11. The composition of any one of the preceding claims, wherein the composition comprises 0.1 wppm to 10 wppm of cyclohexanol, based upon the total weight of the composition.

12. The composition of any one of the preceding claims, wherein the composition comprises at least 99.5 wt% cyclohexanone, based upon the total weight of the composition.

13. The composition of any one of the preceding claims, wherein the composition comprises at least 99.90 wt% cyclohexanone, based upon the total weight of the composition.

14. The composition of any one of the preceding claims, wherein the composition comprises at least 99.99 wt% cyclohexanone, based upon the total weight of the composition.

15. The composition of any one of the preceding claims, wherein the combined amount of cyclohexanedione and hydroxycyclohexanone that is present in the composition accounts for at least 1 wt % of the total amount of contaminants present in the composition.

16. The composition of any one of the preceding claims, wherein at least 95% of the cyclohexanedione, hydroxycyclohexanone and cyclohexanol that is present in the composition was not added from an external source.

~~17. The composition of any one of the preceding claims, wherein any cyclohexanedione, hydroxycyclohexanone and cyclohexanol that are present in the composition were produced during one or more of:~~

~~(i) hydroalkylating benzene to produce cyclohexylbenzene;~~

~~(ii) oxidizing at least a portion of the cyclohexylbenzene to produce cyclohexylbenzene hydroperoxide; and~~

~~(iii) cleaving at least a portion of the cyclohexylbenzene hydroperoxide to form phenol and cyclohexanone.~~

~~18.~~17. The composition of any one of the preceding claims, wherein the composition comprises 0.1 wppm to 1000 wppm water as determined according to DIN 51777 / Part 1, based upon the total weight of the composition.

~~19.~~18. The composition of any one of the preceding claims, wherein the composition comprises 0.1 wppm to 100 wppm of at least one of cyclohexenone, hexanal and methylcyclopentanone, based upon the total weight of the composition.

~~20.~~19. The composition of any one of the preceding claims, wherein the composition comprises 0.1 wppm to 10 wppm of at least one of cyclohexenone, hexanal and methylcyclopentanone, based upon the total weight of the composition.

~~21.~~20. The composition of any one of the preceding claims, wherein at least a portion of the composition is used to make adipic acid, cyclohexanone resin, cyclohexanone oxime, caprolactam or nylon.

~~22.~~21. The composition of any one of the preceding claims, wherein the composition comprises less than 1 wppm of each of methylcyclopentenone, methylcyclopentenal, cyclohexenone, cyclohexenol, phenol, butylcyclohexylether, pentylcyclohexane, cyclohexyl acetate, pentanal, valeric acid, and butyric acid.

~~23.~~22. The composition of any one of the preceding claims, wherein the composition comprises no ~~measurable concentration of each of~~ methylcyclopentenone, methylcyclopentenal, cyclohexenone, cyclohexenol, phenol, butylcyclohexylether, pentylcyclohexane, cyclohexyl acetate, pentanal, valeric acid, and butyric acid.

~~24.~~23. The composition of any one of the preceding claims having a density at 20°C of 0.946 +/- 0.002 g/cm^3.

~~25.~~24. ~~A~~ The composition according to claim 1, wherein the composition ~~comprising:~~ comprises

~~(a) at least 99 wt% cyclohexanone;~~

~~(b)~~ 0.1 wppm to 100 wppm of cyclohexanol; and

~~(c)~~ 0.1 wppm to 10 wppm of at least one of cyclohexanedione and hydroxycyclohexanone, wherein the wt% and wppm are based upon the total weight of the composition, and wherein the combined amount of cyclohexanol, cyclohexanedione and hydroxycyclohexanone accounts for at least 20 wt% of the total amount of contaminants present in the composition.