What is claimed is:

1. Vinyl acetate having a ratio of carbon-14 to total carbon of 1.0×10^{-14} or more, formed by reaction of ethylene and acetic acid, wherein at least a part of the ethylene is derived from biomass, and the remaining part of the ethylene is derived from fossil fuel.

2. The vinyl acetate as claimed in claim 1, having a carbon stable isotope ratio of −20‰ or more.

3. The vinyl acetate as claimed in claim 1, having a carbon stable isotope ratio of less than −20‰.

4. The vinyl acetate as claimed in any one of claims 1 to 3, containing a sulfur component in an amount of more than 0 ppm and 100 ppm or less.

5. The vinyl acetate as claimed in claim 4, wherein the sulfur component is dimethylsulfide or dimethylsulfoxide.

6. The vinyl acetate as claimed in any one of claims 1 to 5, containing an acetate ester in an amount of 10 ppm to 1,500 ppm.

7. The vinyl acetate as claimed in claim 6, wherein the acetate ester is at least one of methyl acetate and ethyl acetate.

8. The vinyl acetate as claimed in any one of claims 1 to 7, containing a polymerization inhibitor in an amount of more than 0 ppm and 100 ppm or less.

9. The vinyl acetate as claimed in any one of claims 1 to 8, containing at least one compound selected from a polyvalent carboxylic acid, a hydroxycarboxylic acid and a hydroxylactone-based compound in an amount of 1 ppm to 500 ppm.

10. The vinyl acetate as claimed in any one of claims 1 to 9, containing acetaldehyde dimethylacetal in an amount of 0.001 to 10 parts by mass.

11. A vinyl acetate polymer containing the vinyl acetate as claimed in any one of claims 1 to 10 as a monomer unit.

12. A vinyl alcohol polymer obtained by saponifying the vinyl

acetate polymer as claimed in claim 11.

13. The vinyl alcohol polymer as claimed in claim 12, further containing ethylene units in a content of 1 mol% or more and 60 mol% or less.

14. The vinyl alcohol polymer as claimed in claim 12 or 13, having a degree of saponification of 80 mol% or more.

15. The vinyl alcohol polymer as claimed in any one of claims 12 to 14, having a viscosity-average polymerization degree of 200 or more and 5,000 or less.

16. The vinyl alcohol polymer as claimed in any one of claims 12 to 15, wherein a content of 1, 2-glycol bond is in the range of 0.2 mol% or more and 2 mol% or less.

17. The vinyl alcohol polymer as claimed in any one of claims 12 to 16, wherein a ratio of carbon-14 to total carbon is 1.0×10^{-14} or more.

18. The vinyl alcohol polymer as claimed in any one of claims 12 to 17, having a carbon stable isotope ratio of –20‰ or more.

19. The vinyl alcohol polymer as claimed in any one of claims 12 to 17, having a carbon stable isotope ratio of less than –20‰.

20. The vinyl alcohol polymer as claimed in any one of claims 12 to 19, containing a sulfur component in an amount of more than 0 ppm and 100 ppm or less.

21. The vinyl alcohol polymer as clamed in claim 20, wherein the sulfur component is dimethylsulfide or dimethylsulfoxide.

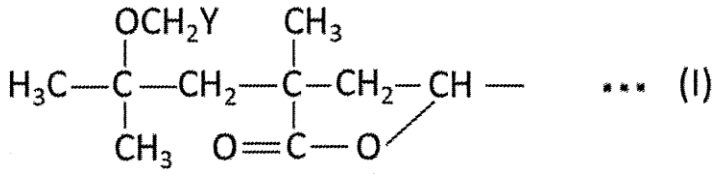
22. The vinyl alcohol polymer as claimed in any one of claims 12 to 21, wherein a content of ethylene units is in the range of 1 mol% or more and 15 mol% or less, and a degree of saponification is in the range of 85 mol% or more and 99.9 mol% or less, and

wherein the vinyl alcohol polymer has a propyl group at a terminal end thereof and a content of the propyl group with respect to total monomer units is in the range of 0.0005 mol% or more and 0.1 mol% or less.

23. The vinyl alcohol polymer as claimed in any one of claims 12 to 22, wherein the vinyl alcohol polymer has an alkoxy group at a terminal end thereof and a content of the alkoxy group with respect to total monomer units is in the range of 0.0005 mol% or more and 1 mol% or less.

24. The vinyl alcohol polymer as claimed in any one of claims 12 to 23, wherein the vinyl alcohol polymer has a following structure (I) and structure (II) at a terminal end thereof and a total content of the structure (I) and the structure (II) with respect to total monomer units constituting the vinyl alcohol polymer is in the range of 0.001 mol% or more and 0.1 mol% or less.

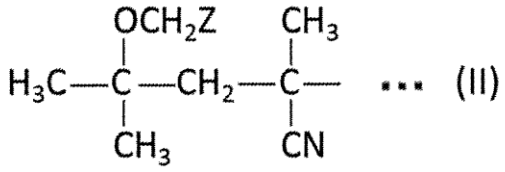
[Formula 1]



... (I)

where Y is a hydrogen atom or a methyl group.

[Formula 2]



... (II)

where Z is a hydrogen atom or a methyl group.

25. The vinyl alcohol polymer as claimed in claim 24, wherein a content of ethylene units is in the range of 1 mol% or more and 15 mol% or less, and a degree of saponification is in the range of 85 mol% or more and 99.9 mol% or less, and

wherein a molar ratio R [I/(I+II)] of the structure (I) to a total of the structure (I) and the structure (II) satisfies a following formula (1).

$$R<0.92-Et/100 \quad (1)$$

where Et is the content of the ethylene units (mol%).

26. The vinyl alcohol polymer as claimed in any one of claims 13, 22 and 25, wherein a block character of ethylene units is in the range of 0.90 to 0.99.

27. The vinyl alcohol polymer as claimed in claim 24 or 25, wherein a content of ethylene units is in the range of 15 mol% or more and 60 mol% or less, and a degree of saponification is in the range of 85 mol% or more and 99.9 mol% or less, and

wherein a total content of the structure (I) and the structure (II) with respect to total monomer units constituting the vinyl alcohol polymer is in the range of 0.002 mol% or more and 0.02 mol% or less, and a molar ratio R [I/(I+II)] of the structure (I) to a total of the structure (I) and the structure (II) satisfies a following formula (2) expressed using the content of the ethylene units Et in the vinyl alcohol polymer.

$$0.8<R+Et/100 \quad (2)$$

28. A method for tracing a polymer using vinyl acetate having a ratio of carbon-14 to total carbon of 1.0×10^{-14} or more, wherein the vinyl acetate is formed by reaction of ethylene and acetic acid, wherein at least a part of the ethylene is derived from biomass, and the remaining part of the ethylene is derived from fossil fuel.

29. The method for tracing a polymer using vinyl acetate as claimed in claim 28, wherein a carbon stable isotope ratio of the vinyl acetate is −20‰ or more.

30. The method for tracing a polymer using vinyl acetate as claimed in claim 28, wherein a carbon stable isotope ratio of the vinyl acetate is less than −20‰.

31. A method for tracing a polymer using a vinyl acetate polymer containing the vinyl acetate as claimed in any one of claims 28 to 30 as a monomer unit.

32. A method for tracing a polymer using a vinyl alcohol polymer obtained by saponifying the vinyl acetate polymer as claimed in claim 31.