Claims:

1. A composition comprising:

   (a) at least 98% N-{[(2*R*)-2-hydroxy-3-piperidin-1-ylpropyl]oxy}pyridine-3-carboximidoyl chloride 1-oxide citrate:

   (b) about 1.0% to about 1.9% or less N-{[(2*S*)-2-hydroxy-3-piperidin-1-ylpropyl]oxy}pyridine-3-carboximidoyl chloride 1-oxide, or pharmaceutically acceptable salt thereof; and

   (c) about 0.05% to about 0.1% methyl (Z)-N-(2-hydroxy-3-(piperidin-1-yl)propoxy)nicotinimidate 1-oxide, or a pharmaceutically acceptable salt thereof.

2. The composition of claim 1, wherein the composition is a pharmaceutical composition.

3. The pharmaceutical composition according to claim 2, wherein the composition further comprises:

   less than 2 ppm N-nitrosopiperidine.

4. The pharmaceutical composition according to claim 3, wherein the composition comprises: about 0.8 ppm to about 2 ppm N-nitrosopiperidine.

5. An oral formulation comprising the composition of claim 1, and at least one pharmaceutically acceptable excipient.

6. The oral formulation according to claim 5, wherein the N-{[(2R)-2-hydroxy-3-piperidin-1-ylpropyl]oxy}pyridine-3-carboximidoyl chloride 1-oxide citrate is present at a dosage from about 50 mg to about 500 mg.

7. The oral formulation of claim 5, wherein the oral formulation comprises from about 20% to about 60% w/w of N-{[(2R)-2-hydroxy-3-piperidin-1-ylpropyl]oxy}pyridine-3-carboximidoyl chloride 1-oxide citrate.

8. The oral formulation of claim 5, comprising N-{[(2R)-2-hydroxy-3-piperidin-1-ylpropyl]oxy}pyridine-3-carboximidoyl chloride 1-oxide citrate at a dosage of about 47 mg, about 62 mg, about 93 mg, or about 124 mg.

9. A unit dosage form of the composition of claim 1 and a pharmaceutically acceptable carrier or excipient.

10. The unit dosage form according to claim 9, comprising N-{[(2R)-2-hydroxy-3-piperidin-1-ylpropyl]oxy}pyridine-3-carboximidoyl chloride 1-oxide, or a pharmaceutically acceptable salt thereof at a dosage from about 50 mg to about 500 mg.

11. The unit dosage form of claim 9, comprising N-{[(2R)-2-hydroxy-3-piperidin-1-ylpropyl]oxy}pyridine-3-carboximidoyl chloride 1-oxide citrate at a dosage of about 47 mg, about 62 mg, about 93 mg, or about 124 mg.

12. Use of a pharmaceutical composition according to claim 2, in the manufacture of a medicament for the treatment of Niemann Pick disease, type C in a subject in need thereof.

13. Use of an oral formulation according to claim 5, in the manufacture of a medicament for the treatment of Niemann Pick disease, type C in a subject in need thereof.

14. Use of a unit dosage form according to claim 9, in the manufacture of a medicament for the treatment of Niemann Pick disease, type C in a subject in need thereof.

15. A composition comprising:

(a) at least 98% N-{[(2*R*)-2-hydroxy-3-piperidin-1-ylpropyl]oxy}pyridine-3-carboximidoyl chloride 1-oxide citrate:

(b) about 1.0% to about 1.9% or less N-{[(2*S*)-2-hydroxy-3-piperidin-1-ylpropyl]oxy}pyridine-3-carboximidoyl chloride 1-oxide, or pharmaceutically acceptable salt thereof; and

(c) about 0.8 ppm to about 2 ppm N-nitrosopiperidine.

16. The composition of claim 15, wherein the composition is a pharmaceutical composition.

17. The pharmaceutical composition according to claim 16, wherein the composition comprises less than about 0.1% methyl (Z)-N-(2-hydroxy-3-(piperidin-1-yl)propoxy)nicotinimidate 1-oxide, or a pharmaceutically acceptable salt thereof.

18. The pharmaceutical composition according to claim 17, wherein the composition comprises about 0.05% to about 0.1% methyl (Z)-N-(2-hydroxy-3-(piperidin-1-yl)propoxy)nicotinimidate 1-oxide, or a pharmaceutically acceptable salt thereof.

19. An oral formulation comprising the composition of claim 15, and at least one pharmaceutically acceptable excipient.

20. The oral formulation according to claim 19, wherein the N-{[(2R)-2-hydroxy-3-piperidin-1-ylpropyl]oxy}pyridine-3-carboximidoyl chloride 1-oxide citrate is present at a dosage from about 50 mg to about 500 mg.

21. The oral formulation of claim 22, wherein the oral formulation comprises from about 20% to about 60% w/w of N-{[(2R)-2-hydroxy-3-piperidin-1-ylpropyl]oxy}pyridine-3-carboximidoyl chloride 1-oxide citrate.

22. The oral formulation of claim 22, comprising N-{[(2R)-2-hydroxy-3-piperidin-1-ylpropyl]oxy}pyridine-3-carboximidoyl chloride 1-oxide citrate at a dosage of about 47 mg, about 62 mg, about 93 mg, or about 124 mg.

23. A unit dosage form of the composition of claim 15 and a pharmaceutically acceptable carrier or excipient.

24. The unit dosage form according to claim 20, comprising N-{[(2R)-2-hydroxy-3-piperidin-1-ylpropyl]oxy}pyridine-3-carboximidoyl chloride 1-oxide, or a pharmaceutically acceptable salt thereof at a dosage from about 50 mg to about 500 mg.

25. The unit dosage form of claim 23, comprising N-{[(2R)-2-hydroxy-3-piperidin-1-ylpropyl]oxy}pyridine-3-carboximidoyl chloride 1-oxide citrate at a dosage of about 47 mg, about 62 mg, about 93 mg, or about 124 mg.

26. Use of a pharmaceutical composition according to claim 15, in the manufacture of a medicament for the treatment of Niemann Pick disease, type C in a subject in need thereof.

27. Use of an oral formulation according to claim 19, in the manufacture of a medicament for the treatment of Niemann Pick disease, type C in a subject in need thereof.

28. Use of a unit dosage form according to claim 23, in the manufacture of a medicament for the treatment of Niemann Pick disease, type C in a subject in need thereof.