Claims

Claim 1

A method for treating waste water comprising a step of adding and reacting to the waste water, wherein the waste water containing boron trifluoride neutralized salt is generated as a side-product during a preparation process of polybutene, a treating agent selected from a group of Al compound, Ca compound and mixture thereof at temperature of 50 to 300℃, whereby boron trifluoride neutralized salt is decomposed to form Al salt or Ca salt of fluorine component so that the fluorine component is removed in the form of the Al salt or the Ca salt of fluorine component;

and a step of adding a treating agent selected from a group consisting of Ca compound, Al compound and mixture thereof to the waste water at a temperature of 0 to 40℃ after the step of removing boron trifluoride neutralized salt, so that insoluble salt of remaining fluorine is removed.

Claim 2

he method as claimed in Claim 1, wherein the Al compound is one selected from a group consisting of aluminum phosphate($AlPO_4$), aluminum sulfate($Al_2(SO4)_3$), aluminum hydroxide($Al(OH)_3$), and mixture thereof, and the Ca compound is one selected from a group consisting of calcium chloride($CaCl_2$), calcium hydroxide($Ca(OH)_2$), calcium sulfate($CaSO_4$), calcium phosphate($Ca_3(PO_4)_2$), and mixture thereof.

Claim 3

The method as claimed in Claim 1, wherein the amount of the treating agent is 1 to 2 equivalent weight, with respect to the fluorine component contained in the waste water.

Claim 4

The method as claimed in Claim 1, further comprising a step of adding Ca compound to the waste water at a temperature of 0 to 40℃ before the step of removing boron trifluoride neutralized salt, so that the fluoride is converted into insoluble salt of calcium fluoride(CaF_2) and then removed.