CLAIMS

[Claim 1]

A process for producing an octadiene comprising the steps of:

continuously adding 2,7-octadienyl formate into a reaction system in which a mixture of a palladium compound, a tertiary organophosphorus compound and a solvent is present; and

subjecting the 2,7-octadienyl formate to reaction while continuously distilling off a reaction product containing the resulting octadiene out of the reaction system.

[Claim 2]

A process for producing an octadiene comprising the steps of:

continuously adding 2,7-octadienyl formate into a reaction system in which a mixture of a palladium compound, a tertiary organophosphorus compound, a tertiary amine and a solvent is present; and

subjecting the 2,7-octadienyl formate to reaction while continuously distilling off a reaction product containing the resulting octadiene out of the reaction system.

[Claim 3]

The process for producing an octadiene according to claim 2, wherein the tertiary amine is used in an amount of from 0.0001 to 95% by mass on the basis of a total amount of the mixture of the palladium compound, the tertiary organophosphorus compound, the tertiary amine and the solvent which is present in the reaction system.

[Claim 4]

The process for producing an octadiene according to claim 2 or 3, wherein the tertiary amine has a boiling point higher than that of the octadiene as measured under atmospheric pressure.

[Claim 5]

The process for producing an octadiene according to any one of claims 1 to 4, wherein the tertiary organophosphorus compound is used in an amount of from 4 to 10,000 times by mol, on the basis of a palladium atom contained in

the palladium compound.

[Claim 6]

The process for producing an octadiene according to any one of claims 1 to 5, wherein the solvent has a boiling point higher than that of the octadiene as measured under atmospheric pressure.

[Claim 7]

The process for producing an octadiene according to claim 6, wherein the solvent used in the process is an ether-based solvent.

Claims

[Claim 1]

A process for producing an octadiene comprising the steps of:

continuously adding 2,7-octadienyl formate into a reaction system in which a mixture of a palladium compound, a tertiary organophosphorus compound, a tertiary amine and a solvent is present; and

subjecting the 2,7-octadienyl formate to reaction while continuously distilling off a reaction product containing the resulting octadiene out of the reaction system.

[Claim 2]

The process for producing an octadiene according to claim 1, wherein the tertiary amine is used in an amount of from 0.0001 to 95% by mass on the basis of a total amount of the mixture of the palladium compound, the tertiary organophosphorus compound, the tertiary amine and the solvent which is present in the reaction system.

[Claim 3]

The process for producing an octadiene according to claim 1 or 2, wherein the tertiary amine has a boiling point higher than that of the octadiene as measured under atmospheric pressure.

[Claim 4]

The process for producing an octadiene according to any one of claims 1 to 3, wherein the tertiary organophosphorus compound is used in an amount of from 4 to 10,000 times by mol, on the basis of a palladium atom contained in the palladium compound.

[Claim 5]

The process for producing an octadiene according to any one of claims 1

to 4, wherein the solvent has a boiling point higher than that of the octadiene as measured under atmospheric pressure.

[Claim 6]

The process for producing an octadiene according to claim 5, wherein the solvent used in the process is an ether-based solvent.