[CLAIMS]

[Claim 1]

A petroleum-based aromatic-containing oil,

wherein a ratio of saturated components by a clay-gel method is 40% by mass or less,

a ratio of bicyclic aromatic components fractionated by HPLC is 10% by mass or more and 30% by mass or less with respect to 100% by mass of aromatic components by the clay-gel method,

a ratio of monocyclic aromatic components fractionated by HPLC is 48% by mass or more and 64% by mass or less with respect to 100% by mass of aromatic components by the clay-gel method,

a ratio of aromatic components having three or more rings fractionated by HPLC is 10% by mass or more and 28% by mass or less with respect to 100% by mass of aromatic components by the clay-gel method,

a content of benzo(a)pyrene is 1 mass ppm or less, and

a total content of the following specific polycyclic aromatic hydrocarbons 1) to 8) is 10 mass ppm or less:

1) benzo(a)pyrene;

2) benzo(e)pyrene;

3) benzo(a)anthracene;

4) chrysene;

5) benzo(b)fluoranthene;

6) benzo(j)fluoranthene;

7) benzo(k)fluoranthene; and

8) dibenzo(a,h)anthracene.

[Claim 2]

The petroleum-based aromatic-containing oil according to Claim 1, wherein said ratio of saturated components by the clay-gel method is 20% by mass or more.

[Claim 3]

The petroleum-based aromatic-containing oil according to Claim 1 or 2, wherein said ratio of bicyclic aromatic components fractionated by HPLC is 28% by mass or less with respect to 100% by mass of said aromatic components by the clay-gel method.

[Claim 4]

The petroleum-based aromatic-containing oil according to any one of Claims 1 to 3, wherein said ratio of saturated components by the clay-gel method is 35% by mass or less.

[Claim 5]

The petroleum-based aromatic-containing oil according to any one of Claims 1 to 4, wherein said ratio of bicyclic aromatic components fractionated by HPLC is 20% by mass or more with respect to 100% by mass of said aromatic components by the clay-gel method.

[Claim 6]

The petroleum-based aromatic-containing oil according to any one of Claims 1 to 5, wherein said ratio of saturated components by the clay-gel method is 30% by mass or less.

[Claim 7]

The petroleum-based aromatic-containing oil according to any one of Claims 1 to 6, wherein said ratio of bicyclic aromatic components fractionated by HPLC is 25% by mass or less with respect to 100% by mass of said aromatic components by the clay-gel method.

[Claim 8]

The petroleum-based aromatic-containing oil according to any one of Claims 1 to 7, wherein said ratio of bicyclic aromatic component fractionated by HPLC is 24.5% by mass or less with respect to 100% by mass of said aromatic components by the clay-gel method.

[Claim 9]

The petroleum-based aromatic-containing oil according to any one of Claims 1 to 8, which is an extender oil or process oil used by mixing with a rubber.

[Claim 10]

A rubber composition comprising the petroleum-based aromatic-containing oil according to any one of Claims 1 to 9 and a rubber.

[Claim 11]

A tire comprising the petroleum-based aromatic-containing oil according to any one of Claims 1 to 9.

[Claim 12]

A method for producing the tire according to Claim 11, which comprises blending and vulcanizing a rubber and the petroleum-based aromatic-containing oil according to any one of Claims 1 to 9.