obtained magnesium or aluminium or calcium salt of glyoxylic acid with zinc dithionite and adjusting the pH to 4.5 to 6.

12. The use of the salts as defined in any one of claims 1 to 10 as reducing agent, in particular as reducing agent in emulsion polymerizations and preferably as reducing agent in the post-polymerization of emulsion polymerizations.

13. A composition comprising a salt of any one of claims 1 to 10 and additional reducing agents, conventional additives and/or auxiliaries.