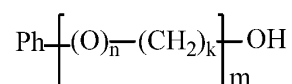


WHAT IS CLAIMED IS:

1. A process for the preparation of 2-(*n*-decylthio)ethylamine HCl comprising reacting decene and cysteamine HCl with (a) a catalyst, (b) water, and (c) an Additive of the Formula (A):



Formula (A)

wherein:

Ph is phenyl;

n is 0 or 1;

k is 2-4; and

m is 1-3;

to provide the 2-(*n*-decylthio)ethylamine HCl as a concentrated reaction mixture in about >90% yield, wherein such concentrated reaction mixture is further diluted with water to provide a low temperature stable (LTS) liquid product.

2. The process of Claim 1 wherein additional Additive is added directly to the concentrated reaction mixture, or as a part of the dilution with water, or after the dilution with water.
3. The process of Claim 1 or 2 wherein the Additive is 2-phenoxyethanol (PE), 2-phenylethanol (PA), or diethyleneglycol phenylether (DiEPH).
4. The process of Claim 1 or 2 wherein the catalyst is H₂O₂ or an azo catalyst.
5. The process of Claim 4 wherein the azo catalyst is 2,2'-azobis[2-(2-imidazolin-2-yl)propane] dihydrochloride; 2,2'-azobis(2-methylpropionamidine) dihydrochloride; 2,2'-azobis[*N*-(2-carboxyethyl)-2-methylpropionamidine]; 2,2'-

azobis[2-methyl-*N*-(2-hydroxyethyl)propionamide]; or 4,4'-azobis(4-cyanovaleric acid).

6. The process of Claim 5 wherein the azo catalyst is 2,2'-azobis(2-methylpropionamidine) dihydrochloride.
- 5 7. The process of Claim 1 wherein stable liquid product means without separation of a second phase or solids formation.
8. The process of Claim 1 wherein the Additive is 2-phenoxyethanol (PE), 2-phenylethanol (PA) or diethyleneglycol phenylether (DiEPh) and the catalyst is 2,2'-azobis(2-methylpropionamidine) dihydrochloride.
- 10 9. The process of Claim 1 wherein the Additive is 2-phenoxyethanol (PE), 2-phenylethanol (PA) or diethyleneglycol phenylether (DiEPh) and the catalyst is H₂O₂.
10. The process of Claim 1 wherein 2-(*n*-decylthio)ethylamine HCl after the dilution with water is present from about 2 to about 25 wt%.
- 15 11. The process of Claim 1 wherein 2-(*n*-decylthio)ethylamine HCl after the dilution with water is present from about 5 to about 15 wt%.
12. The process of Claim 1 wherein the amount of Additive present after the dilution with water is present from about 1 to about 30 wt%.
13. The process of Claim 1 wherein the amount of Additive present after the dilution with water is present from about 2 to about 20 wt%.
- 20 14. The process of Claim 1 wherein the amount of Additive used in the reaction is from about 10 to about 49 wt%.
15. The process of Claim 1 wherein the reaction is run under an inert atmosphere, at a temperature from about 70°C to about 79°C.

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