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) 1.0% to 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) 0.05% to 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: 0.8 ppm to 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 50 mg to 500 mg.

7. The oral formulation of claim 5, wherein the oral formulation comprises from 20% to 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 47 mg, 62 mg, 93 mg, or 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 0, 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 50 mg to 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 47 mg, 62 mg, 93 mg, or 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) 1.0% to 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) 0.8 ppm to 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 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 0.05% to 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 50 mg to 500 mg.

21. The oral formulation of claim 19, wherein the oral formulation comprises from 20% to 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 19, comprising N-{[(2R)-2-hydroxy-3-piperidin-1-ylpropyl]oxy}pyridine-3-carboximidoyl chloride 1-oxide citrate at a dosage of 47 mg, 62 mg, 93 mg, or 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 23, 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 50 mg to 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 47 mg, 62 mg, 93 mg, or 124 mg.

26. Use of a pharmaceutical composition according to claim 16, 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.