CLAIMS

1. A composition comprising:

   a. at least ~~10~~ 95 wt% of cyclohexylbenzene;

   b. ~~1~~ 10 wppm to 1 wt% of ~~bicyclohexane~~ methylcyclopentylbenzene; and

   c. at least one of:

      i. 1 wppm to 1 wt% of biphenyl; and

      ~~d.~~ii. 1 wppm to ~~2~~ 1 wt% of ~~methylcyclopentylbenzene~~ bicyclohexane,

   wherein the wt%s and wppms are based upon total weight of the composition.

2. The composition of claim 1, wherein the composition ~~is a feed~~ comprises both

   i. 1 wppm to 1 wt% of biphenyl; and

   ii. 1 wppm to 1 wt% of bicyclohexane.

3. The composition of claim 1 or claim 2, wherein the composition comprises 10 wppm to 8000 wppm of bicyclohexane.

4. The composition of any one of the preceding claims, wherein the composition comprises 10 wppm to 8000 wppm of biphenyl.

~~5. The composition of any one of the preceding claims, wherein the composition comprises 10 wppm to 1 wt% of methylcyclopentylbenzene.~~

~~6.~~5. The composition of any one of the preceding claims, wherein the composition comprises less than 1000 wppm of phenol, olefins or alkylene benzenes, individually or in any combination.

~~7.~~6. The composition of any one of the preceding claims, wherein the composition comprises less than 100 wppm of phenol, olefins or alkylene benzenes, individually or in any combination.

~~8.~~7. The composition of any one of the preceding claims, wherein the composition

comprises less than 100 wppm of cyclohexenyl benzene.

~~9. The composition of any one of the preceding claims, wherein the composition comprises at least 50 wt% of cyclohexylbenzene.~~

~~10. The composition of any one of the preceding claims, wherein the composition comprises at least 75 wt% of cyclohexylbenzene.~~

~~11.~~8. The composition of any one of the preceding claims, wherein the composition comprises at least 99 wt% of cyclohexylbenzene.

~~12.~~9. At least one of phenol and cyclohexanone made from the composition of any one of the preceding claims.

10. The composition of any one of claims 1-8, wherein the composition is a feed.

~~13. A composition comprising:~~

~~(a) at least 50 wt% cyclohexylbenzene; and~~

~~(b) at least one of:~~

~~i. 1 wppm to 1 wt% bicyclohexane;~~

~~ii. 1 wppm to 1 wt% biphenyl; and~~

~~iii. 1 wppm to 2 wt% methylcyclopentylbenzene, wherein the wt%s and wppms are based upon total weight of the composition.~~

~~14. The composition of claim 13, wherein the composition comprises 10 wppm to 8000 wppm of of bicyclohexane.~~

~~15. The composition of claim 13 or claim 14, wherein the composition comprises 10 wppm to 8000 wppm of biphenyl.~~

~~16. The composition of any one of claims 13-15, wherein the composition comprises 10 wppm to 1 wt% of methylcyclopentylbenzene.~~

~~17. The composition of any one of claims 13-16, wherein the composition comprises less than 1000 wppm of phenol, olefins or alkylene benzenes.~~

~~18. The composition of any one of claims 13-17, wherein the composition comprises less than 100 wppm of phenol, olefins or alkylene benzenes.~~

~~19. The composition of any one of claims 13-18, wherein the composition comprises less than 100 wppm of cyclohexenyl benzene.~~

~~20. The composition of any one of claims 13-19, wherein the composition comprises at least 75 wt% of cyclohexylbenzene.~~

~~21. A composition comprising:~~

~~a. at least 75 wt% of cyclohexylbenzene;~~

~~b. 1 wppm to 1 wt% of bicyclohexane;~~

~~c. 1 wppm to 1 wt% of biphenyl; and~~

~~d. 10 wppm to 1 wt% of methylcyclopentylbenzene,~~

~~wherein the wt%s and wppms are based upon total weight of the composition.~~

~~22. The composition of claim 21, wherein the composition comprises 10 wppm to 8000 wppm of bicyclohexane.~~

~~23. The composition of claim 21 or claim 22, wherein the composition comprises 10 wppm to 8000 wppm of biphenyl.~~

~~24. The composition of any one of claims 21-23, wherein the composition comprises less than 1000 wppm of phenol, olefins or alkylene benzenes.~~

~~25. The composition of any one of claims 21-24, wherein the composition comprises less than 100 wppm of phenol, olefins or alkylene benzenes.~~