

CLAIMS

1. A composition comprising, consisting essentially of, or consisting of hypochlorous acid or free available chlorine and one or more disinfectants.
2. The composition according to claim 1, wherein the hypochlorous acid or free available chlorine is in an amount of about 0.00005%, about 0.00006%, about 0.00007%, about 0.000075%, about 0.00008%, about 0.00009%, about 0.0001%, about 0.0005%, about 0.001%, about 0.0015%, about 0.002%, about 0.0025%, about 0.003%, about 0.0035%, about 0.004%, about 0.0045%, about 0.005%, about 0.0055%, about 0.006%, about 0.007%, about 0.0075%, about 0.008%, about 0.009%, about 0.01%, about 0.02%, about 0.03%, about 0.04%, about 0.05%, about 0.06%, about 0.07%, about 0.075%, about 0.08%, about 0.09%, about 0.10%, about 0.11%, about 0.12%, about 0.13%, about 0.14%, or about 0.15% by weight of the composition or at least 0.00005%, at least 0.00006%, at least 0.00007%, at least 0.000075%, at least 0.00008%, at least 0.00009%, at least 0.0001%, at least 0.0005%, at least 0.001%, at least 0.0015%, at least 0.002%, at least 0.0025%, at least 0.003%, at least 0.0035%, at least 0.004%, at least 0.0045%, at least 0.005%, at least 0.0055%, at least 0.006%, at least 0.007%, at least 0.0075%, at least 0.008%, at least 0.009%, at least 0.01%, at least 0.02%, at least 0.03%, at least 0.04%, at least 0.05%, at least 0.06%, at least 0.07%, at least 0.075%, at least 0.08%, at least 0.09%, at least 0.10%, at least 0.11%, at least 0.12%, at least 0.13%, at least 0.14%, or at least 0.15% by weight of the composition or at most 0.00005%, at most 0.00006%, at most 0.00007%, at most 0.000075%, at most 0.00008%, at most 0.00009%, at most 0.0001%, at most 0.0005%, at most 0.001%, at most 0.0015%, at most 0.002%, at most 0.0025%, at most 0.003%, at most 0.0035%, at most 0.004%, at most 0.0045%, at most 0.005%, at most 0.0055%, at most 0.006%, at most 0.007%, at most 0.0075%, at most 0.008%, at most 0.009%, at most 0.01%, at most 0.02%, at most 0.03%, at most 0.04%, at most 0.05%, at most 0.06%, at most 0.07%, at most 0.075%, at most 0.08%, at most 0.09%, at most 0.10%, at most 0.11%, at most 0.12%, at most 0.13%, at most 0.14%, or at most 0.15% by weight of the composition or about 0.00075% to about 0.002%, about 0.00075% to about 0.003%, about 0.00075% to about 0.004%, about 0.00075% to about 0.005%, about 0.00075% to about 0.006%, about 0.00075% to about 0.007%, about 0.00075% to about 0.008%, about 0.00075% to about 0.009%, about 0.00075% to about 0.01%, about 0.001% to about 0.002%, about 0.001% to about 0.003%, about 0.001% to about 0.004%, about 0.001% to about 0.005%, about 0.001% to about 0.006%, about 0.001% to about 0.007%, about 0.001% to about 0.008%, about 0.001% to about 0.009%, about 0.001% to about 0.01%, about 0.002% to about 0.003%, about 0.002% to about 0.004%, about 0.002% to about 0.005%, about 0.002% to about 0.006%, about 0.002% to about 0.007%, about 0.002% to about 0.008%, about 0.002% to about 0.009%, about 0.002% to about 0.01% by weight of the composition
3. The composition according to claim 1, wherein the hypochlorous acid or free available chlorine is in an amount of 0.05 ppm, 0.10 ppm, 0.15 ppm, 0.20 ppm, 0.25 ppm, 0.30 ppm, 0.35 ppm, 0.40 ppm, 0.45 ppm, 0.50 ppm, 0.55 ppm, 0.60 ppm, 0.65 ppm, 0.70 ppm, 0.75 ppm, 0.80 ppm, 0.85 ppm, 0.90 ppm, 0.95 ppm, 1 ppm, 5 ppm, 10 ppm, 15 ppm, 20 ppm, 25 ppm, 30 ppm, 35 ppm, 40 ppm, 45 ppm, 50

ppm, 55 ppm, 60 ppm, 65 ppm, 70 ppm, 75 ppm, 80 ppm, 85 ppm, 90 ppm, 95 ppm, 100 ppm, 125 ppm, 150 ppm, 175 ppm, 200 ppm, 225 ppm, 250 ppm, 275 ppm, 300 ppm, 325 ppm, 350 ppm, 375 ppm, 400 ppm, 425 ppm, 450 ppm, 475 ppm, 500 ppm, 525 ppm, 550 ppm, 575 ppm, 600 ppm, 625 ppm, 650 ppm, 675 ppm, 700 ppm, 725 ppm, 750 ppm, 775 ppm, 800 ppm, 825 ppm, 850 ppm, 875 ppm, 900 ppm, 925 ppm, 950 ppm, 975 ppm, 1,000 ppm, 1,025 ppm, 1,050 ppm, 1,075 ppm, 1,100 ppm, 1,125 ppm, 1,150 ppm, 1,175 ppm, 1,200 ppm, 1,225 ppm, 1,250 ppm, 1,275 ppm, 1,300 ppm, 1,325 ppm, 1,350 ppm, 1,375 ppm, 1,400 ppm, 1,425 ppm, 1,450 ppm, 1,475 ppm, or 1,500 ppm or at least 0.05 ppm, at least 0.10 ppm, at least 0.20 ppm, at least 0.30 ppm, at least 0.40 ppm, at least 0.50 ppm, at least 0.60 ppm, at least 0.70 ppm, at least 0.80 ppm, at least 0.90 ppm, at least 1 ppm, at least 10 ppm, at least 20 ppm, at least 30 ppm, at least 40 ppm, at least 50 ppm, at least 60 ppm, at least 70 ppm, at least 80 ppm, at least 90 ppm, at least 100 ppm, at least 125 ppm, at least 150 ppm, at least 175 ppm, at least 200 ppm, at least 225 ppm, at least 250 ppm, at least 275 ppm, at least 300 ppm, at least 325 ppm, at least 350 ppm, at least 375 ppm, at least 400 ppm, at least 425 ppm, at least 450 ppm, at least 475 ppm, at least 500 ppm, at least 525 ppm, at least 550 ppm, at least 575 ppm, at least 600 ppm, at least 625 ppm, at least 650 ppm, at least 675 ppm, at least 700 ppm, at least 725 ppm, at least 750 ppm, at least 775 ppm, at least 800 ppm, at least 825 ppm, at least 850 ppm, at least 875 ppm, at least 900 ppm, at least 925 ppm, at least 950 ppm, at least 975 ppm, at least 1,000 ppm, at least 1,025 ppm, at least 1,050 ppm, at least 1,075 ppm, at least 1,100 ppm, at least 1,125 ppm, at least 1,150 ppm, at least 1,175 ppm, at least 1,200 ppm, at least 1,225 ppm, at least 1,250 ppm, at least 1,275 ppm, at least 1,300 ppm, at least 1,325 ppm, at least 1,350 ppm, at least 1,375 ppm, at least 1,400 ppm, at least 1,425 ppm, at least 1,450 ppm, at least 1,475 ppm, or at least 1,500 ppm or at most 0.05 ppm, at most 0.10 ppm, at most 0.20 ppm, at most 0.30 ppm, at most 0.40 ppm, at most 0.50 ppm, at most 0.60 ppm, at most 0.70 ppm, at most 0.80 ppm, at most 0.90 ppm, at most 1 ppm, at most 10 ppm, at most 20 ppm, at most 30 ppm, at most 40 ppm, at most 50 ppm, at most 60 ppm, at most 70 ppm, at most 80 ppm, at most 90 ppm, at most 100 ppm, at most 125 ppm, at most 150 ppm, at most 175 ppm, at most 200 ppm, at most 225 ppm, at most 250 ppm, at most 275 ppm, at most 300 ppm, at most 325 ppm, at most 350 ppm, at most 375 ppm, at most 400 ppm, at most 425 ppm, at most 450 ppm, at most 475 ppm, at most 500 ppm, at most 525 ppm, at most 550 ppm, at most 575 ppm, at most 600 ppm, at most 625 ppm, at most 650 ppm, at most 675 ppm, at most 700 ppm, at most 725 ppm, at most 750 ppm, at most 775 ppm, at most 800 ppm, at most 825 ppm, at most 850 ppm, at most 875 ppm, at most 900 ppm, at most 925 ppm, at most 950 ppm, at most 975 ppm, at most 1,000 ppm, at most 1,025 ppm, at most 1,050 ppm, at most 1,075 ppm, at most 1,100 ppm, at most 1,125 ppm, at most 1,150 ppm, at most 1,175 ppm, at most 1,200 ppm, at most 1,225 ppm, at most 1,250 ppm, at most 1,275 ppm, at most 1,300 ppm, at most 1,325 ppm, at most 1,350 ppm, at most 1,375 ppm, at most 1,400 ppm, at most 1,425 ppm, at most 1,450 ppm, at most 1,475 ppm, or at most 1,500 ppm or about 0.5 ppm to about 20 ppm, about 0.5 ppm to about 25 ppm, about 0.5 ppm to about 30 ppm, about 0.5 ppm to about 35 ppm, about 0.5 ppm to about 40 ppm, about 0.5 ppm to about 45 ppm, about 0.5 ppm to about 50 ppm, about 0.5 ppm to about 55 ppm, about 0.5 ppm to about 60 ppm, about 0.5 ppm to about 65 ppm, about 0.5 ppm to about 70 ppm, about 0.5 ppm to about 75 ppm, about 0.5 ppm to about 80 ppm, about 0.5 ppm to about 85 ppm, about 0.5 ppm to about 90 ppm, about 0.5 ppm to about 95 ppm, about 0.5 ppm to about 100 ppm, about 0.75 ppm to about 20 ppm, about 0.75 ppm to about

[illegible]

[illegible]

ppm to about 1,400 ppm, about 1,300 ppm to about 1,500 ppm, or about 1,400 ppm to about 1,500 ppm.

4. The composition according to any one of claims 1-3, wherein the one or more disinfectants are in an amount of about 0.01%, about 0.05%, about 0.075%, about 0.1%, about 0.2%, about 0.3%, about 0.4%, about 0.5%, about 0.6%, about 0.7%, about 0.8%, about 0.9%, about 1.0%, about 1.5%, about 2.0%, about 2.5%, about 3.0%, about 4.0%, about 5.0%, about 6.0%, about 7.0%, about 7.5%, about 8.0%, about 9.0% or about 10.0% by weight of the composition, or at least 0.01%, at least 0.05%, at least 0.075%, at least 0.1%, at least 0.25%, at least 0.5%, at least 0.75%, at least 1.0%, at least 1.5%, at least 2.0%, at least 2.5%, at least 3.0%, at least 4.0%, at least 5.0%, at least 6.0%, at least 7.0%, at least 7.5%, at least 8.0%, at least 9.0%, or at least 10.0% by weight of the composition, or at most 0.01%, at most 0.05%, at most 0.075%, at most 0.1%, at most 0.25%, at most 0.5%, at most 0.75%, at most 1.0%, at most 1.5%, at most 2.0%, at most 2.5%, at most 3.0%, at most 4.0%, at most 5.0%, at most 6.0%, at most 7.5%, at most 8.0%, at most 9.0% or at most 10.0% by weight of the composition, or about 0.1% to about 0.5%, about 0.1% to about 0.75%, about 0.1% to about 1.0%, about 0.1% to about 1.5%, about 0.1% to about 2.0%, about 0.1% to about 2.5%, about 0.2% to about 0.5%, about 0.2% to about 0.75%, about 0.2% to about 1.0%, about 0.2% to about 1.5%, about 0.2% to about 2.0%, about 0.2% to about 2.5%, about 0.5% to about 1.0%, about 0.5% to about 1.5%, about 0.5% to about 2.0%, about 0.5% to about 2.5%, about 0.5% to about 3.0%, about 0.5% to about 4.0%, about 0.5% to about 5.0%, about 1.0% to about 2.5%, about 1.0% to about 3.0%, about 1.0% to about 4.0%, about 1.0% to about 5.0%, about 1.0% to about 6.0%, about 1.0% to about 7.0%, about 1.0% to about 7.5%, about 1.0% to about 8.0%, about 1.0% to about 9.0%, about 1.0% to about 10.0%, about 2.0% to about 2.5%, about 2.0% to about 3.0%, about 2.0% to about 4.0%, about 2.0% to about 5.0%, about 2.0% to about 6.0%, about 2.0% to about 7.0%, about 2.0% to about 7.5%, about 2.0% to about 8.0%, about 2.0% to about 9.0%, about 2.0% to about 10.0%, about 5.0% to about 6.0%, about 5.0% to about 7.0%, about 5.0% to about 7.5%, about 5.0% to about 8.0%, about 5.0% to about 9.0%, about 5.0% to about 10.0%, about 5.0% to about 11.0%, about 5.0% to about 12.0%, about 5.0% to about 13.0%, about 5.0% to about 14.0% or about 5.0% to about 15.0% by weight of the composition.
5. The composition according to any one of claims 1-3, wherein the one or more disinfectants are in an amount of about 100 ppm, 125 ppm, 150 ppm, 175 ppm, 200 ppm, 225 ppm, 250 ppm, 275 ppm, 300 ppm, 325 ppm, 350 ppm, 375 ppm, 400 ppm, 425 ppm, 450 ppm, 475 ppm, 500 ppm, 525 ppm, 550 ppm, 575 ppm, 600 ppm, 625 ppm, 650 ppm, 675 ppm, 700 ppm, 725 ppm, 750 ppm, 775 ppm, 800 ppm, 825 ppm, 850 ppm, 875 ppm, 900 ppm, 925 ppm, 950 ppm, 975 ppm, or 1,000 ppm, or at least 100 ppm, at least 125 ppm, at least 150 ppm, at least 175 ppm, at least 200 ppm, at least 225 ppm, at least 250 ppm, at least 275 ppm, at least 300 ppm, at least 325 ppm, at least 350 ppm, at least 375 ppm, at least 400 ppm, at least 425 ppm, at least 450 ppm, at least 475 ppm, at least 500 ppm, at least 525 ppm, at least 550 ppm, at least 575 ppm, at least 600 ppm, at least 625 ppm, at least 650 ppm, at least 675 ppm, at least 700 ppm, at least 725 ppm, at least 750 ppm, at least 775 ppm, at least 800 ppm, at least 825 ppm, at least 850 ppm, at least 875 ppm, at least 900 ppm, at least 925 ppm, at least 950 ppm, at least 975 ppm, or at least 1,000 ppm, or at most 100 ppm, at most 125 ppm, at most 150

ppm, at most 175 ppm, at most 200 ppm, at most 225 ppm, at most 250 ppm, at most 275 ppm, at most 300 ppm, at most 325 ppm, at most 350 ppm, at most 375 ppm, at most 400 ppm, at most 425 ppm, at most 450 ppm, at most 475 ppm, at most 500 ppm, at most 525 ppm, at most 550 ppm, at most 575 ppm, at most 600 ppm, at most 625 ppm, at most 650 ppm, at most 675 ppm, at most 700 ppm, at most 725 ppm, at most 750 ppm, at most 775 ppm, at most 800 ppm, at most 825 ppm, at most 850 ppm, at most 875 ppm, at most 900 ppm, at most 925 ppm, at most 950 ppm, at most 975 ppm, or at most 1,000 ppm, or about 100 ppm to about 200 ppm, about 100 ppm to about 300 ppm, about 100 ppm to about 400 ppm, about 100 ppm to about 500 ppm, about 100 ppm to about 600 ppm, about 100 ppm to about 700 ppm, about 100 ppm to about 800 ppm, about 100 ppm to about 900 ppm, about 100 ppm to about 1,000 ppm, about 200 ppm to about 300 ppm, about 200 ppm to about 400 ppm, about 200 ppm to about 500 ppm, about 200 ppm to about 600 ppm, about 200 ppm to about 700 ppm, about 200 ppm to about 800 ppm, about 200 ppm to about 900 ppm, about 200 ppm to about 1,000 ppm, about 300 ppm to about 400 ppm, about 300 ppm to about 500 ppm, about 300 ppm to about 600 ppm, about 300 ppm to about 700 ppm, about 300 ppm to about 800 ppm, about 300 ppm to about 900 ppm, about 300 ppm to about 1,000 ppm, about 400 ppm to about 500 ppm, about 400 ppm to about 600 ppm, about 400 ppm to about 700 ppm, about 400 ppm to about 800 ppm, about 400 ppm to about 900 ppm, about 400 ppm to about 1,000 ppm, about 500 ppm to about 600 ppm, about 500 ppm to about 700 ppm, about 500 ppm to about 800 ppm, about 500 ppm to about 900 ppm, about 500 ppm to about 1,000 ppm, about 600 ppm to about 700 ppm, about 600 ppm to about 800 ppm, about 600 ppm to about 900 ppm, about 600 ppm to about 1,000 ppm, about 700 ppm to about 800 ppm, about 700 ppm to about 900 ppm, about 700 ppm to about 1,000 ppm, about 800 ppm to about 900 ppm, about 800 ppm to about 1,000 ppm, or about 900 ppm to about 1,000 ppm.

6. The composition according to any one of claims 1-5, wherein the one or more disinfectants include one or more compounds containing a guanide moiety or functional group, one or more aldehyde-containing compounds, one or more organic peroxides, or any combination thereof.
7. The composition according to claim 6, wherein the one or more guanide-containing compounds comprise, consist essentially of, or consist of a biguanide, a biguanide-containing compound, a biguanidine, a biguanidine-containing compound, a triguanide, a triguanide-containing compound, or any combination thereof.
8. The composition according to claim 7, wherein the one or more biguanide-containing compounds include a polyhexamethylene biguanide (PHMB), a polyaminopropyl biguanide (PAPB), a 1,1'-(1,6-Hexanediyl)bis{2-[N'-(2-ethylhexyl)carbamidoyl]guanidine} (alexidine), a chlorhexidine, a chlorhexidine gluconate, or any combination thereof.
9. The composition according to claim 6, wherein the one or more aldehyde-containing compounds include one or more aldehydes, one or more dialdehydes, or any combination thereof.

10. The composition according to claim 9, wherein the one or more aldehydes includes one or more linear aldehydes, one or more branched aldehydes, one or more cyclic aldehydes, one or more aromatic aldehydes, or any combination thereof.
11. The composition according to claim 9 or 10, wherein the one or more aldehydes includes formaldehyde, acetaldehyde, propionaldehyde, butyraldehyde, or any combination thereof.
12. The composition according to claim 9, wherein the one or more dialdehydes includes one or more linear dialdehydes, one or more branched dialdehydes, one or more cyclic dialdehydes, one or more aromatic dialdehydes, or any combination thereof.
13. The composition according to claim 9 or 10, wherein the one or more dialdehydes includes oxaldehyde, malondialdehyde, glutaraldehyde, succinicaldehyde, phthalaldehyde (*ortho*-phthalaldehyde), isophthalaldehyde (*meta*-phthalaldehyde), terephthalaldehyde (*para*-phthalaldehyde), or any combination thereof.
14. The composition according to claim 6, wherein the one or more organic peroxides include benzoyl peroxide, ethaneperoxoic acid (peracetic acid), or any combination thereof.
15. The composition according to any one of claims 6-14, wherein the one or more guanide-containing compounds, one or more aldehyde-containing compounds, and/or one or more organic peroxides are in an amount of about 0.01%, about 0.05%, about 0.075%, about 0.1%, about 0.2%, about 0.3%, about 0.4%, about 0.5%, about 0.6%, about 0.7%, about 0.8%, about 0.9%, about 1.0%, about 1.5%, about 2.0%, about 2.5%, about 3.0%, about 4.0%, about 5.0%, about 6.0%, about 6.5%, about 7.0%, about 7.5%, about 8.0%, about 8.5%, about 9.0%, about 9.5%, about 10.0%, about 11%, about 12%, about 13%, about 14%, about 15%, about 20%, about 25%, or about 30% by weight of the composition, or at least 0.01%, at least 0.05%, at least 0.075%, at least 0.1%, at least 0.25%, at least 0.5%, at least 0.75%, at least 1.0%, at least 1.5%, at least 2.0%, at least 2.5%, at least 3.0%, at least 4.0%, at least 5.0%, at least 6.0%, at least 7.0%, at least 7.5%, at least 8.0%, at least 9.0%, at least 10.0%, at least 11%, at least 12%, at least 13%, at least 14%, at least 15%, at least 20%, at least 25%, or at least 30% by weight of the composition, or at most 0.01%, at most 0.05%, at most 0.075%, at most 0.1%, at most 0.25%, at most 0.5%, at most 0.75%, at most 1.0%, at most 1.5%, at most 2.0%, at most 2.5%, at most 3.0%, at most 4.0%, at most 5.0%, at most 6.0%, at most 7.5%, at most 8.0%, at most 9.0%, at most 10.0%, at most 11%, at most 12%, at most 13%, at most 14%, at most 15%, at most 20%, at most 25%, or at most 30% by weight of the composition, or about 0.1% to about 0.5%, about 0.1% to about 0.75%, about 0.1% to about 1.0%, about 0.1% to about 1.5%, about 0.1% to about 2.0%, about 0.1% to about 2.5%, about 0.1% to about 3.0%, about 0.1% to about 3.5%, about 0.1% to about 4.0%, about 0.1% to about 4.5%, about 0.1% to about 5.0%, about 0.2% to about 0.5%, about 0.2% to about 0.75%, about 0.2% to about 1.0%, about 0.2% to about 1.5%, about 0.2% to about 2.0%, about 0.2% to about 2.5%, about 0.2% to about 3.0%, about 0.2% to about 3.5%, about 0.2% to about 4.0%, about 0.2% to about 4.5%, about 0.2% to about 5.0%, about 0.5% to about 1.0%, about 0.5% to about 1.5%, about

0.5% to about 2.0%, about 0.5% to about 2.5%, about 0.5% to about 3.0%, about 0.5% to about 4.0%, about 0.5% to about 5.0%, about 0.5% to about 6.0%, about 0.5% to about 7.0%, about 0.5% to about 8.0%, about 0.5% to about 9.0%, about 0.5% to about 10.0%, about 1.0% to about 2.5%, about 1.0% to about 3.0%, about 1.0% to about 4.0%, about 1.0% to about 5.0%, about 1.0% to about 6.0%, about 1.0% to about 7.0%, about 1.0% to about 7.5%, about 1.0% to about 8.0%, about 1.0% to about 9.0%, about 1.0% to about 10.0%, about 1.0% to about 15.0%, about 1.0% to about 20.0%, about 1.0% to about 25.0%, about 1.0% to about 30.0%, about 2.0% to about 2.5%, about 2.0% to about 3.0%, about 2.0% to about 4.0%, about 2.0% to about 5.0%, about 2.0% to about 6.0%, about 2.0% to about 7.0%, about 2.0% to about 7.5%, about 2.0% to about 8.0%, about 2.0% to about 9.0%, about 2.0% to about 10.0%, about 2.0% to about 15.0%, about 2.0% to about 20.0%, about 2.0% to about 25.0%, about 2.0% to about 30.0%, about 5.0% to about 6.0%, about 5.0% to about 7.0%, about 5.0% to about 7.5%, about 5.0% to about 8.0%, about 5.0% to about 9.0%, about 5.0% to about 10.0%, about 5.0% to about 11.0%, about 5.0% to about 12.0%, about 5.0% to about 13.0%, about 5.0% to about 14.0%, about 5.0% to about 15.0%, about 5.0% to about 20.0%, about 5.0% to about 25.0%, about 5.0% to about 30.0%, about 6.0% to about 7.0%, about 6.0% to about 7.5%, about 6.0% to about 8.0%, about 6.0% to about 9.0%, about 6.0% to about 10.0%, about 6.0% to about 11.0%, about 6.0% to about 12.0%, about 6.0% to about 13.0%, about 6.0% to about 14.0%, about 6.0% to about 15.0%, about 6.0% to about 20.0%, about 6.0% to about 25.0%, about 6.0% to about 30.0%, about 7.0% to about 8.0%, about 7.0% to about 9.0%, about 7.0% to about 10.0%, about 7.0% to about 11.0%, about 7.0% to about 12.0%, about 7.0% to about 13.0%, about 7.0% to about 14.0%, about 7.0% to about 15.0%, about 7.0% to about 20.0%, about 7.0% to about 25.0%, about 7.0% to about 30.0%, about 8.0% to about 9.0%, about 8.0% to about 10.0%, about 8.0% to about 11.0%, about 8.0% to about 12.0%, about 8.0% to about 13.0%, about 8.0% to about 14.0%, about 8.0% to about 15.0%, about 8.0% to about 20.0%, about 8.0% to about 25.0%, about 8.0% to about 30.0%, about 9.0% to about 10.0%, about 9.0% to about 11.0%, about 9.0% to about 12.0%, about 9.0% to about 13.0%, about 9.0% to about 14.0%, about 9.0% to about 15.0%, about 9.0% to about 20.0%, about 9.0% to about 25.0%, about 9.0% to about 30.0%, about 10.0% to about 11.0%, about 10.0% to about 12.0%, about 10.0% to about 13.0%, about 10.0% to about 14.0%, about 10.0% to about 15.0%, about 10.0% to about 20.0%, about 10.0% to about 25.0%, about 10.0% to about 30.0%, about 15.0% to about 20.0%, about 15.0% to about 25.0%, about 15.0% to about 30.0%, about 20.0% to about 25.0%, about 20.0% to about 30.0%, or about 20.0% to about 30.0%, by weight of the composition.

16. The composition according to any one of claims 6-14, wherein the one or more aldehydes and/or one or more dialdehydes are in an amount of about 100 ppm, 125 ppm, 150 ppm, 175 ppm, 200 ppm, 225 ppm, 250 ppm, 275 ppm, 300 ppm, 325 ppm, 350 ppm, 375 ppm, 400 ppm, 425 ppm, 450 ppm, 475 ppm, 500 ppm, 525 ppm, 550 ppm, 575 ppm, 600 ppm, 625 ppm, 650 ppm, 675 ppm, 700 ppm, 725 ppm, 750 ppm, 775 ppm, 800 ppm, 825 ppm, 850 ppm, 875 ppm, 900 ppm, 925 ppm, 950 ppm, 975 ppm, or 1,000 ppm, or at least 100 ppm, at least 125 ppm, at least 150 ppm, at least 175 ppm, at least 200 ppm, at least 225 ppm, at least 250 ppm, at least 275 ppm, at least 300 ppm, at least 325 ppm, at least 350 ppm, at least 375 ppm, at least 400 ppm, at least 425 ppm, at least 450 ppm, at least 475 ppm, at least 500 ppm, at least 525 ppm, at least 550 ppm, at least 575 ppm, at least 600 ppm, at least

625 ppm, at least 650 ppm, at least 675 ppm, at least 700 ppm, at least 725 ppm, at least 750 ppm, at least 775 ppm, at least 800 ppm, at least 825 ppm, at least 850 ppm, at least 875 ppm, at least 900 ppm, at least 925 ppm, at least 950 ppm, at least 975 ppm, or at least 1,000 ppm, or at most 100 ppm, at most 125 ppm, at most 150 ppm, at most 175 ppm, at most 200 ppm, at most 225 ppm, at most 250 ppm, at most 275 ppm, at most 300 ppm, at most 325 ppm, at most 350 ppm, at most 375 ppm, at most 400 ppm, at most 425 ppm, at most 450 ppm, at most 475 ppm, at most 500 ppm, at most 525 ppm, at most 550 ppm, at most 575 ppm, at most 600 ppm, at most 625 ppm, at most 650 ppm, at most 675 ppm, at most 700 ppm, at most 725 ppm, at most 750 ppm, at most 775 ppm, at most 800 ppm, at most 825 ppm, at most 850 ppm, at most 875 ppm, at most 900 ppm, at most 925 ppm, at most 950 ppm, at most 975 ppm, or at most 1,000 ppm,

17. The composition according to any one of claims 6-14, wherein the one or more aldehydes and/or one or more dialdehydes are in an amount of about 100 ppm to about 200 ppm, about 100 ppm to about 300 ppm, about 100 ppm to about 400 ppm, about 100 ppm to about 500 ppm, about 100 ppm to about 600 ppm, about 100 ppm to about 700 ppm, about 100 ppm to about 800 ppm, about 100 ppm to about 900 ppm, about 100 ppm to about 1,000 ppm, about 200 ppm to about 300 ppm, about 200 ppm to about 400 ppm, about 200 ppm to about 500 ppm, about 200 ppm to about 600 ppm, about 200 ppm to about 700 ppm, about 200 ppm to about 800 ppm, about 200 ppm to about 900 ppm, about 200 ppm to about 1,000 ppm, about 300 ppm to about 400 ppm, about 300 ppm to about 500 ppm, about 300 ppm to about 600 ppm, about 300 ppm to about 700 ppm, about 300 ppm to about 800 ppm, about 300 ppm to about 900 ppm, about 300 ppm to about 1,000 ppm, about 400 ppm to about 500 ppm, about 400 ppm to about 600 ppm, about 400 ppm to about 700 ppm, about 400 ppm to about 800 ppm, about 400 ppm to about 900 ppm, about 400 ppm to about 1,000 ppm, about 500 ppm to about 600 ppm, about 500 ppm to about 700 ppm, about 500 ppm to about 800 ppm, about 500 ppm to about 900 ppm, about 500 ppm to about 1,000 ppm, about 600 ppm to about 700 ppm, about 600 ppm to about 800 ppm, about 600 ppm to about 900 ppm, about 600 ppm to about 1,000 ppm, about 700 ppm to about 800 ppm, about 700 ppm to about 900 ppm, about 700 ppm to about 1,000 ppm, about 800 ppm to about 900 ppm, about 800 ppm to about 1,000 ppm, or about 900 ppm to about 1,000 ppm.
18. The composition according to any one of claims 1-17, further comprising, consisting essentially of, or consisting of one or more surfactants which act as foaming agents.
19. A composition comprising, consisting essentially of, or consisting of hypochlorous acid or free available chlorine and one or more surfactants which act as foaming agents.
20. The composition according to claim 19, wherein the hypochlorous acid or free available chlorine is in an amount of 0.00005%, 0.00006%, 0.00007%, 0.000075%, 0.00008%, 0.00009%, 0.0001%, 0.0005%, 0.001%, 0.0015%, 0.002%, 0.0025%, 0.003%, 0.0035%, 0.004%, 0.0045%, 0.005%, 0.0055%, 0.006%, 0.007%, 0.0075%, 0.008%, 0.009%, 0.01%, 0.02%, 0.03%, 0.04% or 0.05% by weight of the composition or at least 0.00005%, at least 0.00006%, at least 0.00007%, at least 0.000075%, at least 0.00008%, at least 0.00009%, at least 0.0001%, at least 0.0005%, at least 0.001%,

at least 0.0015%, at least 0.002%, at least 0.0025%, at least 0.003%, at least 0.0035%, at least 0.004%, at least 0.0045%, at least 0.005%, at least 0.0055%, at least 0.006%, at least 0.007%, at least 0.0075%, at least 0.008%, at least 0.009%, at least 0.01%, at least 0.02%, at least 0.03%, at least 0.04% or at least 0.05% by weight of the composition or at most 0.00005%, at most 0.00006%, at most 0.00007%, at most 0.000075%, at most 0.00008%, at most 0.00009%, at most 0.0001%, at most 0.0005%, at most 0.001%, at most 0.0015%, at most 0.002%, at most 0.0025%, at most 0.003%, at most 0.0035%, at most 0.004%, at most 0.0045%, at most 0.005%, at most 0.0055%, at most 0.006%, at most 0.007%, at most 0.0075%, at most 0.008%, at most 0.009%, at most 0.01%, at most 0.02%, at most 0.03%, at most 0.04% or at most 0.05% by weight of the composition or about 0.00075% to about 0.002%, about 0.00075% to about 0.003%, about 0.00075% to about 0.004%, about 0.00075% to about 0.005%, about 0.00075% to about 0.006%, about 0.00075% to about 0.007%, about 0.00075% to about 0.008%, about 0.00075% to about 0.009%, about 0.00075% to about 0.01%, about 0.001% to about 0.002%, about 0.001% to about 0.003%, about 0.001% to about 0.004%, about 0.001% to about 0.005%, about 0.001% to about 0.006%, about 0.001% to about 0.007%, about 0.001% to about 0.008%, about 0.001% to about 0.009%, about 0.001% to about 0.01%, about 0.002% to about 0.003%, about 0.002% to about 0.004%, about 0.002% to about 0.005%, about 0.002% to about 0.006%, about 0.002% to about 0.007%, about 0.002% to about 0.008%, about 0.002% to about 0.009%, about 0.002% to about 0.01% by weight of the composition

21. The composition according to claim 19, wherein the hypochlorous acid or free available chlorine is in an amount of 0.05 ppm, 0.10 ppm, 0.15 ppm, 0.20 ppm, 0.25 ppm, 0.30 ppm, 0.35 ppm, 0.40 ppm, 0.45 ppm, 0.50 ppm, 0.55 ppm, 0.60 ppm, 0.65 ppm, 0.70 ppm, 0.75 ppm, 0.80 ppm, 0.85 ppm, 0.90 ppm, 0.95 ppm, 1 ppm, 5 ppm, 10 ppm, 15 ppm, 20 ppm, 25 ppm, 30 ppm, 35 ppm, 40 ppm, 45 ppm, 50 ppm, 55 ppm, 60 ppm, 65 ppm, 70 ppm, 75 ppm, 80 ppm, 85 ppm, 90 ppm, 95 ppm, 100 ppm, 125 ppm, 150 ppm, 175 ppm, 200 ppm, 225 ppm, 250 ppm, 275 ppm, 300 ppm, 325 ppm, 350 ppm, 375 ppm, 400 ppm, 425 ppm, 450 ppm, 475 ppm, 500 ppm, 525 ppm, 550 ppm, 575 ppm, 600 ppm, 625 ppm, 650 ppm, 675 ppm, 700 ppm, 725 ppm, 750 ppm, 775 ppm, 800 ppm, 825 ppm, 850 ppm, 875 ppm, 900 ppm, 925 ppm, 950 ppm, 975 ppm, 1,000 ppm, 1,025 ppm, 1,050 ppm, 1,075 ppm, 1,100 ppm, 1,125 ppm, 1,150 ppm, 1,175 ppm, 1,200 ppm, 1,225 ppm, 1,250 ppm, 1,275 ppm, 1,300 ppm, 1,325 ppm, 1,350 ppm, 1,375 ppm, 1,400 ppm, 1,425 ppm, 1,450 ppm, 1,475 ppm, or 1,500 ppm or at least 0.05 ppm, at least 0.10 ppm, at least 0.20 ppm, at least 0.30 ppm, at least 0.40 ppm, at least 0.50 ppm, at least 0.60 ppm, at least 0.70 ppm, at least 0.80 ppm, at least 0.90 ppm, at least 1 ppm, at least 10 ppm, at least 20 ppm, at least 30 ppm, at least 40 ppm, at least 50 ppm, at least 60 ppm, at least 70 ppm, at least 80 ppm, at least 90 ppm, at least 100 ppm, at least 125 ppm, at least 150 ppm, at least 175 ppm, at least 200 ppm, at least 225 ppm, at least 250 ppm, at least 275 ppm, at least 300 ppm, at least 325 ppm, at least 350 ppm, at least 375 ppm, at least 400 ppm, at least 425 ppm, at least 450 ppm, at least 475 ppm, at least 500 ppm, at least 525 ppm, at least 550 ppm, at least 575 ppm, at least 600 ppm, at least 625 ppm, at least 650 ppm, at least 675 ppm, at least 700 ppm, at least 725 ppm, at least 750 ppm, at least 775 ppm, at least 800 ppm, at least 825 ppm, at least 850 ppm, at least 875 ppm, at least 900 ppm, at least 925 ppm, at least 950 ppm, at least 975 ppm, at least 1,000 ppm, at least 1,025 ppm, at least 1,050 ppm, at least 1,075 ppm, at least 1,100 ppm, at least 1,125 ppm, at least

1,150 ppm, at least 1,175 ppm, at least 1,200 ppm, at least 1,225 ppm, at least 1,250 ppm, at least 1,275 ppm, at least 1,300 ppm, at least 1,325 ppm, at least 1,350 ppm, at least 1,375 ppm, at least 1,400 ppm, at least 1,425 ppm, at least 1,450 ppm, at least 1,475 ppm, or at least 1,500 ppm or at most 0.05 ppm, at most 0.10 ppm, at most 0.20 ppm, at most 0.30 ppm, at most 0.40 ppm, at most 0.50 ppm, at most 0.60 ppm, at most 0.70 ppm, at most 0.80 ppm, at most 0.90 ppm, at most 1 ppm, at most 10 ppm, at most 20 ppm, at most 30 ppm, at most 40 ppm, at most 50 ppm, at most 60 ppm, at most 70 ppm, at most 80 ppm, at most 90 ppm, at most 100 ppm, at most 125 ppm, at most 150 ppm, at most 175 ppm, at most 200 ppm, at most 225 ppm, at most 250 ppm, at most 275 ppm, at most 300 ppm, at most 325 ppm, at most 350 ppm, at most 375 ppm, at most 400 ppm, at most 425 ppm, at most 450 ppm, at most 475 ppm, at most 500 ppm, at most 525 ppm, at most 550 ppm, at most 575 ppm, at most 600 ppm, at most 625 ppm, at most 650 ppm, at most 675 ppm, at most 700 ppm, at most 725 ppm, at most 750 ppm, at most 775 ppm, at most 800 ppm, at most 825 ppm, at most 850 ppm, at most 875 ppm, at most 900 ppm, at most 925 ppm, at most 950 ppm, at most 975 ppm, at most 1,000 ppm, at most 1,025 ppm, at most 1,050 ppm, at most 1,075 ppm, at most 1,100 ppm, at most 1,125 ppm, at most 1,150 ppm, at most 1,175 ppm, at most 1,200 ppm, at most 1,225 ppm, at most 1,250 ppm, at most 1,275 ppm, at most 1,300 ppm, at most 1,325 ppm, at most 1,350 ppm, at most 1,375 ppm, at most 1,400 ppm, at most 1,425 ppm, at most 1,450 ppm, at most 1,475 ppm, or at most 1,500 ppm or about 0.5 ppm to about 20 ppm, about 0.5 ppm to about 25 ppm, about 0.5 ppm to about 30 ppm, about 0.5 ppm to about 35 ppm, about 0.5 ppm to about 40 ppm, about 0.5 ppm to about 45 ppm, about 0.5 ppm to about 50 ppm, about 0.5 ppm to about 55 ppm, about 0.5 ppm to about 60 ppm, about 0.5 ppm to about 65 ppm, about 0.5 ppm to about 70 ppm, about 0.5 ppm to about 75 ppm, about 0.5 ppm to about 80 ppm, about 0.5 ppm to about 85 ppm, about 0.5 ppm to about 90 ppm, about 0.5 ppm to about 95 ppm, about 0.5 ppm to about 100 ppm, about 0.75 ppm to about 20 ppm, about 0.75 ppm to about 25 ppm, about 0.75 ppm to about 30 ppm, about 0.75 ppm to about 35 ppm, about 0.75 ppm to about 40 ppm, about 0.75 ppm to about 45 ppm, about 0.75 ppm to about 50 ppm, about 0.75 ppm to about 55 ppm, about 0.75 ppm to about 60 ppm, about 0.75 ppm to about 65 ppm, about 0.75 ppm to about 70 ppm, about 0.75 ppm to about 75 ppm, about 0.75 ppm to about 80 ppm, about 0.75 ppm to about 85 ppm, about 0.75 ppm to about 90 ppm, about 0.75 ppm to about 95 ppm, about 0.75 ppm to about 100 ppm, about 1 ppm to about 20 ppm, about 1 ppm to about 25 ppm, about 1 ppm to about 30 ppm, about 1 ppm to about 35 ppm, about 1 ppm to about 40 ppm, about 1 ppm to about 45 ppm, about 1 ppm to about 50 ppm, about 1 ppm to about 55 ppm, about 1 ppm to about 60 ppm, about 1 ppm to about 65 ppm, about 1 ppm to about 70 ppm, about 1 ppm to about 75 ppm, about 1 ppm to about 80 ppm, about 1 ppm to about 85 ppm, about 1 ppm to about 90 ppm, about 1 ppm to about 95 ppm, about 1 ppm to about 100 ppm, about 5 ppm to about 20 ppm, about 5 ppm to about 25 ppm, about 5 ppm to about 30 ppm, about 5 ppm to about 35 ppm, about 5 ppm to about 40 ppm, about 5 ppm to about 45 ppm, about 5 ppm to about 50 ppm, about 5 ppm to about 55 ppm, about 5 ppm to about 60 ppm, about 5 ppm to about 65 ppm, about 5 ppm to about 70 ppm, about 5 ppm to about 75 ppm, about 5 ppm to about 80 ppm, about 5 ppm to about 85 ppm, about 5 ppm to about 90 ppm, about 5 ppm to about 95 ppm, about 5 ppm to about 100 ppm, about 10 ppm to about 20 ppm, about 10 ppm to about 25 ppm, about 10 ppm to about 30 ppm, about 10 ppm to about 35 ppm, about 10 ppm to about 40 ppm, about 10 ppm to about 45 ppm, about 10 ppm to about 50 ppm, about 10 ppm to about 55 ppm, about 10

[illegible]

ppm, about 375 ppm to about 400 ppm, about 400 ppm to about 500 ppm, about 400 ppm to about 600 ppm, about 400 ppm to about 700 ppm, about 400 ppm to about 800 ppm, about 400 ppm to about 900 ppm, about 400 ppm to about 1,000 ppm, about 400 ppm to about 1,100 ppm, about 400 ppm to about 1,200 ppm, about 400 ppm to about 1,300 ppm, about 400 ppm to about 1,400 ppm, about 400 ppm to about 1,500 ppm, about 500 ppm to about 600 ppm, about 500 ppm to about 700 ppm, about 500 ppm to about 800 ppm, about 500 ppm to about 900 ppm, about 500 ppm to about 1,000 ppm, about 500 ppm to about 1,100 ppm, about 500 ppm to about 1,200 ppm, about 500 ppm to about 1,300 ppm, about 500 ppm to about 1,400 ppm, about 500 ppm to about 1,500 ppm, about 600 ppm to about 700 ppm, about 600 ppm to about 800 ppm, about 600 ppm to about 900 ppm, about 600 ppm to about 1,000 ppm, about 600 ppm to about 1,100 ppm, about 600 ppm to about 1,200 ppm, about 600 ppm to about 1,300 ppm, about 600 ppm to about 1,400 ppm, about 600 ppm to about 1,500 ppm, about 700 ppm to about 800 ppm, about 700 ppm to about 900 ppm, about 700 ppm to about 1,000 ppm, about 700 ppm to about 1,100 ppm, about 700 ppm to about 1,200 ppm, about 700 ppm to about 1,300 ppm, about 700 ppm to about 1,400 ppm, about 700 ppm to about 1,500 ppm, about 800 ppm to about 900 ppm, about 800 ppm to about 1,000 ppm, about 800 ppm to about 1,100 ppm, about 800 ppm to about 1,200 ppm, about 800 ppm to about 1,300 ppm, about 800 ppm to about 1,400 ppm, about 800 ppm to about 1,500 ppm, about 900 ppm to about 1,000 ppm, about 900 ppm to about 1,100 ppm, about 900 ppm to about 1,200 ppm, about 900 ppm to about 1,300 ppm, about 900 ppm to about 1,400 ppm, about 900 ppm to about 1,500 ppm, about 1,000 ppm to about 1,100 ppm, about 1,000 ppm to about 1,200 ppm, about 1,000 ppm to about 1,300 ppm, about 1,000 ppm to about 1,400 ppm, about 1,000 ppm to about 1,500 ppm, about 1,100 ppm to about 1,200 ppm, about 1,100 ppm to about 1,300 ppm, about 1,100 ppm to about 1,400 ppm, about 1,100 ppm to about 1,500 ppm, about 1,200 ppm to about 1,300 ppm, about 1,200 ppm to about 1,400 ppm, about 1,200 ppm to about 1,500 ppm, about 1,300 ppm to about 1,400 ppm, about 1,300 ppm to about 1,500 ppm, or about 1,400 ppm to about 1,500 ppm.

22. The composition according to any one of claims 18-21, wherein the one or more surfactants include one or more ionic surfactants, one or more zwitterionic (amphoteric) surfactants, one or more non-ionic surfactants, one or more biosurfactants, or any combination thereof
23. The composition according to claim 22, wherein the one or more ionic surfactants include one or more anionic surfactants, one or more cationic surfactants, or any combination thereof.
24. The composition according to claim 23, wherein the one or more anionic surfactants include one or more alkyl sulfates, one or more alkyl ether sulfates, one or more docusates like dioctyl sodium sulfosuccinates, one or more sulfonate fluorosurfactants, one or more alkyldiphenyloxide, one or more alkyldiphenyloxide disulfonates, one or more potassium phosphate polyether esters, one or more alkyl benzene sulfonates, one or more alkyl aryl ether phosphates, one or more alkyl ether phosphates, one or more alkyl carboxylates, one or more carboxylate fluorosurfactants, sodium lauroyl sarcosinate, sodium hexyldiphenyl ether sulfonate (DOWFAX™ C6L), or any combination thereof.

25. The composition according to claim 24, wherein the one or more alkyl sulfates include ammonium lauryl sulfate, sodium lauryl sulfate (SDS), or any combination thereof.
26. The composition according to claim 24, wherein the one or more alkyl ether sulfates include sodium laureth sulfate, sodium myreth sulfate, or any combination thereof.
27. The composition according to claim 24, wherein the one or more docusates include dioctyl sodium sulfosuccinate.
28. The composition according to claim 24, wherein the one or more sulfonate fluorosurfactants include perfluorooctanesulfonate (PFOS), perfluorobutanesulfonate, or any combination thereof.
29. The composition according to claim 24, wherein the one or more alkyldiphenyloxide disulfonates include DOWFAX™ 2A1 (Disodium Lauryl Phenyl Ether Disulfonate), DOWFAX™ 3B2 (Disodium Decyl Phenyl Ether Disulfonate), DOWFAX™ C10L (Disodium Decyl Phenyl Ether Disulfonate), DOWFAX™ 2EP, DOWFAX™ 8390 (Disodium Cetyl Phenyl Ether Disulfonate), or any combination thereof.
30. The composition according to claim 24, wherein the one or more potassium phosphate polyether esters include TRITON™ H-55, TRITON™ H-66, or any combination thereof.
31. The composition according to claim 24, wherein the one or more alkyl carboxylates include fatty acid salts, sodium stearate, or any combination thereof.
32. The composition according to claim 24, wherein the one or more carboxylate fluorosurfactants include perfluorononanoate, perfluorooctanoate, or any combination thereof.
33. The composition according to claim 23, wherein the one or more cationic surfactants include one or more quaternary ammonium surfactants, pH-dependent primary amine surfactant, pH-dependent secondary amine surfactant, pH-dependent tertiary amine surfactant, or any combination thereof.
34. The composition according to claim 33, wherein the one or more quaternary ammonium surfactants include benzalkonium chloride (BAC), benzethonium chloride (BZT), benzododecinium bromide (or dimethyldodecylbenzylammonium bromide), bronidox, (or 5-bromo-5-nitro-1,3-dioxane), carbethopendecinium bromide, cetalkonium chloride (CKC), cetrimonium, cetrimide, cetylpyridinium chloride (CPC), cetyl trimethylammonium bromide (CTAB or cetrimonium bromide) and cetyl trimethylammonium chloride (CTAC or cetrimonium chloride), didecyldimethylammonium chloride (DDAC), dioctadecyldimethylammonium bromide (DODAB or dimethyldioctadecylammonium bromide), dioctadecyldimethylammonium chloride (DODAC or dimethyldioctadecylammonium chloride), docosyltrimethylammonium chloride (DCTAC or behentrimonium chloride), dofanium chloride, domiphen bromide, methylbenzethonium chloride, octenidine dihydrochloride, polidronium

chloride, stearalkonium chloride (or dimethylbenzyl octadecyl ammonium), tetraethyl ammonium bromide, tetramethyl ammonium hydroxide (TMAH) and thonzonium bromide, or any combination thereof.

35. The composition according to claim 22, wherein the one or more Zwitterionic surfactants include one or more sultaines one or more betaines, one or more lecithins, 3-[(3-Cholamidopropyl)dimethylammonio]-1-propanesulfonate (CHAPS), or any combination thereof.
36. The composition according to claim 35, wherein the one or more sultaines include cocamidopropyl hydroxysultaine.
37. The composition according to claim 35, wherein the one or more betaines include cocamidopropyl betaine.
38. The composition according to claim 22, wherein the one or more non-ionic surfactants include one or more polyether nonionic surfactants, one or more polyhydroxyl nonionic surfactants, or any combination thereof.
39. The composition according to claim 22, wherein the one or more non-ionic surfactants include one or more alcohol ethoxylates, one or more alkylphenol ethoxylates, one or more phenol ethoxylates, one or more amide ethoxylates, one or more glyceride ethoxylates, one or more fatty acid ethoxylates, one or more fatty amine ethoxylates, or any combination thereof.
40. The composition according to claim 22, wherein the one or more non-ionic surfactants include one or more polyoxyethylene glycol sorbitan alkyl esters (or ethoxylated sorbitol esters), one or more sorbitol esters, one or more polyglycerol esters, one or more ethoxylated polyglycerol esters, one or more alkyl glucosides, one or more ethoxylated alkyl glucosides, one or more sucrose esters, one or more ethoxylated sucrose ester, one or more amine oxides, one or more ethoxylated alcohols, one or more ethoxylated aliphatic alcohols, one or more alkylamines, one or more ethoxylated alkylamines, one or more ethoxylated alkyl phenols, one or more alkyl polysaccharides, one or more ethoxylated alkyl polysaccharides, one or more ethoxylated fatty acids, one or more ethoxylated fatty alcohols, one or more ethoxylated fatty amines, one or more poloxamers (polyethylene-polypropylene copolymers), one or more linear secondary alcohol ethoxylates, one or more alkyl phenol polyglycol ethers, one or more polyethylene glycol alkyl aryl ethers, one or more polyoxyethylene glycol alkyl ethers, one or more polyoxyethylene glycol octylphenol ethers, one or more polyoxyethylene glycol alkylphenol ethers, one or more phenoxypolyethoxylethanols, one or more glucoside alkyl ethers, one or more maltoside alkyl ethers, one or more thioglucoside alkyl ethers, one or more digitonins, one or more glycerol alkyl esters, one or more alkyl aryl polyether sulfates, one or more alcohol sulfonates, one or more sorbitan alkyl esters, one or more glycerol alkyl esters, one or more cocamide ethanolamines, sucrose monolaurate, dodecyl dimethylamine oxide, sodium cholate, 2-dodecoxyethanol (LUBROL®-PX), or any combination thereof.

41. The composition according to claim 40, wherein the one or more polyoxyethylene glycol sorbitan alkyl esters (or ethoxylated sorbitol esters) include polysorbate 20 sorbitan monooleate (TWEEN® 20), polysorbate 40 sorbitan monooleate (TWEEN® 40), polysorbate 60 sorbitan monooleate (TWEEN® 60), polysorbate 61 sorbitan monooleate (TWEEN® 61), polysorbate 65 sorbitan monooleate (TWEEN® 65), polysorbate 80 sorbitan monooleate (TWEEN® 80), polysorbate 81 sorbitan monooleate (TWEEN® 81), polysorbate 85 sorbitan monooleate (TWEEN® 85), or any combination thereof.
42. The composition according to claim 40, wherein the one or more sorbitol esters include sorbitan monooleate, sorbitan monolaurate, sorbitan monopalmitate, sorbitan monostearate, sorbitan tristearate, or any combination thereof.
43. The composition according to claim 40, wherein the one or more polyglycerol esters include glycerol monooleate, glycerol monolaurate, glycerol monopalmitate, glycerol monostearate, glycerol trioleate, glycerol ricinoleate, glycerol tristearate, or any combination thereof.
44. The composition according to claim 40, wherein the one or more alkyl glucosides include arachidyl glucoside, C₁₂₋₂₀ alkyl glucoside, caprylyl/capryl glucoside, cetearyl glucoside, coco-glucoside, ethyl glucoside and lauryl glucoside, decyl glucoside, or any combination thereof.
45. The composition according to claim 40, wherein the one or more sucrose esters include sucrose monooleate, sucrose monolaurate, sucrose monopalmitate, sucrose monostearate, sucrose trioleate, sucrose ricinoleate, sucrose tristearate, sucrose diglycerides, sucrose triacetate, or any combination thereof.
46. The composition according to claim 40, wherein the one or more ethoxylated alkyl phenols include ethoxylated nonyl phenol, ethoxylated octyl phenol, or any combination thereof.
47. The composition according to claim 40, wherein the one or more ethoxylated fatty acids include ethoxylated castor oil.
48. The composition according to claim 40, wherein the one or more ethoxylated fatty alcohols include ethoxylated ceto-oleyl alcohol, ethoxylated ceto-stearyl alcohol, ethoxylated decyl alcohol, ethoxylated dodecyl alcohol, ethoxylated tridecyl alcohol, or any combination thereof.
49. The composition according to claim 40, wherein the one or more poloxamers (polyethylene-polypropylene copolymers) include Poloxamer 124 (PLURONIC® L44), Poloxamer 181 (PLURONIC® L61), Poloxamer 182 (PLURONIC® L62), Poloxamer 184 (PLURONIC® L64), Poloxamer 188 (PLURONIC® F68), Poloxamer 237 (PLURONIC® F87), Poloxamer 338 (PLURONIC® L108), Poloxamer 407 (PLURONIC® F127), or any combination thereof.

50. The composition according to claim 40, wherein the one or more linear secondary alcohol ethoxylates include TERGITOL™ 15-S-5, TERGITOL™ 15-S-7, TERGITOL™ 15-S-9, TERGITOL™ 15-S-12, TERGITOL™ 15-S-15, TERGITOL™ 15-S-20, TERGITOL™ 15-S-30, TERGITOL™ 15-S-40, or any combination thereof.
51. The composition according to claim 40, wherein the one or more polyoxyethylene glycol alkyl ethers include octaethylene glycol monododecyl ether, pentaethylene glycol monododecyl ether, BRIJ® 30, BRIJ® 35, or any combination thereof.
52. The composition according to claim 40, wherein the one or more polyoxyethylene glycol octylphenol ethers include polyoxyethylene (4-5) p-t-octyl phenol (TRITON® X-45), polyoxyethylene octyl phenyl ether (TRITON® X-100), or any combination thereof.
53. The composition according to claim 40, wherein the one or more polyoxyethylene glycol alkylphenol ethers include Nonoxynol-9.
54. The composition according to claim 40, wherein the one or more phenoxypolyethoxylethanols include nonylphenoxypolyethoxylethanol, octylphenoxypolyethoxylethanol (IGEPAL® CA-630 or NONIDET™ P-40), or any combination thereof.
55. The composition according to claim 40, wherein the one or more glucoside alkyl ethers include octyl glucopyranoside.
56. The composition according to claim 40, wherein the one or more maltoside alkyl ethers include dodecyl maltopyranoside.
57. The composition according to claim 40, wherein the one or more thioglucoside alkyl ethers include heptyl thioglucopyranoside.
58. The composition according to claim 40, wherein the one or more glycerol alkyl esters include glyceryl laurate.
59. The composition according to claim 40, wherein the one or more cocamide ethanolamines include cocamide monoethanolamine, cocamide diethanolamine, or any combination thereof.
60. The composition according to claim 22, wherein the one or more biosurfactants include one or more bio-based anionic surfactants, one or more bio-based nonionic surfactants, or any combination thereof.
61. The composition according to claim 60, wherein the one or more bio-based anionic surfactants include STEPONOL® AM 30-KE, an ammonium lauryl sulfate, and STEPONOL® EHS, a sodium 2-ethyl hexyl sulfate, or any combination thereof.

62. The composition according to claim 60, wherein the one or more bio-based nonionic surfactants include STEPOSOL® MET-10U, a metathesis-derived, nonionic surfactant that is an unsaturated, short chain amide.
63. The composition according to any one of claims 18-62, wherein the one or more surfactants are in an amount of aspects of, *e.g.*, about 0.001%, about 0.005%, about 0.0075%, about 0.01%, about 0.05%, about 0.075%, about 0.1%, about 0.2%, about 0.3%, about 0.4%, about 0.5%, about 0.6%, about 0.7%, about 0.8%, about 0.9%, about 1.0%, about 1.5%, about 2.0%, about 2.5%, about 3.0%, about 4.0%, about 5.0%, about 6.0%, about 7.0%, about 7.5%, about 8.0%, about 9.0% or about 10.0% by weight of the composition, or at least 0.001%, at least 0.005%, at least 0.0075%, at least 0.01%, at least 0.05%, at least 0.075%, at least 0.1%, at least 0.25%, at least 0.5%, at least 0.75%, at least 1.0%, at least 1.5%, at least 2.0%, at least 2.5%, at least 3.0%, at least 4.0%, at least 5.0%, at least 6.0%, at least 7.0%, at least 7.5%, at least 8.0%, at least 9.0%, or at least 10.0% by weight of the composition, or at most 0.001%, at most 0.005%, at most 0.0075%, at most 0.01%, at most 0.05%, at most 0.075%, at most 0.1%, at most 0.25%, at most 0.5%, at most 0.75%, at most 1.0%, at most 1.5%, at most 2.0%, at most 2.5%, at most 3.0%, at most 4.0%, at most 5.0%, at most 6.0%, at most 7.5%, at most 8.0%, at most 9.0% or at most 10.0% by weight of the composition, or about 0.001% to about 0.005%, about 0.001% to about 0.0075%, about 0.001% to about 0.01%, about 0.001% to about 0.025%, about 0.001% to about 0.05%, about 0.001% to about 0.075%, about 0.001% to about 0.1%, about 0.001% to about 0.25%, about 0.001% to about 0.75%, about 0.001% to about 1.0%, about 0.005% to about 0.075%, about 0.005% to about 0.1%, about 0.005% to about 0.25%, about 0.005% to about 0.75%, about 0.005% to about 1.0%, about 0.01% to about 0.05%, about 0.01% to about 0.75%, about 0.01% to about 1.0%, about 0.01% to about 2.5%, about 0.01% to about 5.0%, about 0.01% to about 10.0%, about 0.05% to about 0.1%, about 0.05% to about 0.25%, about 0.05% to about 0.5%, about 0.05% to about 0.75%, about 0.05% to about 1.0%, about 0.05% to about 1.5%, about 0.05% to about 2.0%, about 0.05% to about 2.5%, about 0.05% to about 3.0%, about 0.05% to about 4.0%, about 0.05% to about 5.0%, about 0.05% to about 6.0%, about 0.05% to about 7.0%, about 0.05% to about 8.0%, about 0.05% to about 9.0%, about 0.05% to about 10.0%, about 0.1% to about 0.25%, about 0.1% to about 0.5%, about 0.1% to about 0.75%, about 0.1% to about 1.0%, about 0.1% to about 1.5%, about 0.1% to about 2.0%, about 0.1% to about 2.5%, about 0.1% to about 3.0%, about 0.1% to about 4.0%, about 0.1% to about 5.0%, about 0.1% to about 6.0%, about 0.1% to about 7.0%, about 0.1% to about 8.0%, about 0.1% to about 9.0%, about 0.1% to about 10.0%, about 0.2% to about 0.5%, about 0.2% to about 0.75%, about 0.2% to about 1.0%, about 0.2% to about 1.5%, about 0.2% to about 2.0%, about 0.2% to about 2.5%, about 0.2% to about 3.0%, about 0.2% to about 4.0%, about 0.2% to about 5.0%, about 0.2% to about 6.0%, about 0.2% to about 7.0%, about 0.2% to about 8.0%, about 0.2% to about 9.0%, about 0.2% to about 10.0%, about 0.5% to about 1.0%, about 0.5% to about 1.5%, about 0.5% to about 2.0%, about 0.5% to about 2.5%, about 0.5% to about 3.0%, about 0.5% to about 4.0%, about 0.5% to about 5.0%, about 0.5% to about 6.0%, about 0.5% to about 7.0%, about 0.5% to about 8.0%, about 0.5% to about 9.0%, about 0.5% to about 10.0%, about 1.0% to about 2.5%, about 1.0% to about 3.0%, about 1.0% to about 4.0%, about 1.0% to about 5.0%, about 1.0% to about 6.0%, about 1.0% to about 7.0%, about 1.0% to about 7.5%, about 1.0% to about 8.0%, about 1.0% to about 9.0%, about 1.0% to about 10.0%, about 2.0% to about 2.5%, about 2.0% to about 3.0%, about 2.0% to about 4.0%, about 2.0% to about 5.0%, about 2.0% to about 6.0%,

about 2.0% to about 7.0%, about 2.0% to about 7.5%, about 2.0% to about 8.0%, about 2.0% to about 9.0%, about 2.0% to about 10.0%, about 5.0% to about 6.0%, about 5.0% to about 7.0%, about 5.0% to about 7.5%, about 5.0% to about 8.0%, about 5.0% to about 9.0%, about 5.0% to about 10.0%, about 5.0% to about 11.0%, about 5.0% to about 12.0%, about 5.0% to about 13.0%, about 5.0% to about 14.0%, about 5.0% to about 15.0%, about 6.0% to about 7.0%, about 6.0% to about 7.5%, about 6.0% to about 8.0%, about 6.0% to about 9.0%, about 6.0% to about 10.0%, about 6.0% to about 11.0%, about 6.0% to about 12.0%, about 6.0% to about 13.0%, about 6.0% to about 14.0% or about 6.0% to about 15.0% by weight of the composition.

63. A composition comprising, consisting essentially of, or consisting of one or more guanide-containing compounds and one or more alcohols.
64. The composition according to claim 63, wherein the one or more guanide-containing compounds comprise, consist essentially of, or consist of a biguanide, a biguanide-containing compound, a biguanidine, a biguanidine-containing compound, a triguanide, a triguanide-containing compound, or any combination thereof.
65. The composition according to claim 64, wherein the one or more biguanide-containing compounds include a polyhexamethylene biguanide (PHMB), a polyaminopropyl biguanide (PAPB), a 1,1'-(1,6-Hexanediyl)bis{2-[N'-(2-ethylhexyl)carbamimidoyl]guanidine} (alexidine), a chlorhexidine, a chlorhexidine gluconate, or any combination thereof.
66. The composition according to any one of claims 63-65, wherein the one or more alcohols is methanol, ethanol, propanol, isopropanol, butanol, pentanol, and 1-hexadecanol.
67. The composition according to any one of claims 63-66, wherein the one or more guanide-containing compounds are in an amount of about 0.01%, about 0.05%, about 0.075%, about 0.1%, about 0.2%, about 0.3%, about 0.4%, about 0.5%, about 0.6%, about 0.7%, about 0.8%, about 0.9%, about 1.0%, about 1.5%, about 2.0%, about 2.5%, about 3.0%, about 4.0%, about 5.0%, about 6.0%, about 6.5%, about 7.0%, about 7.5%, about 8.0%, about 8.5%, about 9.0%, about 9.5%, about 10.0%, about 11%, about 12%, about 13%, about 14%, about 15%, about 20%, about 25%, or about 30% by weight of the composition, or at least 0.01%, at least 0.05%, at least 0.075%, at least 0.1%, at least 0.25%, at least 0.5%, at least 0.75%, at least 1.0%, at least 1.5%, at least 2.0%, at least 2.5%, at least 3.0%, at least 4.0%, at least 5.0%, at least 6.0%, at least 7.0%, at least 7.5%, at least 8.0%, at least 9.0%, at least 10.0%, at least 11%, at least 12%, at least 13%, at least 14%, at least 15%, at least 20%, at least 25%, or at least 30% by weight of the composition, or at most 0.01%, at most 0.05%, at most 0.075%, at most 0.1%, at most 0.25%, at most 0.5%, at most 0.75%, at most 1.0%, at most 1.5%, at most 2.0%, at most 2.5%, at most 3.0%, at most 4.0%, at most 5.0%, at most 6.0%, at most 7.5%, at most 8.0%, at most 9.0%, at most 10.0%, at most 11%, at most 12%, at most 13%, at most 14%, at most 15%, at most 20%, at most 25%, or at most 30% by weight of the composition, or about 0.1% to about 0.5%, about 0.1% to about 0.75%, about 0.1% to about 1.0%, about 0.1% to about 1.5%, about 0.1% to about

2.0%, about 0.1% to about 2.5%, about 0.1% to about 3.0%, about 0.1% to about 3.5%, about 0.1% to about 4.0%, about 0.1% to about 4.5%, about 0.1% to about 5.0%, about 0.2% to about 0.5%, about 0.2% to about 0.75%, about 0.2% to about 1.0%, about 0.2% to about 1.5%, about 0.2% to about 2.0%, about 0.2% to about 2.5%, about 0.2% to about 3.0%, about 0.2% to about 3.5%, about 0.2% to about 4.0%, about 0.2% to about 4.5%, about 0.2% to about 5.0%, about 0.5% to about 1.0%, about 0.5% to about 1.5%, about 0.5% to about 2.0%, about 0.5% to about 2.5%, about 0.5% to about 3.0%, about 0.5% to about 4.0%, about 0.5% to about 5.0%, about 0.5% to about 6.0%, about 0.5% to about 7.0%, about 0.5% to about 8.0%, about 0.5% to about 9.0%, about 0.5% to about 10.0%, about 1.0% to about 2.5%, about 1.0% to about 3.0%, about 1.0% to about 4.0%, about 1.0% to about 5.0%, about 1.0% to about 6.0%, about 1.0% to about 7.0%, about 1.0% to about 7.5%, about 1.0% to about 8.0%, about 1.0% to about 9.0%, about 1.0% to about 10.0%, about 1.0% to about 15.0%, about 1.0% to about 20.0%, about 1.0% to about 25.0%, about 1.0% to about 30.0%, about 2.0% to about 2.5%, about 2.0% to about 3.0%, about 2.0% to about 4.0%, about 2.0% to about 5.0%, about 2.0% to about 6.0%, about 2.0% to about 7.0%, about 2.0% to about 7.5%, about 2.0% to about 8.0%, about 2.0% to about 9.0%, about 2.0% to about 10.0%, about 2.0% to about 15.0%, about 2.0% to about 20.0%, about 2.0% to about 25.0%, about 2.0% to about 30.0%, about 5.0% to about 6.0%, about 5.0% to about 7.0%, about 5.0% to about 7.5%, about 5.0% to about 8.0%, about 5.0% to about 9.0%, about 5.0% to about 10.0%, about 5.0% to about 11.0%, about 5.0% to about 12.0%, about 5.0% to about 13.0%, about 5.0% to about 14.0%, about 5.0% to about 15.0%, about 5.0% to about 20.0%, about 5.0% to about 25.0%, about 5.0% to about 30.0%, about 6.0% to about 7.0%, about 6.0% to about 7.5%, about 6.0% to about 8.0%, about 6.0% to about 9.0%, about 6.0% to about 10.0%, about 6.0% to about 11.0%, about 6.0% to about 12.0%, about 6.0% to about 13.0%, about 6.0% to about 14.0%, about 6.0% to about 15.0%, about 6.0% to about 20.0%, about 6.0% to about 25.0%, about 6.0% to about 30.0%, about 7.0% to about 8.0%, about 7.0% to about 9.0%, about 7.0% to about 10.0%, about 7.0% to about 11.0%, about 7.0% to about 12.0%, about 7.0% to about 13.0%, about 7.0% to about 14.0%, about 7.0% to about 15.0%, about 7.0% to about 20.0%, about 7.0% to about 25.0%, about 7.0% to about 30.0%, about 8.0% to about 9.0%, about 8.0% to about 10.0%, about 8.0% to about 11.0%, about 8.0% to about 12.0%, about 8.0% to about 13.0%, about 8.0% to about 14.0%, about 8.0% to about 15.0%, about 8.0% to about 20.0%, about 8.0% to about 25.0%, about 8.0% to about 30.0%, about 9.0% to about 10.0%, about 9.0% to about 11.0%, about 9.0% to about 12.0%, about 9.0% to about 13.0%, about 9.0% to about 14.0%, about 9.0% to about 15.0%, about 9.0% to about 20.0%, about 9.0% to about 25.0%, about 9.0% to about 30.0%, about 10.0% to about 11.0%, about 10.0% to about 12.0%, about 10.0% to about 13.0%, about 10.0% to about 14.0%, about 10.0% to about 15.0%, about 10.0% to about 20.0%, about 10.0% to about 25.0%, about 10.0% to about 30.0%, about 15.0% to about 20.0%, about 15.0% to about 25.0%, about 15.0% to about 30.0%, about 20.0% to about 25.0%, about 20.0% to about 30.0%, or about 20.0% to about 30.0%, by weight of the composition.

68. The composition according to any one of claims 63-67, wherein the one or more alcohols are in an amount of about 5%, about 10%, about 15%, about 20%, about 25%, about 30%, about 35%, about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, about 96%, about 97%, about 98%, or about 99%, by weight of the

composition, or at least 5%, at least 10%, at least 15%, at least 20%, at least 25%, at least 30%, at least 35%, at least 40%, at least 45%, at least 50%, at least 55%, at least 60%, at least 65%, at least 70%, at least 75%, at least 80%, at least 85%, at least 90%, at least 95%, at least 96%, at least 97%, at least 98%, or at least 99%, by weight of the composition, or at most 5%, at most 10%, at most 15%, at most 20%, at most 25%, at most 30%, at most 35%, at most 40%, at most 45%, at most 50%, at most 55%, at most 60%, at most 65%, at most 70%, at most 75%, at most 80%, at most 85%, at most 90%, at most 95%, at most 96%, at most 97%, at most 98%, or at most 99%, by weight of the composition, or about 5% to about 10%, about 5% to about 20%, about 5% to about 30%, about 5% to about 40%, about 5% to about 50%, about 5% to about 60%, about 5% to about 70%, about 5% to about 80%, about 5% to about 90%, about 5% to about 95%, about 5% to about 97%, about 5% to about 99%, about 10% to about 20%, about 10% to about 30%, about 10% to about 40%, about 10% to about 50%, about 10% to about 60%, about 10% to about 70%, about 10% to about 80%, about 10% to about 90%, about 10% to about 95%, about 10% to about 97%, about 10% to about 99%, about 20% to about 30%, about 20% to about 40%, about 20% to about 50%, about 20% to about 60%, about 20% to about 70%, about 20% to about 80%, about 20% to about 90%, about 20% to about 95%, about 20% to about 97%, about 20% to about 99%, about 30% to about 40%, about 30% to about 50%, about 30% to about 60%, about 30% to about 70%, about 30% to about 80%, about 30% to about 90%, about 30% to about 95%, about 30% to about 97%, about 30% to about 99%, about 35% to about 40%, about 35% to about 50%, about 35% to about 60%, about 35% to about 70%, about 35% to about 80%, about 35% to about 90%, about 35% to about 95%, about 35% to about 97%, about 35% to about 99%, about 40% to about 50%, about 40% to about 60%, about 40% to about 70%, about 40% to about 80%, about 40% to about 90%, about 40% to about 95%, about 40% to about 97%, about 40% to about 99%, about 45% to about 50%, about 45% to about 60%, about 45% to about 70%, about 45% to about 80%, about 45% to about 90%, about 45% to about 95%, about 45% to about 97%, about 45% to about 99%, about 50% to about 60%, about 50% to about 70%, about 50% to about 80%, about 50% to about 90%, about 50% to about 95%, about 50% to about 97%, about 50% to about 99%, about 60% to about 70%, about 60% to about 80%, about 60% to about 90%, about 60% to about 95%, about 60% to about 97%, about 60% to about 99%, about 70% to about 80%, about 70% to about 90%, about 70% to about 95%, about 70% to about 97%, about 70% to about 99%, about 80% to about 90%, about 80% to about 95%, about 80% to about 97%, about 80% to about 99%, about 90% to about 95%, about 90% to about 97%, about 90% to about 99%, by weight of the composition.

69. A composition comprising, consisting essentially of, or consisting of one or more guanide-containing compounds.
70. The composition according to claim 69, wherein the one or more guanide-containing compounds comprise, consist essentially of, or consist of a biguanide, a biguanide-containing compound, a biguanidine, a biguanidine-containing compound, a triguanide, a triguanide-containing compound, or any combination thereof.

71. The composition according to claim 70, wherein the one or more biguanide-containing compounds include a polyhexamethylene biguanide (PHMB), a polyaminopropyl biguanide (PAPB), a 1,1'-(1,6-Hexanediyl)bis{2-[N'-(2-ethylhexyl)carbamimidoyl]guanidine} (alexidine), a chlorhexidine, a chlorhexidine gluconate, or any combination thereof.
72. The composition according to any one of claims 69-71, wherein the one or more alcohols is methanol, ethanol, propanol, isopropanol, butanol, pentanol, and 1-hexadecanol.
73. The composition according to any one of claims 69-72, wherein the one or more guanide-containing compounds are in an amount of about 0.01%, about 0.05%, about 0.075%, about 0.1%, about 0.2%, about 0.3%, about 0.4%, about 0.5%, about 0.6%, about 0.7%, about 0.8%, about 0.9%, about 1.0%, about 1.5%, about 2.0%, about 2.5%, about 3.0%, about 4.0%, about 5.0%, about 6.0%, about 6.5%, about 7.0%, about 7.5%, about 8.0%, about 8.5%, about 9.0%, about 9.5%, about 10.0%, about 11%, about 12%, about 13%, about 14%, about 15%, about 20%, about 25%, or about 30% by weight of the composition, or at least 0.01%, at least 0.05%, at least 0.075%, at least 0.1%, at least 0.25%, at least 0.5%, at least 0.75%, at least 1.0%, at least 1.5%, at least 2.0%, at least 2.5%, at least 3.0%, at least 4.0%, at least 5.0%, at least 6.0%, at least 7.0%, at least 7.5%, at least 8.0%, at least 9.0%, at least 10.0%, at least 11%, at least 12%, at least 13%, at least 14%, at least 15%, at least 20%, at least 25%, or at least 30% by weight of the composition, or at most 0.01%, at most 0.05%, at most 0.075%, at most 0.1%, at most 0.25%, at most 0.5%, at most 0.75%, at most 1.0%, at most 1.5%, at most 2.0%, at most 2.5%, at most 3.0%, at most 4.0%, at most 5.0%, at most 6.0%, at most 7.5%, at most 8.0%, at most 9.0%, at most 10.0%, at most 11%, at most 12%, at most 13%, at most 14%, at most 15%, at most 20%, at most 25%, or at most 30% by weight of the composition, or about 0.1% to about 0.5%, about 0.1% to about 0.75%, about 0.1% to about 1.0%, about 0.1% to about 1.5%, about 0.1% to about 2.0%, about 0.1% to about 2.5%, about 0.1% to about 3.0%, about 0.1% to about 3.5%, about 0.1% to about 4.0%, about 0.1% to about 4.5%, about 0.1% to about 5.0%, about 0.2% to about 0.5%, about 0.2% to about 0.75%, about 0.2% to about 1.0%, about 0.2% to about 1.5%, about 0.2% to about 2.0%, about 0.2% to about 2.5%, about 0.2% to about 3.0%, about 0.2% to about 3.5%, about 0.2% to about 4.0%, about 0.2% to about 4.5%, about 0.2% to about 5.0%, about 0.5% to about 1.0%, about 0.5% to about 1.5%, about 0.5% to about 2.0%, about 0.5% to about 2.5%, about 0.5% to about 3.0%, about 0.5% to about 4.0%, about 0.5% to about 5.0%, about 0.5% to about 6.0%, about 0.5% to about 7.0%, about 0.5% to about 8.0%, about 0.5% to about 9.0%, about 0.5% to about 10.0%, about 1.0% to about 2.5%, about 1.0% to about 3.0%, about 1.0% to about 4.0%, about 1.0% to about 5.0%, about 1.0% to about 6.0%, about 1.0% to about 7.0%, about 1.0% to about 7.5%, about 1.0% to about 8.0%, about 1.0% to about 9.0%, about 1.0% to about 10.0%, about 1.0% to about 15.0%, about 1.0% to about 20.0%, about 1.0% to about 25.0%, about 1.0% to about 30.0%, about 2.0% to about 2.5%, about 2.0% to about 3.0%, about 2.0% to about 4.0%, about 2.0% to about 5.0%, about 2.0% to about 6.0%, about 2.0% to about 7.0%, about 2.0% to about 7.5%, about 2.0% to about 8.0%, about 2.0% to about 9.0%, about 2.0% to about 10.0%, about 2.0% to about 15.0%, about 2.0% to about 20.0%, about 2.0% to about 25.0%, about 2.0% to about 30.0%, about 5.0% to about 6.0%, about 5.0% to about 7.0%, about 5.0% to about 7.5%, about 5.0% to about 8.0%, about 5.0% to about 9.0%, about 5.0% to about 10.0%,

about 5.0% to about 11.0%, about 5.0% to about 12.0%, about 5.0% to about 13.0%, about 5.0% to about 14.0%, about 5.0% to about 15.0%, about 5.0% to about 20.0%, about 5.0% to about 25.0%, about 5.0% to about 30.0%, about 6.0% to about 7.0%, about 6.0% to about 7.5%, about 6.0% to about 8.0%, about 6.0% to about 9.0%, about 6.0% to about 10.0%, about 6.0% to about 11.0%, about 6.0% to about 12.0%, about 6.0% to about 13.0%, about 6.0% to about 14.0%, about 6.0% to about 15.0%, about 6.0% to about 20.0%, about 6.0% to about 25.0%, about 6.0% to about 30.0%, about 7.0% to about 8.0%, about 7.0% to about 9.0%, about 7.0% to about 10.0%, about 7.0% to about 11.0%, about 7.0% to about 12.0%, about 7.0% to about 13.0%, about 7.0% to about 14.0%, about 7.0% to about 15.0%, about 7.0% to about 20.0%, about 7.0% to about 25.0%, about 7.0% to about 30.0%, about 8.0% to about 9.0%, about 8.0% to about 10.0%, about 8.0% to about 11.0%, about 8.0% to about 12.0%, about 8.0% to about 13.0%, about 8.0% to about 14.0%, about 8.0% to about 15.0%, about 8.0% to about 20.0%, about 8.0% to about 25.0%, about 8.0% to about 30.0%, about 9.0% to about 10.0%, about 9.0% to about 11.0%, about 9.0% to about 12.0%, about 9.0% to about 13.0%, about 9.0% to about 14.0%, about 9.0% to about 15.0%, about 9.0% to about 20.0%, about 9.0% to about 25.0%, about 9.0% to about 30.0%, about 10.0% to about 11.0%, about 10.0% to about 12.0%, about 10.0% to about 13.0%, about 10.0% to about 14.0%, about 10.0% to about 15.0%, about 10.0% to about 20.0%, about 10.0% to about 25.0%, about 10.0% to about 30.0%, about 15.0% to about 20.0%, about 15.0% to about 25.0%, about 15.0% to about 30.0%, about 20.0% to about 25.0%, about 20.0% to about 30.0%, or about 20.0% to about 30.0%, by weight of the composition.

74. The composition according to any one of claims 1-73, further comprising, consisting essentially of, or consisting of one or more carriers.
75. The composition according to claim 74, wherein the one or more carrier includes an aqueous carrier, a semi-solid carrier, a solid carrier, or any combination thereof.
76. The composition according to claim 74 or 75, wherein the one or more carriers includes water, a vegetable oil, a mineral oil, an ester oil, an ether, one or more alcohols, a fatty alcohol, an isoparaffin, a hydrocarbon oil, a polyol, a wax, or any combination thereof.
77. The composition according to claim 76, wherein the ester oil includes octal palmitate, isopropyl myristate or isopropyl palmitate.
78. The composition according to claim 76, wherein the ether includes dicapryl ether or dimethyl isosorbide.
79. The composition according to claim 76, wherein the alcohol includes ethanol or isopropanol.
80. The composition according to claim 76, wherein the fatty alcohol includes cetyl alcohol, cetearyl alcohol, stearyl alcohol or behenyl alcohol.

81. The composition according to claim 76, wherein the isoparaffin includes isooctane, isododecane (IDD) or isohexadecane.
82. The composition according to claim 76, wherein the hydrocarbon oil includes mineral oil, petrolatum, isoeicosane or a polyolefin.
83. The composition according to claim 76, wherein the polyol includes propylene glycol, glycerin, butylene glycol, pentylene glycol, hexylene glycol, or caprylyl glycol.
84. The composition according to claim 76, wherein the wax includes beeswax, carnauba, ozokerite, microcrystalline wax, polyethylene wax, or a botanical wax.
85. The composition according to any one of claims 74-84, wherein the one or more carriers are in an amount of at least 25%, at least 30%, at least 35%, at least 40%, at least 45%, at least 50%, at least 55%, at least 60%, at least 65%, at least 70%, at least 75%, at least 80%, at least 85%, at least 90%, at least 95%, at least 96%, at least 97%, at least 98% or at least 99% by weight of the composition or at most 25%, at most 30%, at most 35%, at most 40%, at most 45%, at most 50%, at most 55%, at most 60%, at most 65%, at most 70%, at most 75%, at most 80%, at most 85%, at most 90%, at most 95%, at most 96%, at most 97%, at most 98% or at most 99% by weight of the composition or about 25% to about 50%, about 25% to about 75%, about 25% to about 90%, about 25% to about 95%, about 25% to about 96%, about 25% to about 97%, about 25% to about 98%, about 25% to about 99%, about 50% to about 75%, about 50% to about 90%, about 50% to about 95%, about 50% to about 96%, about 50% to about 97%, about 50% to about 98%, about 50% to about 99%, about 75% to about 80%, about 75% to about 85%, about 75% to about 90%, about 75% to about 95%, about 75% to about 96%, about 75% to about 97%, about 75% to about 98%, about 75% to about 99%, about 80% to about 85%, about 80% to about 90%, about 80% to about 95%, about 80% to about 96%, about 80% to about 97%, about 80% to about 98%, about 80% to about 99%, about 85% to about 90%, about 85% to about 95%, about 85% to about 96%, about 85% to about 97%, about 85% to about 98%, about 85% to about 99%, about 90% to about 95%, about 90% to about 96%, about 90% to about 97%, about 90% to about 98%, about 90% to about 99%, or about 95% to about 99%, by weight of the composition.
86. The composition according to any one of claims 1-85, further comprising, consisting essentially of, or consisting of one or more additional ingredients.
87. The composition according to claim 86, wherein the one or more additional ingredient includes a preservative, a chelating agent, or any combination thereof.
88. The composition according to any one of claims 1-87, having a pH of about 2 to about 5, about 2 to about 5.5, about 2 to about 6, about 2 to about 6.5, about 2 to about 7, about 2 to about 7.5, about 2 to about 8, about 2 to about 8.5, about 2 to about 9, about 2.5 to about 5, about 2.5 to about 5.5, about 2.5 to about 6, about 2.5 to about 6.5, about 2.5 to about 7, about 2.5 to about 7.5, about 2.5 to about

8, about 2.5 to about 8.5, about 2.5 to about 9, about 3 to about 5, about 3 to about 5.5, about 3 to about 6, about 3 to about 6.5, about 3 to about 7, about 3 to about 7.5, about 3 to about 8, about 3 to about 8.5, about 3 to about 9, about 3.5 to about 5, about 3.5 to about 5.5, about 3.5 to about 6, about 3.5 to about 6.5, about 3.5 to about 7, about 3.5 to about 7.5, about 3.5 to about 8, about 3.5 to about 8.5, about 3.5 to about 9, about 4 to about 5, about 4 to about 5.5, about 4 to about 6, about 4 to about 6.5, about 4 to about 7, about 4 to about 7.5, about 4 to about 8, about 4 to about 8.5, about 4 to about 9, about 4.5 to about 5, about 4.5 to about 5.5, about 4.5 to about 6, about 4.5 to about 6.5, about 4.5 to about 7, about 4.5 to about 7.5, about 4.5 to about 8, about 4.5 to about 8.5, about 4.5 to about 9, about 5 to about 5.5, about 5 to about 6, about 5 to about 6.5, about 5 to about 7, about 5 to about 7.5, about 5 to about 8, about 5 to about 8.5, about 5 to about 9, about 5.5 to about 6, about 5.5 to about 6.5, about 5.5 to about 7, about 5.5 to about 7.5, about 5.5 to about 8, about 5.5 to about 8.5, about 5.5 to about 9, about 6 to about 6.5, about 6 to about 7, about 6 to about 7.5, about 6 to about 8, about 6 to about 8.5, about 6 to about 9, about 6.5 to about 7, about 6.5 to about 7.5, about 6.5 to about 8, about 6.5 to about 8.5, about 6.5 to about 9, about 7 to about 7.5, about 7 to about 8, about 7 to about 8.5, about 7 to about 9, about 7.5 to about 8, about 7.5 to about 8.5, about 7.5 to about 9, about 8 to about 8.5, about 8 to about 9, or about 8.5 to about 9.

89. The composition according to any one of claims 1-87, having a pH of about 6 to about 8, about 6.7 to about 7.7, about 6.8 to about 7.6, about 6.9 to about 7.5, about 7.0 to about 7.4, about 7.1 to about 7.3, or about 7.2.
90. The composition according to any one of claims 1-87, having a pH of about 5.0 to about 6.5, about 5.2 to about 6.2, about 5.3 to about 6.1, about 5.4 to about 6.0, about 5.5 to about 5.9, about 5.6 to about 5.8, or about 5.7.
91. The composition according to any one of claims 1-87, having a pH of about 5.3 to about 6.8, about 5.5 to about 6.5, about 5.6 to about 6.4, about 5.7 to about 6.3, about 5.8 to about 6.2, about 5.9 to about 6.1, or about 6.0.
92. The composition according to any one of claims 1-91, having a stability of about 1 day, about 2 days, 3 days, 4 days, 5 days, 6, days, 7 days, 8 days, 9 days, 10 days, 11 days, 12 days, 13 days, 14 days or 15 days or at least 1 day, at least 2 days, at least 3 days, at least 4 days, at least 5 days, at least 6, days, at least 7 days, at least 8 days, at least 9 days, at least 10 days, at least 11 days, at least 12 days, at least 13 days, at least 14 days or at least 15 days or at most 1 day, at most 2 days, at most 3 days, at most 4 days, at most 5 days, at most 6, days, at most 7 days, at most 8 days, at most 9 days, at most 10 days, at most 11 days, at most 12 days, at most 13 days, at most 14 days or at most 15 days or about 1 day to about 2 days, about 1 day to about 3 days, about 1 day to about 4 days, about 1 day to about 5 days, about 1 day to about 6 days, about 1 day to about 7 days, about 1 day to about 8 days, about 1 day to about 9 days, about 1 day to about 10 days, about 1 day to about 11 days, about 1 day to about 12 days, about 1 day to about 13 days, about 1 day to about 14 days, about 1 day to about 15 days, about 2 days to about 3 days, about 2 days to about 4 days, about 2 days to about 5

days, about 2 days to about 6 days, about 2 days to about 7 days, about 2 days to about 8 days, about 2 days to about 9 days, about 2 days to about 10 days, about 2 days to about 11 days, about 2 days to about 12 days, about 2 days to about 13 days, about 2 days to about 14 days, about 2 days to about 15 days, about 3 days to about 4 days, about 3 days to about 5 days, about 3 days to about 6 days, about 3 days to about 7 days, about 3 days to about 8 days, about 3 days to about 9 days, about 3 days to about 10 days, about 3 days to about 11 days, about 3 days to about 12 days, about 3 days to about 13 days, about 3 days to about 14 days, about 3 days to about 15 days, about 4 days to about 5 days, about 4 days to about 6 days, about 4 days to about 7 days, about 4 days to about 8 days, about 4 days to about 9 days, about 4 days to about 10 days, about 4 days to about 11 days, about 4 days to about 12 days, about 4 days to about 13 days, about 4 days to about 14 days, about 4 days to about 15 days, about 5 days to about 6 days, about 5 days to about 7 days, about 5 days to about 8 days, about 5 days to about 9 days, about 5 days to about 10 days, about 5 days to about 11 days, about 5 days to about 12 days, about 5 days to about 13 days, about 5 days to about 14 days, about 5 days to about 15 days, about 6 days to about 7 days, about 6 days to about 8 days, about 6 days to about 9 days, about 6 days to about 10 days, about 6 days to about 11 days, about 6 days to about 12 days, about 6 days to about 13 days, about 6 days to about 14 days, about 6 days to about 15 days, about 7 days to about 8 days, about 7 days to about 9 days, about 7 days to about 10 days, about 7 days to about 11 days, about 7 days to about 12 days, about 7 days to about 13 days, about 7 days to about 14 days, about 7 days to about 15 days, about 8 days to about 9 days, about 8 days to about 10 days, about 8 days to about 11 days, about 8 days to about 12 days, about 8 days to about 13 days, about 8 days to about 14 days, about 8 days to about 15 days, about 9 days to about 10 days, about 9 days to about 11 days, about 9 days to about 12 days, about 9 days to about 13 days, about 9 days to about 14 days, about 9 days to about 15 days, about 10 days to about 11 days, about 10 days to about 12 days, about 10 days to about 13 days, about 10 days to about 14 days, about 10 days to about 15 days, about 11 days to about 12 days, about 11 days to about 13 days, about 11 days to about 14 days, about 11 days to about 15 days, about 12 days to about 13 days, about 12 days to about 14 days, about 12 days to about 15 days, about 13 days to about 14 days, about 13 days to about 15 days, or about 14 days to about 15 days.

93. The composition according to any one of claims 1-91, having a stability of about 1 week, about 2 weeks, 3 weeks, 4 weeks, 5 weeks, 6, weeks, 7 weeks, 8 weeks, 9 weeks, 10 weeks, 11 weeks, 12 weeks, 13 weeks, 14 weeks or 15 weeks or at least 1 week, at least 2 weeks, at least 3 weeks, at least 4 weeks, at least 5 weeks, at least 6, weeks, at least 7 weeks, at least 8 weeks, at least 9 weeks, at least 10 weeks, at least 11 weeks, at least 12 weeks, at least 13 weeks, at least 14 weeks or at least 15 weeks or at most 1 week, at most 2 weeks, at most 3 weeks, at most 4 weeks, at most 5 weeks, at most 6, weeks, at most 7 weeks, at most 8 weeks, at most 9 weeks, at most 10 weeks, at most 11 weeks, at most 12 weeks, at most 13 weeks, at most 14 weeks or at most 15 weeks or about 1 week to about 2 weeks, about 1 week to about 3 weeks, about 1 week to about 4 weeks, about 1 week to about 5 weeks, about 1 week to about 6 weeks, about 1 week to about 7 weeks, about 1 week to about 8 weeks, about 1 week to about 9 weeks, about 1 week to about 10 weeks, about 1 week to about 11 weeks, about 1 week to about 12 weeks, about 1 week to about 13 weeks, about 1 week to about 14

weeks, about 1 week to about 15 weeks, about 2 weeks to about 3 weeks, about 2 weeks to about 4 weeks, about 2 weeks to about 5 weeks, about 2 weeks to about 6 weeks, about 2 weeks to about 7 weeks, about 2 weeks to about 8 weeks, about 2 weeks to about 9 weeks, about 2 weeks to about 10 weeks, about 2 weeks to about 11 weeks, about 2 weeks to about 12 weeks, about 2 weeks to about 13 weeks, about 2 weeks to about 14 weeks, about 2 weeks to about 15 weeks, about 3 weeks to about 4 weeks, about 3 weeks to about 5 weeks, about 3 weeks to about 6 weeks, about 3 weeks to about 7 weeks, about 3 weeks to about 8 weeks, about 3 weeks to about 9 weeks, about 3 weeks to about 10 weeks, about 3 weeks to about 11 weeks, about 3 weeks to about 12 weeks, about 3 weeks to about 13 weeks, about 3 weeks to about 14 weeks, about 3 weeks to about 15 weeks, about 4 weeks to about 5 weeks, about 4 weeks to about 6 weeks, about 4 weeks to about 7 weeks, about 4 weeks to about 8 weeks, about 4 weeks to about 9 weeks, about 4 weeks to about 10 weeks, about 4 weeks to about 11 weeks, about 4 weeks to about 12 weeks, about 4 weeks to about 13 weeks, about 4 weeks to about 14 weeks, about 4 weeks to about 15 weeks, about 5 weeks to about 6 weeks, about 5 weeks to about 7 weeks, about 5 weeks to about 8 weeks, about 5 weeks to about 9 weeks, about 5 weeks to about 10 weeks, about 5 weeks to about 11 weeks, about 5 weeks to about 12 weeks, about 5 weeks to about 13 weeks, about 5 weeks to about 14 weeks, about 5 weeks to about 15 weeks, about 6 weeks to about 7 weeks, about 6 weeks to about 8 weeks, about 6 weeks to about 9 weeks, about 6 weeks to about 10 weeks, about 6 weeks to about 11 weeks, about 6 weeks to about 12 weeks, about 6 weeks to about 13 weeks, about 6 weeks to about 14 weeks, about 6 weeks to about 15 weeks, about 7 weeks to about 8 weeks, about 7 weeks to about 9 weeks, about 7 weeks to about 10 weeks, about 7 weeks to about 11 weeks, about 7 weeks to about 12 weeks, about 7 weeks to about 13 weeks, about 7 weeks to about 14 weeks, about 7 weeks to about 15 weeks, about 8 weeks to about 9 weeks, about 8 weeks to about 10 weeks, about 8 weeks to about 11 weeks, about 8 weeks to about 12 weeks, about 8 weeks to about 13 weeks, about 8 weeks to about 14 weeks, about 8 weeks to about 15 weeks, about 9 weeks to about 10 weeks, about 9 weeks to about 11 weeks, about 9 weeks to about 12 weeks, about 9 weeks to about 13 weeks, about 9 weeks to about 14 weeks, about 9 weeks to about 15 weeks, about 10 weeks to about 11 weeks, about 10 weeks to about 12 weeks, about 10 weeks to about 13 weeks, about 10 weeks to about 14 weeks, about 10 weeks to about 15 weeks, about 11 weeks to about 12 weeks, about 11 weeks to about 13 weeks, about 11 weeks to about 14 weeks, about 11 weeks to about 15 weeks, about 12 weeks to about 13 weeks, about 12 weeks to about 14 weeks, about 12 weeks to about 15 weeks, about 13 weeks to about 14 weeks, about 13 weeks to about 15 weeks, or about 14 weeks to about 15 weeks.

94. The composition according to any one of claims 1-91, having a stability of about 1 month, about 2 months, 3 months, 4 months, 5 months, 6 months, 7 months, 8 months, 9 months, 10 months, 11 months, 12 months, 13 months, 14 months or 15 months or at least 1 month, at least 2 months, at least 3 months, at least 4 months, at least 5 months, at least 6 months, at least 7 months, at least 8 months, at least 9 months, at least 10 months, at least 11 months, at least 12 months, at least 13 months, at least 14 months or at least 15 months or at most 1 month, at most 2 months, at most 3 months, at most 4 months, at most 5 months, at most 6 months, at most 7 months, at most 8 months, at most 9 months, at most 10 months, at most 11 months, at most 12 months, at most 13 months, at most 14 months or

[illegible]

95. The composition according to any one of claims 1-91, having a stability of about 1 year, about 2 years, about 3 years, about 4 years, or about 5 years or at least 1 year, at least 2 years, at least 3 years, at least 4 years, or at least 5 years or at most 1 year, at most 2 years, at most 3 years, at most 4 years, or at most 5 years or about 1 year to about 2 years, about 1 year to about 3 years, about 1 year to about 4 years, about 1 year to about 5 years, about 2 years to about 3 years, about 2 years to about 4 years, about 2 years to about 5 years, about 3 years to about 4 years, about 3 years to about 5 years, or about 4 years to about 5 years.
96. The composition according to any one of claims 1-95, wherein the composition does not comprise, consist essentially of, or consist of ozone.
97. The composition according to any one of claims 1-96, wherein the composition does not comprise, consist essentially of, or consist of hydrogen peroxide.
98. The composition according to any one of claims 1-97, wherein the composition does not comprise, consist essentially of, or consist of hypochlorous acid or free available chlorine.
99. The composition according to any one of claims 1-98, wherein the composition does not comprise, consist essentially of, or consist of a surfactant.
100. The composition according to any one of claims 1-99, wherein the composition does not comprise, consist essentially of, or consist of a surfactant.
101. The composition according to any one of claims 1-100, wherein the composition does not comprise, consist essentially of, or consist of a guanide-containing compound.
102. The composition according to any one of claims 1-101, wherein the composition does not comprise, consist essentially of, or consist of an aldehyde-containing compounds.
103. The composition according to any one of claims 1-102, formulated as a single phase formulation or a biphasic formulation.
104. The composition according to any one of claims 1-103, formulated as a liquid composition, a colloidal composition, a semi-solid composition, or a solid composition.
105. The composition according to any one of claims 1-104, formulated as a liquid aerosol, a foam, an emulsion, a gel, a sol, or a solid sol.
106. The composition according to any one of claims 1-105, formulated as a spray, a liquid aerosol, a wash, a lotion, a cream, a soap, a dry powder, a vapor or a suspension.

107. A kit comprising, consisting essentially of, or consisting of a composition as defined in any one of claims 1-106.
108. The kit according to Claim 107, further comprising, consisting essentially of, or consisting of one or more delivery or application systems, and/or instructions, and/or a container.
109. A kit comprising, consisting essentially of, or consisting of a first component including hypochlorous acid or free available chlorine and a second component including one or more disinfectants.
110. A kit comprising, consisting essentially of, or consisting of a first component including one or more alcohols and a second component including one or more disinfectants.
111. A kit comprising, consisting essentially of, or consisting of a first component including isopropyl alcohol and a second component including polyhexamethylene biguanide.
112. The kit according to any one of Claims 109-111, further comprising, consisting essentially of, or consisting of a third component including one or more cationic surfactants, and/or a fourth component including a rinse solution and/or one or more delivery or application systems, and/or instructions, and/or a container.
113. The kit according to claim 109 or 112, wherein the hypochlorous acid or free available chlorine is in an amount of about 0.00005%, about 0.00006%, about 0.00007%, about 0.000075%, about 0.00008%, about 0.00009%, about 0.0001%, about 0.0005%, about 0.001%, about 0.0015%, about 0.002%, about 0.0025%, about 0.003%, about 0.0035%, about 0.004%, about 0.0045%, about 0.005%, about 0.0055%, about 0.006%, about 0.007%, about 0.0075%, about 0.008%, about 0.009%, about 0.01%, about 0.02%, about 0.03%, about 0.04%, about 0.05%, about 0.06%, about 0.07%, about 0.075%, about 0.08%, about 0.09%, about 0.10%, about 0.11%, about 0.12%, about 0.13%, about 0.14%, or about 0.15% by weight of the composition or at least 0.00005%, at least 0.00006%, at least 0.00007%, at least 0.000075%, at least 0.00008%, at least 0.00009%, at least 0.0001%, at least 0.0005%, at least 0.001%, at least 0.0015%, at least 0.002%, at least 0.0025%, at least 0.003%, at least 0.0035%, at least 0.004%, at least 0.0045%, at least 0.005%, at least 0.0055%, at least 0.006%, at least 0.007%, at least 0.0075%, at least 0.008%, at least 0.009%, at least 0.01%, at least 0.02%, at least 0.03%, at least 0.04%, at least 0.05%, at least 0.06%, at least 0.07%, at least 0.075%, at least 0.08%, at least 0.09%, at least 0.10%, at least 0.11%, at least 0.12%, at least 0.13%, at least 0.14%, or at least 0.15% by weight of the composition or at most 0.00005%, at most 0.00006%, at most 0.00007%, at most 0.000075%, at most 0.00008%, at most 0.00009%, at most 0.0001%, at most 0.0005%, at most 0.001%, at most 0.0015%, at most 0.002%, at most 0.0025%, at most 0.003%, at most 0.0035%, at most 0.004%, at most 0.0045%, at most 0.005%, at most 0.0055%, at most 0.006%, at most 0.007%, at most 0.0075%, at most 0.008%, at most 0.009%, at most 0.01%, at most 0.02%, at most 0.03%, at most 0.04%, at most 0.05%, at most 0.06%, at most 0.07%, at most 0.075%, at most 0.08%, at most 0.09%, at most 0.10%, at most 0.11%, at most

0.12%, at most 0.13%, at most 0.14%, or at most 0.15% by weight of the composition or about 0.00075% to about 0.002%, about 0.00075% to about 0.003%, about 0.00075% to about 0.004%, about 0.00075% to about 0.005%, about 0.00075% to about 0.006%, about 0.00075% to about 0.007%, about 0.00075% to about 0.008%, about 0.00075% to about 0.009%, about 0.00075% to about 0.01%, about 0.001% to about 0.002%, about 0.001% to about 0.003%, about 0.001% to about 0.004%, about 0.001% to about 0.005%, about 0.001% to about 0.006%, about 0.001% to about 0.007%, about 0.001% to about 0.008%, about 0.001% to about 0.009%, about 0.001% to about 0.01%, about 0.002% to about 0.003%, about 0.002% to about 0.004%, about 0.002% to about 0.005%, about 0.002% to about 0.006%, about 0.002% to about 0.007%, about 0.002% to about 0.008%, about 0.002% to about 0.009%, about 0.002% to about 0.01% by weight of the composition

114. The kit according to claim 109 or 112, wherein the hypochlorous acid or free available chlorine is in an amount of 0.05 ppm, 0.10 ppm, 0.15 ppm, 0.20 ppm, 0.25 ppm, 0.30 ppm, 0.35 ppm, 0.40 ppm, 0.45 ppm, 0.50 ppm, 0.55 ppm, 0.60 ppm, 0.65 ppm, 0.70 ppm, 0.75 ppm, 0.80 ppm, 0.85 ppm, 0.90 ppm, 0.95 ppm, 1 ppm, 5 ppm, 10 ppm, 15 ppm, 20 ppm, 25 ppm, 30 ppm, 35 ppm, 40 ppm, 45 ppm, 50 ppm, 55 ppm, 60 ppm, 65 ppm, 70 ppm, 75 ppm, 80 ppm, 85 ppm, 90 ppm, 95 ppm, 100 ppm, 125 ppm, 150 ppm, 175 ppm, 200 ppm, 225 ppm, 250 ppm, 275 ppm, 300 ppm, 325 ppm, 350 ppm, 375 ppm, 400 ppm, 425 ppm, 450 ppm, 475 ppm, 500 ppm, 525 ppm, 550 ppm, 575 ppm, 600 ppm, 625 ppm, 650 ppm, 675 ppm, 700 ppm, 725 ppm, 750 ppm, 775 ppm, 800 ppm, 825 ppm, 850 ppm, 875 ppm, 900 ppm, 925 ppm, 950 ppm, 975 ppm, 1,000 ppm, 1,025 ppm, 1,050 ppm, 1,075 ppm, 1,100 ppm, 1,125 ppm, 1,150 ppm, 1,175 ppm, 1,200 ppm, 1,225 ppm, 1,250 ppm, 1,275 ppm, 1,300 ppm, 1,325 ppm, 1,350 ppm, 1,375 ppm, 1,400 ppm, 1,425 ppm, 1,450 ppm, 1,475 ppm, or 1,500 ppm or at least 0.05 ppm, at least 0.10 ppm, at least 0.20 ppm, at least 0.30 ppm, at least 0.40 ppm, at least 0.50 ppm, at least 0.60 ppm, at least 0.70 ppm, at least 0.80 ppm, at least 0.90 ppm, at least 1 ppm, at least 10 ppm, at least 20 ppm, at least 30 ppm, at least 40 ppm, at least 50 ppm, at least 60 ppm, at least 70 ppm, at least 80 ppm, at least 90 ppm, at least 100 ppm, at least 125 ppm, at least 150 ppm, at least 175 ppm, at least 200 ppm, at least 225 ppm, at least 250 ppm, at least 275 ppm, at least 300 ppm, at least 325 ppm, at least 350 ppm, at least 375 ppm, at least 400 ppm, at least 425 ppm, at least 450 ppm, at least 475 ppm, at least 500 ppm, at least 525 ppm, at least 550 ppm, at least 575 ppm, at least 600 ppm, at least 625 ppm, at least 650 ppm, at least 675 ppm, at least 700 ppm, at least 725 ppm, at least 750 ppm, at least 775 ppm, at least 800 ppm, at least 825 ppm, at least 850 ppm, at least 875 ppm, at least 900 ppm, at least 925 ppm, at least 950 ppm, at least 975 ppm, at least 1,000 ppm, at least 1,025 ppm, at least 1,050 ppm, at least 1,075 ppm, at least 1,100 ppm, at least 1,125 ppm, at least 1,150 ppm, at least 1,175 ppm, at least 1,200 ppm, at least 1,225 ppm, at least 1,250 ppm, at least 1,275 ppm, at least 1,300 ppm, at least 1,325 ppm, at least 1,350 ppm, at least 1,375 ppm, at least 1,400 ppm, at least 1,425 ppm, at least 1,450 ppm, at least 1,475 ppm, or at least 1,500 ppm or at most 0.05 ppm, at most 0.10 ppm, at most 0.20 ppm, at most 0.30 ppm, at most 0.40 ppm, at most 0.50 ppm, at most 0.60 ppm, at most 0.70 ppm, at most 0.80 ppm, at most 0.90 ppm, at most 1 ppm, at most 10 ppm, at most 20 ppm, at most 30 ppm, at most 40 ppm, at most 50 ppm, at most 60 ppm, at most 70 ppm, at most 80 ppm, at most 90 ppm, at most 100 ppm, at most 125 ppm, at most 150 ppm, at most 175 ppm, at most 200 ppm, at most

225 ppm, at most 250 ppm, at most 275 ppm, at most 300 ppm, at most 325 ppm, at most 350 ppm, at most 375 ppm, at most 400 ppm, at most 425 ppm, at most 450 ppm, at most 475 ppm, at most 500 ppm, at most 525 ppm, at most 550 ppm, at most 575 ppm, at most 600 ppm, at most 625 ppm, at most 650 ppm, at most 675 ppm, at most 700 ppm, at most 725 ppm, at most 750 ppm, at most 775 ppm, at most 800 ppm, at most 825 ppm, at most 850 ppm, at most 875 ppm, at most 900 ppm, at most 925 ppm, at most 950 ppm, at most 975 ppm, at most 1,000 ppm, at most 1,025 ppm, at most 1,050 ppm, at most 1075 ppm, at most 1,100 ppm, at most 1,125 ppm, at most 1,150 ppm, at most 1,175 ppm, at most 1,200 ppm, at most 1,225 ppm, at most 1,250 ppm, at most 1,275 ppm, at most 1,300 ppm, at most 1,325 ppm, at most 1,350 ppm, at most 1,375 ppm, at most 1,400 ppm, at most 1,425 ppm, at most 1,450 ppm, at most 1,475 ppm, or at most 1,500 ppm or about 0.5 ppm to about 20 ppm, about 0.5 ppm to about 25 ppm, about 0.5 ppm to about 30 ppm, about 0.5 ppm to about 35 ppm, about 0.5 ppm to about 40 ppm, about 0.5 ppm to about 45 ppm, about 0.5 ppm to about 50 ppm, about 0.5 ppm to about 55 ppm, about 0.5 ppm to about 60 ppm, about 0.5 ppm to about 65 ppm, about 0.5 ppm to about 70 ppm, about 0.5 ppm to about 75 ppm, about 0.5 ppm to about 80 ppm, about 0.5 ppm to about 85 ppm, about 0.5 ppm to about 90 ppm, about 0.5 ppm to about 95 ppm, about 0.5 ppm to about 100 ppm, about 0.75 ppm to about 20 ppm, about 0.75 ppm to about 25 ppm, about 0.75 ppm to about 30 ppm, about 0.75 ppm to about 35 ppm, about 0.75 ppm to about 40 ppm, about 0.75 ppm to about 45 ppm, about 0.75 ppm to about 50 ppm, about 0.75 ppm to about 55 ppm, about 0.75 ppm to about 60 ppm, about 0.75 ppm to about 65 ppm, about 0.75 ppm to about 70 ppm, about 0.75 ppm to about 75 ppm, about 0.75 ppm to about 80 ppm, about 0.75 ppm to about 85 ppm, about 0.75 ppm to about 90 ppm, about 0.75 ppm to about 95 ppm, about 0.75 ppm to about 100 ppm, about 1 ppm to about 20 ppm, about 1 ppm to about 25 ppm, about 1 ppm to about 30 ppm, about 1 ppm to about 35 ppm, about 1 ppm to about 40 ppm, about 1 ppm to about 45 ppm, about 1 ppm to about 50 ppm, about 1 ppm to about 55 ppm, about 1 ppm to about 60 ppm, about 1 ppm to about 65 ppm, about 1 ppm to about 70 ppm, about 1 ppm to about 75 ppm, about 1 ppm to about 80 ppm, about 1 ppm to about 85 ppm, about 1 ppm to about 90 ppm, about 1 ppm to about 95 ppm, about 1 ppm to about 100 ppm, about 5 ppm to about 20 ppm, about 5 ppm to about 25 ppm, about 5 ppm to about 30 ppm, about 5 ppm to about 35 ppm, about 5 ppm to about 40 ppm, about 5 ppm to about 45 ppm, about 5 ppm to about 50 ppm, about 5 ppm to about 55 ppm, about 5 ppm to about 60 ppm, about 5 ppm to about 65 ppm, about 5 ppm to about 70 ppm, about 5 ppm to about 75 ppm, about 5 ppm to about 80 ppm, about 5 ppm to about 85 ppm, about 5 ppm to about 90 ppm, about 5 ppm to about 95 ppm, about 5 ppm to about 100 ppm, about 10 ppm to about 20 ppm, about 10 ppm to about 25 ppm, about 10 ppm to about 30 ppm, about 10 ppm to about 35 ppm, about 10 ppm to about 40 ppm, about 10 ppm to about 45 ppm, about 10 ppm to about 50 ppm, about 10 ppm to about 55 ppm, about 10 ppm to about 60 ppm, about 10 ppm to about 65 ppm, about 10 ppm to about 70 ppm, about 10 ppm to about 75 ppm, about 10 ppm to about 80 ppm, about 10 ppm to about 85 ppm, about 10 ppm to about 90 ppm, about 10 ppm to about 95 ppm, or about 10 ppm to about 100 ppm or about 1 ppm to about 25 ppm, about 1 ppm to about 50 ppm, about 1 ppm to about 75 ppm, about 1 ppm to about 100 ppm, about 1 ppm to about 125 ppm, about 1 ppm to about 150 ppm, about 1 ppm to about 175 ppm, about 1 ppm to about 200 ppm, about 1 ppm to about 225 ppm, about 1 ppm to about 250 ppm, about 1 ppm to about 275 ppm, about 1 ppm

[illegible]

ppm to about 900 ppm, about 500 ppm to about 1,000 ppm, about 500 ppm to about 1,100 ppm, about 500 ppm to about 1,200 ppm, about 500 ppm to about 1,300 ppm, about 500 ppm to about 1,400 ppm, about 500 ppm to about 1,500 ppm, about 600 ppm to about 700 ppm, about 600 ppm to about 800 ppm, about 600 ppm to about 900 ppm, about 600 ppm to about 1,000 ppm, about 600 ppm to about 1,100 ppm, about 600 ppm to about 1,200 ppm, about 600 ppm to about 1,300 ppm, about 600 ppm to about 1,400 ppm, about 600 ppm to about 1,500 ppm, about 700 ppm to about 800 ppm, about 700 ppm to about 900 ppm, about 700 ppm to about 1,000 ppm, about 700 ppm to about 1,100 ppm, about 700 ppm to about 1,200 ppm, about 700 ppm to about 1,300 ppm, about 700 ppm to about 1,400 ppm, about 700 ppm to about 1,500 ppm, about 800 ppm to about 900 ppm, about 800 ppm to about 1,000 ppm, about 800 ppm to about 1,100 ppm, about 800 ppm to about 1,200 ppm, about 800 ppm to about 1,300 ppm, about 800 ppm to about 1,400 ppm, about 800 ppm to about 1,500 ppm, about 900 ppm to about 1,000 ppm, about 900 ppm to about 1,100 ppm, about 900 ppm to about 1,200 ppm, about 900 ppm to about 1,300 ppm, about 900 ppm to about 1,400 ppm, about 900 ppm to about 1,500 ppm, about 1,000 ppm to about 1,100 ppm, about 1,000 ppm to about 1,200 ppm, about 1,000 ppm to about 1,300 ppm, about 1,000 ppm to about 1,400 ppm, about 1,000 ppm to about 1,500 ppm, about 1,100 ppm to about 1,200 ppm, about 1,100 ppm to about 1,300 ppm, about 1,100 ppm to about 1,400 ppm, about 1,100 ppm to about 1,500 ppm, about 1,200 ppm to about 1,300 ppm, about 1,200 ppm to about 1,400 ppm, about 1,200 ppm to about 1,500 ppm, about 1,300 ppm to about 1,400 ppm, about 1,300 ppm to about 1,500 ppm, or about 1,400 ppm to about 1,500 ppm.

115. The kit according to any one of claims 109, 110 or 112-114, wherein the one or more disinfectants are in an amount of about 0.01%, about 0.05%, about 0.075%, about 0.1%, about 0.2%, about 0.3%, about 0.4%, about 0.5%, about 0.6%, about 0.7%, about 0.8%, about 0.9%, about 1.0%, about 1.5%, about 2.0%, about 2.5%, about 3.0%, about 4.0%, about 5.0%, about 6.0%, about 7.0%, about 7.5%, about 8.0%, about 9.0% or about 10.0% by weight of the composition, or at least 0.01%, at least 0.05%, at least 0.075%, at least 0.1%, at least 0.25%, at least 0.5%, at least 0.75%, at least 1.0%, at least 1.5%, at least 2.0%, at least 2.5%, at least 3.0%, at least 4.0%, at least 5.0%, at least 6.0%, at least 7.0%, at least 7.5%, at least 8.0%, at least 9.0%, or at least 10.0% by weight of the composition, or at most 0.01%, at most 0.05%, at most 0.075%, at most 0.1%, at most 0.25%, at most 0.5%, at most 0.75%, at most 1.0%, at most 1.5%, at most 2.0%, at most 2.5%, at most 3.0%, at most 4.0%, at most 5.0%, at most 6.0%, at most 7.5%, at most 8.0%, at most 9.0% or at most 10.0% by weight of the composition, or about 0.1% to about 0.5%, about 0.1% to about 0.75%, about 0.1% to about 1.0%, about 0.1% to about 1.5%, about 0.1% to about 2.0%, about 0.1% to about 2.5%, about 0.2% to about 0.5%, about 0.2% to about 0.75%, about 0.2% to about 1.0%, about 0.2% to about 1.5%, about 0.2% to about 2.0%, about 0.2% to about 2.5%, about 0.5% to about 1.0%, about 0.5% to about 1.5%, about 0.5% to about 2.0%, about 0.5% to about 2.5%, about 0.5% to about 3.0%, about 0.5% to about 4.0%, about 0.5% to about 5.0%, about 1.0% to about 2.5%, about 1.0% to about 3.0%, about 1.0% to about 4.0%, about 1.0% to about 5.0%, about 1.0% to about 6.0%, about 1.0% to about 7.0%, about 1.0% to about 7.5%, about 1.0% to about 8.0%, about 1.0% to about 9.0%, about 1.0% to about 10.0%, about 2.0% to about 2.5%, about 2.0% to about 3.0%,

about 2.0% to about 4.0%, about 2.0% to about 5.0%, about 2.0% to about 6.0%, about 2.0% to about 7.0%, about 2.0% to about 7.5%, about 2.0% to about 8.0%, about 2.0% to about 9.0%, about 2.0% to about 10.0%, about 5.0% to about 6.0%, about 5.0% to about 7.0%, about 5.0% to about 7.5%, about 5.0% to about 8.0%, about 5.0% to about 9.0%, about 5.0% to about 10.0%, about 5.0% to about 11.0%, about 5.0% to about 12.0%, about 5.0% to about 13.0%, about 5.0% to about 14.0% or about 5.0% to about 15.0% by weight of the composition.

116. The kit according to any one of claims 109, 110 or 112-114, wherein the one or more disinfectants are in an amount of about 100 ppm, 125 ppm, 150 ppm, 175 ppm, 200 ppm, 225 ppm, 250 ppm, 275 ppm, 300 ppm, 325 ppm, 350 ppm, 375 ppm, 400 ppm, 425 ppm, 450 ppm, 475 ppm, 500 ppm, 525 ppm, 550 ppm, 575 ppm, 600 ppm, 625 ppm, 650 ppm, 675 ppm, 700 ppm, 725 ppm, 750 ppm, 775 ppm, 800 ppm, 825 ppm, 850 ppm, 875 ppm, 900 ppm, 925 ppm, 950 ppm, 975 ppm, or 1,000 ppm, or at least 100 ppm, at least 125 ppm, at least 150 ppm, at least 175 ppm, at least 200 ppm, at least 225 ppm, at least 250 ppm, at least 275 ppm, at least 300 ppm, at least 325 ppm, at least 350 ppm, at least 375 ppm, at least 400 ppm, at least 425 ppm, at least 450 ppm, at least 475 ppm, at least 500 ppm, at least 525 ppm, at least 550 ppm, at least 575 ppm, at least 600 ppm, at least 625 ppm, at least 650 ppm, at least 675 ppm, at least 700 ppm, at least 725 ppm, at least 750 ppm, at least 775 ppm, at least 800 ppm, at least 825 ppm, at least 850 ppm, at least 875 ppm, at least 900 ppm, at least 925 ppm, at least 950 ppm, at least 975 ppm, or at least 1,000 ppm, or at most 100 ppm, at most 125 ppm, at most 150 ppm, at most 175 ppm, at most 200 ppm, at most 225 ppm, at most 250 ppm, at most 275 ppm, at most 300 ppm, at most 325 ppm, at most 350 ppm, at most 375 ppm, at most 400 ppm, at most 425 ppm, at most 450 ppm, at most 475 ppm, at most 500 ppm, at most 525 ppm, at most 550 ppm, at most 575 ppm, at most 600 ppm, at most 625 ppm, at most 650 ppm, at most 675 ppm, at most 700 ppm, at most 725 ppm, at most 750 ppm, at most 775 ppm, at most 800 ppm, at most 825 ppm, at most 850 ppm, at most 875 ppm, at most 900 ppm, at most 925 ppm, at most 950 ppm, at most 975 ppm, or at most 1,000 ppm, or about 100 ppm to about 200 ppm, about 100 ppm to about 300 ppm, about 100 ppm to about 400 ppm, about 100 ppm to about 500 ppm, about 100 ppm to about 600 ppm, about 100 ppm to about 700 ppm, about 100 ppm to about 800 ppm, about 100 ppm to about 900 ppm, about 100 ppm to about 1,000 ppm, about 200 ppm to about 300 ppm, about 200 ppm to about 400 ppm, about 200 ppm to about 500 ppm, about 200 ppm to about 600 ppm, about 200 ppm to about 700 ppm, about 200 ppm to about 800 ppm, about 200 ppm to about 900 ppm, about 200 ppm to about 1,000 ppm, about 300 ppm to about 400 ppm, about 300 ppm to about 500 ppm, about 300 ppm to about 600 ppm, about 300 ppm to about 700 ppm, about 300 ppm to about 800 ppm, about 300 ppm to about 900 ppm, about 300 ppm to about 1,000 ppm, about 400 ppm to about 500 ppm, about 400 ppm to about 600 ppm, about 400 ppm to about 700 ppm, about 400 ppm to about 800 ppm, about 400 ppm to about 900 ppm, about 400 ppm to about 1,000 ppm, about 500 ppm to about 600 ppm, about 500 ppm to about 700 ppm, about 500 ppm to about 800 ppm, about 500 ppm to about 900 ppm, about 500 ppm to about 1,000 ppm, about 600 ppm to about 700 ppm, about 600 ppm to about 800 ppm, about 600 ppm to about 900 ppm, about 600 ppm to about 1,000 ppm, about 700 ppm to about 800 ppm, about 700 ppm to about 900 ppm,

about 700 ppm to about 1,000 ppm, about 800 ppm to about 900 ppm, about 800 ppm to about 1,000 ppm, or about 900 ppm to about 1,000 ppm.

117. The kit according to any one of claims 109, 110 or 112-116, wherein the one or more disinfectants include one or more compounds containing a guanide moiety or functional group, one or more aldehyde-containing compounds, one or more organic peroxides, or any combination thereof.
118. The kit according to claim 117, wherein the one or more guanide-containing compounds comprise, consist essentially of, or consist of a biguanide, a biguanide-containing compound, a biguanidine, a biguanidine-containing compound, a triguanide, a triguanide-containing compound, or any combination thereof.
119. The kit according to claim 118, wherein the one or more biguanide-containing compounds include a polyhexamethylene biguanide (PHMB), a polyaminopropyl biguanide (PAPB), a 1,1'-(1,6-Hexanediyl)bis{2-[N'-(2-ethylhexyl)carbamidoyl]guanidine} (alexidine), a chlorhexidine, a chlorhexidine gluconate, or any combination thereof.
120. The kit according to claim 117, wherein the one or more aldehyde-containing compounds include one or more aldehydes, one or more dialdehydes, or any combination thereof.
121. The kit according to claim 120, wherein the one or more aldehydes includes one or more linear aldehydes, one or more branched aldehydes, one or more cyclic aldehydes, one or more aromatic aldehydes, or any combination thereof.
122. The kit according to claim 120 or 121, wherein the one or more aldehydes includes formaldehyde, acetaldehyde, propionaldehyde, butyraldehyde, or any combination thereof.
123. The kit according to claim 120, wherein the one or more dialdehydes includes one or more linear dialdehydes, one or more branched dialdehydes, one or more cyclic dialdehydes, one or more aromatic dialdehydes, or any combination thereof.
124. The kit according to claim 120 or 121, wherein the one or more dialdehydes includes oxaldehyde, malondialdehyde, glutaraldehyde, succinicdialdehyde, phthalaldehyde (*ortho*-phthalaldehyde), isophthalaldehyde (*meta*-phthalaldehyde), terephthalaldehyde (*para*-phthalaldehyde), or any combination thereof.
125. The kit according to claim 117, wherein the one or more organic peroxides include benzoyl peroxide, ethaneperoxoic acid (peracetic acid), or any combination thereof.
126. The kit according to any one of claims 117-125, wherein the one or more guanide-containing compounds, one or more aldehyde-containing compounds, and/or one or more organic peroxides are

in an amount of about 0.01%, about 0.05%, about 0.075%, about 0.1%, about 0.2%, about 0.3%, about 0.4%, about 0.5%, about 0.6%, about 0.7%, about 0.8%, about 0.9%, about 1.0%, about 1.5%, about 2.0%, about 2.5%, about 3.0%, about 4.0%, about 5.0%, about 6.0%, about 6.5%, about 7.0%, about 7.5%, about 8.0%, about 8.5%, about 9.0%, about 9.5%, about 10.0%, about 11%, about 12%, about 13%, about 14%, about 15%, about 20%, about 25%, or about 30% by weight of the composition, or at least 0.01%, at least 0.05%, at least 0.075%, at least 0.1%, at least 0.25%, at least 0.5%, at least 0.75%, at least 1.0%, at least 1.5%, at least 2.0%, at least 2.5%, at least 3.0%, at least 4.0%, at least 5.0%, at least 6.0%, at least 7.0%, at least 7.5%, at least 8.0%, at least 9.0%, at least 10.0%, at least 11%, at least 12%, at least 13%, at least 14%, at least 15%, at least 20%, at least 25%, or at least 30% by weight of the composition, or at most 0.01%, at most 0.05%, at most 0.075%, at most 0.1%, at most 0.25%, at most 0.5%, at most 0.75%, at most 1.0%, at most 1.5%, at most 2.0%, at most 2.5%, at most 3.0%, at most 4.0%, at most 5.0%, at most 6.0%, at most 7.5%, at most 8.0%, at most 9.0%, at most 10.0%, at most 11%, at most 12%, at most 13%, at most 14%, at most 15%, at most 20%, at most 25%, or at most 30% by weight of the composition, or about 0.1% to about 0.5%, about 0.1% to about 0.75%, about 0.1% to about 1.0%, about 0.1% to about 1.5%, about 0.1% to about 2.0%, about 0.1% to about 2.5%, about 0.1% to about 3.0%, about 0.1% to about 3.5%, about 0.1% to about 4.0%, about 0.1% to about 4.5%, about 0.1% to about 5.0%, about 0.2% to about 0.5%, about 0.2% to about 0.75%, about 0.2% to about 1.0%, about 0.2% to about 1.5%, about 0.2% to about 2.0%, about 0.2% to about 2.5%, about 0.2% to about 3.0%, about 0.2% to about 3.5%, about 0.2% to about 4.0%, about 0.2% to about 4.5%, about 0.2% to about 5.0%, about 0.5% to about 1.0%, about 0.5% to about 1.5%, about 0.5% to about 2.0%, about 0.5% to about 2.5%, about 0.5% to about 3.0%, about 0.5% to about 4.0%, about 0.5% to about 5.0%, about 0.5% to about 6.0%, about 0.5% to about 7.0%, about 0.5% to about 8.0%, about 0.5% to about 9.0%, about 0.5% to about 10.0%, about 1.0% to about 2.5%, about 1.0% to about 3.0%, about 1.0% to about 4.0%, about 1.0% to about 5.0%, about 1.0% to about 6.0%, about 1.0% to about 7.0%, about 1.0% to about 7.5%, about 1.0% to about 8.0%, about 1.0% to about 9.0%, about 1.0% to about 10.0%, about 1.0% to about 15.0%, about 1.0% to about 20.0%, about 1.0% to about 25.0%, about 1.0% to about 30.0%, about 2.0% to about 2.5%, about 2.0% to about 3.0%, about 2.0% to about 4.0%, about 2.0% to about 5.0%, about 2.0% to about 6.0%, about 2.0% to about 7.0%, about 2.0% to about 7.5%, about 2.0% to about 8.0%, about 2.0% to about 9.0%, about 2.0% to about 10.0%, about 2.0% to about 15.0%, about 2.0% to about 20.0%, about 2.0% to about 25.0%, about 2.0% to about 30.0%, about 5.0% to about 6.0%, about 5.0% to about 7.0%, about 5.0% to about 7.5%, about 5.0% to about 8.0%, about 5.0% to about 9.0%, about 5.0% to about 10.0%, about 5.0% to about 11.0%, about 5.0% to about 12.0%, about 5.0% to about 13.0%, about 5.0% to about 14.0%, about 5.0% to about 15.0%, about 5.0% to about 20.0%, about 5.0% to about 25.0%, about 5.0% to about 30.0%, about 6.0% to about 7.0%, about 6.0% to about 7.5%, about 6.0% to about 8.0%, about 6.0% to about 9.0%, about 6.0% to about 10.0%, about 6.0% to about 11.0%, about 6.0% to about 12.0%, about 6.0% to about 13.0%, about 6.0% to about 14.0%, about 6.0% to about 15.0%, about 6.0% to about 20.0%, about 6.0% to about 25.0%, about 6.0% to about 30.0%, about 7.0% to about 8.0%, about 7.0% to about 9.0%, about 7.0% to about 10.0%, about 7.0% to about 11.0%, about 7.0% to about 12.0%, about 7.0% to about 13.0%, about 7.0% to about 14.0%, about 7.0% to about 15.0%, about 7.0% to about 20.0%, about 7.0% to about 25.0%, about 7.0% to about

30.0%, about 8.0% to about 9.0%, about 8.0% to about 10.0%, about 8.0% to about 11.0%, about 8.0% to about 12.0%, about 8.0% to about 13.0%, about 8.0% to about 14.0%, about 8.0% to about 15.0%, about 8.0% to about 20.0%, about 8.0% to about 25.0%, about 8.0% to about 30.0%, about 9.0% to about 10.0%, about 9.0% to about 11.0%, about 9.0% to about 12.0%, about 9.0% to about 13.0%, about 9.0% to about 14.0%, about 9.0% to about 15.0%, about 9.0% to about 20.0%, about 9.0% to about 25.0%, about 9.0% to about 30.0%, about 10.0% to about 11.0%, about 10.0% to about 12.0%, about 10.0% to about 13.0%, about 10.0% to about 14.0%, about 10.0% to about 15.0%, about 10.0% to about 20.0%, about 10.0% to about 25.0%, about 10.0% to about 30.0%, about 15.0% to about 20.0%, about 15.0% to about 25.0%, about 15.0% to about 30.0%, about 20.0% to about 25.0%, about 20.0% to about 30.0%, or about 20.0% to about 30.0%, by weight of the composition.

127. The kit according to any one of claims 117-125, wherein the one or more aldehydes and/or one or more dialdehydes are in an amount of about 100 ppm, 125 ppm, 150 ppm, 175 ppm, 200 ppm, 225 ppm, 250 ppm, 275 ppm, 300 ppm, 325 ppm, 350 ppm, 375 ppm, 400 ppm, 425 ppm, 450 ppm, 475 ppm, 500 ppm, 525 ppm, 550 ppm, 575 ppm, 600 ppm, 625 ppm, 650 ppm, 675 ppm, 700 ppm, 725 ppm, 750 ppm, 775 ppm, 800 ppm, 825 ppm, 850 ppm, 875 ppm, 900 ppm, 925 ppm, 950 ppm, 975 ppm, or 1,000 ppm, or at least 100 ppm, at least 125 ppm, at least 150 ppm, at least 175 ppm, at least 200 ppm, at least 225 ppm, at least 250 ppm, at least 275 ppm, at least 300 ppm, at least 325 ppm, at least 350 ppm, at least 375 ppm, at least 400 ppm, at least 425 ppm, at least 450 ppm, at least 475 ppm, at least 500 ppm, at least 525 ppm, at least 550 ppm, at least 575 ppm, at least 600 ppm, at least 625 ppm, at least 650 ppm, at least 675 ppm, at least 700 ppm, at least 725 ppm, at least 750 ppm, at least 775 ppm, at least 800 ppm, at least 825 ppm, at least 850 ppm, at least 875 ppm, at least 900 ppm, at least 925 ppm, at least 950 ppm, at least 975 ppm, or at least 1,000 ppm, or at most 100 ppm, at most 125 ppm, at most 150 ppm, at most 175 ppm, at most 200 ppm, at most 225 ppm, at most 250 ppm, at most 275 ppm, at most 300 ppm, at most 325 ppm, at most 350 ppm, at most 375 ppm, at most 400 ppm, at most 425 ppm, at most 450 ppm, at most 475 ppm, at most 500 ppm, at most 525 ppm, at most 550 ppm, at most 575 ppm, at most 600 ppm, at most 625 ppm, at most 650 ppm, at most 675 ppm, at most 700 ppm, at most 725 ppm, at most 750 ppm, at most 775 ppm, at most 800 ppm, at most 825 ppm, at most 850 ppm, at most 875 ppm, at most 900 ppm, at most 925 ppm, at most 950 ppm, at most 975 ppm, or at most 1,000 ppm.

128. The kit according to any one of claims 117-125, wherein the one or more aldehydes and/or one or more dialdehydes are in an amount of about 100 ppm to about 200 ppm, about 100 ppm to about 300 ppm, about 100 ppm to about 400 ppm, about 100 ppm to about 500 ppm, about 100 ppm to about 600 ppm, about 100 ppm to about 700 ppm, about 100 ppm to about 800 ppm, about 100 ppm to about 900 ppm, about 100 ppm to about 1,000 ppm, about 200 ppm to about 300 ppm, about 200 ppm to about 400 ppm, about 200 ppm to about 500 ppm, about 200 ppm to about 600 ppm, about 200 ppm to about 700 ppm, about 200 ppm to about 800 ppm, about 200 ppm to about 900 ppm, about 200 ppm to about 1,000 ppm, about 300 ppm to about 400 ppm, about 300 ppm to about 500 ppm, about 300 ppm to about 600 ppm, about 300 ppm to about 700 ppm, about 300 ppm to about 800 ppm, about 300 ppm to about 900 ppm, about 300 ppm to about 1,000 ppm, about 400 ppm to about 500 ppm,

about 400 ppm to about 600 ppm, about 400 ppm to about 700 ppm, about 400 ppm to about 800 ppm, about 400 ppm to about 900 ppm, about 400 ppm to about 1,000 ppm, about 500 ppm to about 600 ppm, about 500 ppm to about 700 ppm, about 500 ppm to about 800 ppm, about 500 ppm to about 900 ppm, about 500 ppm to about 1,000 ppm, about 600 ppm to about 700 ppm, about 600 ppm to about 800 ppm, about 600 ppm to about 900 ppm, about 600 ppm to about 1,000 ppm, about 700 ppm to about 800 ppm, about 700 ppm to about 900 ppm, about 700 ppm to about 1,000 ppm, about 800 ppm to about 900 ppm, about 800 ppm to about 1,000 ppm, or about 900 ppm to about 1,000 ppm.

129. The kit according to any one of claims 109, 110 or 112-128, wherein the one or more alcohols is methanol, ethanol, propanol, isopropanol, butanol, pentanol, and 1-hexadecanol.

130. The kit according to any one of claims 109, 110 or 112-129, wherein the one or more alcohols are in an amount of about 40%, about 45%, about 50%, about 55%, about 60%, about 65%, about 70%, about 75%, about 80%, about 85%, about 90%, about 95%, about 96%, about 97%, about 98%, or about 99%, by weight of the composition, or at least 40%, at least 45%, at least 50%, at least 55%, at least 60%, at least 65%, at least 70%, at least 75%, at least 80%, at least 85%, at least 90%, at least 95%, at least 96%, at least 97%, at least 98%, or at least 99%, by weight of the composition, or at most 40%, at most 45%, at most 50%, at most 55%, at most 60%, at most 65%, at most 70%, at most 75%, at most 80%, at most 85%, at most 90%, at most 95%, at most 96%, at most 97%, at most 98%, or at most 99%, by weight of the composition, about 40% to about 50%, about 40% to about 60%, about 40% to about 70%, about 40% to about 80%, about 40% to about 90%, about 40% to about 95%, about 40% to about 97%, about 40% to about 99%, about 50% to about 60%, about 50% to about 70%, about 50% to about 80%, about 50% to about 90%, about 50% to about 95%, about 50% to about 97%, about 50% to about 99%, about 60% to about 70%, about 60% to about 80%, about 60% to about 90%, about 60% to about 95%, about 60% to about 97%, about 60% to about 99%, about 70% to about 80%, about 70% to about 90%, about 70% to about 95%, about 70% to about 97%, about 70% to about 99%, about 80% to about 90%, about 80% to about 95%, about 80% to about 97%, about 80% to about 99%, about 90% to about 95%, about 90% to about 97%, about 90% to about 99%, by weight of the composition.

131. The kit according to any one of claims 112-130, wherein the one or more cationic surfactants include one or more quaternary ammonium surfactants, pH-dependent primary amine surfactant, pH-dependent secondary amine surfactant, pH-dependent tertiary amine surfactant, or any combination thereof.

132. The kit according to claim 131, wherein the one or more quaternary ammonium surfactants include benzalkonium chloride (BAC), benzethonium chloride (BZT), benzododecinium bromide (or dimethyldodecylbenzylammonium bromide), bronidox, (or 5-bromo-5-nitro-1,3-dioxane), carbethopendecinium bromide, cetalkonium chloride (CKC), cetrimonium, cetrimide, cetylpyridinium chloride (CPC), cetyl trimethylammonium bromide (CTAB or cetrimonium bromide) and cetyl trimethylammonium chloride (CTAC or cetrimonium chloride), didecyldimethylammonium chloride

(DDAC), dioctadecyldimethylammonium bromide (DODAB or dimethyldioctadecylammonium bromide), dioctadecyldimethylammonium chloride (DODAC or dimethyldioctadecylammonium chloride), docosyltrimethylammonium chloride (DCTAC or behentrimonium chloride), dofanium chloride, domiphen bromide, methylbenzethonium chloride, octenidine dihydrochloride, polidronium chloride, stearalkonium chloride (or dimethylbenzyloctadecylammonium), tetraethylammonium bromide, tetramethylammonium hydroxide (TMAH) and thonzonium bromide, or any combination thereof.

133. The kit according to any one of claims 112-132, wherein the one or more cationic surfactants are in an amount of aspects of, *e.g.*, about 0.001%, about 0.005%, about 0.0075%, about 0.01%, about 0.05%, about 0.075%, about 0.1%, about 0.2%, about 0.3%, about 0.4%, about 0.5%, about 0.6%, about 0.7%, about 0.8%, about 0.9%, about 1.0%, about 1.5%, about 2.0%, about 2.5%, about 3.0%, about 4.0%, about 5.0%, about 6.0%, about 7.0%, about 7.5%, about 8.0%, about 9.0% or about 10.0% by weight of the composition, or at least 0.001%, at least 0.005%, at least 0.0075%, at least 0.01%, at least 0.05%, at least 0.075%, at least 0.1%, at least 0.25%, at least 0.5%, at least 0.75%, at least 1.0%, at least 1.5%, at least 2.0%, at least 2.5%, at least 3.0%, at least 4.0%, at least 5.0%, at least 6.0%, at least 7.0%, at least 7.5%, at least 8.0%, at least 9.0%, or at least 10.0% by weight of the composition, or at most 0.001%, at most 0.005%, at most 0.0075%, at most 0.01%, at most 0.05%, at most 0.075%, at most 0.1%, at most 0.25%, at most 0.5%, at most 0.75%, at most 1.0%, at most 1.5%, at most 2.0%, at most 2.5%, at most 3.0%, at most 4.0%, at most 5.0%, at most 6.0%, at most 7.5%, at most 8.0%, at most 9.0% or at most 10.0% by weight of the composition, or about 0.001% to about 0.005%, about 0.001% to about 0.0075%, about 0.001% to about 0.01%, about 0.001% to about 0.025%, about 0.001% to about 0.05%, about 0.001% to about 0.075%, about 0.001% to about 0.1%, about 0.001% to about 0.25%, about 0.001% to about 0.75%, about 0.001% to about 1.0%, about 0.005% to about 0.0075%, about 0.005% to about 0.01%, about 0.005% to about 0.025%, about 0.005% to about 0.05%, about 0.005% to about 0.075%, about 0.005% to about 0.1%, about 0.005% to about 0.25%, about 0.005% to about 0.75%, about 0.005% to about 1.0%, about 0.01% to about 0.05%, about 0.01% to about 0.075%, about 0.01% to about 0.1%, about 0.01% to about 0.25%, about 0.01% to about 0.5%, about 0.01% to about 0.75%, about 0.01% to about 1.0%, about 0.01% to about 1.5%, about 0.01% to about 2.0%, about 0.01% to about 2.5%, about 0.05% to about 0.075%, about 0.05% to about 0.1%, about 0.05% to about 0.25%, about 0.05% to about 0.5%, about 0.05% to about 0.75%, about 0.05% to about 1.0%, about 0.05% to about 1.5%, about 0.05% to about 2.0%, about 0.05% to about 2.5%, about 0.1% to about 0.5%, about 0.1% to about 0.75%, about 0.1% to about 1.0%, about 0.1% to about 1.5%, about 0.1% to about 2.0%, about 0.1% to about 2.5%, about 0.1% to about 3.0%, about 0.1% to about 4.0%, about 0.1% to about 5.0%, about 0.2% to about 0.5%, about 0.2% to about 0.75%, about 0.2% to about 1.0%, about 0.2% to about 1.5%, about 0.2% to about 2.0%, about 0.2% to about 2.5%, about 0.2% to about 3.0%, about 0.2% to about 4.0%, about 0.2% to about 5.0%, about 0.5% to about 1.0%, about 0.5% to about 1.5%, about 0.5% to about 2.0%, about 0.5% to about 2.5%, about 0.5% to about 3.0%, about 0.5% to about 4.0%, about 0.5% to about 5.0%, about 0.5% to about 6.0%, about 0.5% to about 7.0%, about 0.5% to about 8.0%, about 0.5% to about 9.0%, about 0.5% to about 10.0%, about 1.0% to about 2.5%, about 1.0% to about 3.0%, about 1.0%

to about 4.0%, about 1.0% to about 5.0%, about 1.0% to about 6.0%, about 1.0% to about 7.0%, about 1.0% to about 7.5%, about 1.0% to about 8.0%, about 1.0% to about 9.0%, about 1.0% to about 10.0%, about 2.0% to about 2.5%, about 2.0% to about 3.0%, about 2.0% to about 4.0%, about 2.0% to about 5.0%, about 2.0% to about 6.0%, about 2.0% to about 7.0%, about 2.0% to about 7.5%, about 2.0% to about 8.0%, about 2.0% to about 9.0%, about 2.0% to about 10.0%, about 5.0% to about 6.0%, about 5.0% to about 7.0%, about 5.0% to about 7.5%, about 5.0% to about 8.0%, about 5.0% to about 9.0%, about 5.0% to about 10.0%, about 5.0% to about 11.0%, about 5.0% to about 12.0%, about 5.0% to about 13.0%, about 5.0% to about 14.0% or about 5.0% to about 15.0% by weight of the composition.

134. A method to clean, disinfect and/or sterilize a device, the method comprising, consisting essentially of, or consisting of applying a composition as defined in any one of claims 1-108 or applying the components as defined in any one of claims 109-133, to a device, wherein application of the composition cleans, disinfects and/or sterilizes the device.
135. A composition as defined in any one of claims 1-108 or the components as defined in any one of claims 109-133 for use in cleaning, disinfecting and/or sterilizing a device.
136. Use of a composition as defined in any one of claims 1-108 or use of the components as defined in any one of claims 109-133 to clean, disinfect and/or sterilize a device.
137. A method to clean, disinfect and/or sterilize a surface area, the method comprising, consisting essentially of, or consisting of applying a composition as defined in any one of claims 1-108 or applying the components as defined in any one of claims 109-133, to a device, wherein application of the composition cleans, disinfects and/or sterilizes the device.
138. A composition as defined in any one of claims 1-108 or the components as defined in any one of claims 109-133 for use in cleaning, disinfecting and/or sterilizing a surface area.
139. Use of a composition as defined in any one of claims 1-108 or use of the components as defined in any one of claims 109-133 to clean, disinfect and/or sterilize a surface area.
140. The method of claim 137, or the use of claim 138 or 139, wherein the surface area is a porous surface area or a non-porous surface area.
141. The method of claim 137 or 140, or the use of any one of claims 138-140, wherein the surface area comprises a table top, counter top, floor, wall, ceiling, window, door, door handle, shower, bath, sink, faucet, toilet, toilet seat, drain, equipment, machinery, personal protective gear, personal biohazard gear, a medical device, dental device, pharmaceutical device, veterinary device, mortuary device or human skin.

142. The method of claim 141, or the use of claim 141, wherein the medical device is a surgical instrument, a respiratory therapy instrument, an anesthesia instrument, a catheter, an implant, a probe, an endoscope, an arthroscope, a laparoscope, a blade, a cystoscope, a spirometer, a CPAP mask and tubing, dialysis instrument and accessories, a heart-lung machine and accessories, a heart-lung bypass machine and accessories, and a diaphragm fitting ring.
143. A method to clean, disinfect and/or sterilize a microbial infection in an individual, the method comprising, consisting essentially of, or consisting of applying a composition as defined in any one of claims 1-108 or applying the components as defined in any one of claims 109-133 to the individual, wherein application of the composition cleans, disinfects and/or sterilizes the device.
144. A composition as defined in any one of claims 1-108 or the components as defined in any one of claims 109-133 for use in cleaning, disinfecting and/or sterilizing a microbial infection in an individual.
145. Use of a composition as defined in any one of claims 1-108 or use of the components as defined in any one of claims 109-133 to clean, disinfect and/or sterilize a microbial infection in an individual.
146. The method of claim 143, or the use of claim 144 or 145, wherein application of the composition is applied topically or administered enterally or parenterally.
147. The method of any one of claims 137, 140, 141, 143 or 146, or the use of any one of claims 138-141 or 144-146, wherein the composition is applied daily, every other day, every third of day, once a week, multiple times per week, once a month, multiple times per month, once a year or multiple times per year, as desired.
148. The method of any one of claims 137, 140, 141, 143, 146 or 147, or the use of any one of claims 138-141 or 144-147, wherein the composition is applied multiple times per day.
149. The method of any one of claims 134, 137, or 143, or the use of any one of claims 135, 136, 138, 139, 144 or 145, wherein the composition is applied to a device, like a medical device, a surface, or an individual for, *e.g.*, about 1 minute, about 5 minutes, about 10 minutes, about 15 minutes, about 20 minutes, about 25 minutes, about 30 minutes, about 35 minutes, about 40 minutes, about 45 minutes, about 50 minutes, about 55 minutes, about 60 minutes, about 70 minutes, about 80 minutes, about 90 minutes, about 100 minutes, about 110 minutes, or about 120 minutes; or is applied to a device, like a medical device, a surface, or an individual for, *e.g.*, at least 1 minute, at least 5 minutes, at least 10 minutes, at least 15 minutes, at least 20 minutes, at least 25 minutes, at least 30 minutes, at least 35 minutes, at least 40 minutes, at least 45 minutes, at least 50 minutes, at least 55 minutes, at least 60 minutes, at least 70 minutes, at least 80 minutes, at least 90 minutes, at least 100 minutes, at least 110 minutes, or at least 120 minutes. In yet other aspects of this embodiment, a composition disclosed herein is applied to device, like a medical device, a surface, or an individual for, *e.g.*, at most 1 minute, at most 5 minutes, at most 10 minutes, at most 15 minutes, at most 20 minutes, at most 25 minutes,

at most 30 minutes, at most 35 minutes, at most 40 minutes, at most 45 minutes, at most 50 minutes, at most 55 minutes, at most 60 minutes, at most 70 minutes, at most 80 minutes, at most 90 minutes, at most 100 minutes, at most 110 minutes, or at most 120 minutes; or is applied to a device, like a medical device, a surface, or an individual for, *e.g.*, about 1 minute to about 5 minutes, about 1 minute to about 10 minutes, about 1 minute to about 15 minutes, about 1 minute to about 20 minutes, about 1 minute to about 25 minutes, about 1 minute to about 30 minutes, about 1 minute to about 35 minutes, about 1 minute to about 40 minutes, about 1 minute to about 45 minutes, about 1 minute to about 50 minutes, about 1 minute to about 55 minutes, about 1 minute to about 60 minutes, about 5 minutes to about 10 minutes, about 5 minutes to about 15 minutes, about 5 minutes to about 20 minutes, about 5 minutes to about 25 minutes, about 5 minutes to about 30 minutes, about 5 minutes to about 35 minutes, about 5 minutes to about 40 minutes, about 5 minutes to about 45 minutes, about 5 minutes to about 50 minutes, about 5 minutes to about 55 minutes, about 5 minutes to about 60 minutes, about 5 minutes to about 70 minutes, about 5 minutes to about 80 minutes, about 5 minutes to about 90 minutes, about 5 minutes to about 100 minutes, about 5 minutes to about 110 minutes, about 5 minutes to about 120 minutes, about 10 minutes to about 15 minutes, about 10 minutes to about 20 minutes, about 10 minutes to about 25 minutes, about 10 minutes to about 30 minutes, about 10 minutes to about 35 minutes, about 10 minutes to about 40 minutes, about 10 minutes to about 45 minutes, about 10 minutes to about 50 minutes, about 10 minutes to about 55 minutes, about 10 minutes to about 60 minutes, about 10 minutes to about 70 minutes, about 10 minutes to about 80 minutes, about 10 minutes to about 90 minutes, about 10 minutes to about 100 minutes, about 10 minutes to about 110 minutes, about 10 minutes to about 120 minutes, about 15 minutes to about 20 minutes, about 15 minutes to about 25 minutes, about 15 minutes to about 30 minutes, about 15 minutes to about 35 minutes, about 15 minutes to about 40 minutes, about 15 minutes to about 45 minutes, about 15 minutes to about 50 minutes, about 15 minutes to about 55 minutes, about 15 minutes to about 60 minutes, about 15 minutes to about 70 minutes, about 15 minutes to about 80 minutes, about 15 minutes to about 90 minutes, about 15 minutes to about 100 minutes, about 15 minutes to about 110 minutes, about 15 minutes to about 120 minutes, about 20 minutes to about 25 minutes, about 20 minutes to about 30 minutes, about 20 minutes to about 35 minutes, about 20 minutes to about 40 minutes, about 20 minutes to about 45 minutes, about 20 minutes to about 50 minutes, about 20 minutes to about 55 minutes, about 20 minutes to about 60 minutes, about 20 minutes to about 70 minutes, about 20 minutes to about 80 minutes, about 20 minutes to about 90 minutes, about 20 minutes to about 100 minutes, about 20 minutes to about 110 minutes, about 20 minutes to about 120 minutes, about 25 minutes to about 30 minutes, about 25 minutes to about 35 minutes, about 25 minutes to about 40 minutes, about 25 minutes to about 45 minutes, about 25 minutes to about 50 minutes, about 25 minutes to about 55 minutes, about 25 minutes to about 60 minutes, about 25 minutes to about 70 minutes, about 25 minutes to about 80 minutes, about 25 minutes to about 90 minutes, about 25 minutes to about 100 minutes, about 25 minutes to about 110 minutes, about 25 minutes to about 120 minutes, about 30 minutes to about 35 minutes, about 30 minutes to about 40 minutes, about 30 minutes to about 45 minutes, about 30 minutes to about 50 minutes, about 30 minutes to about 55 minutes, about 30 minutes to about 60 minutes, about 30 minutes to about 70 minutes, about 30 minutes to about 80 minutes, about 30 minutes to about 90 minutes, about 30

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