(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
12 September 2019 (12.09.2019)

WIPO | PCT

(10) International Publication Number
WO 2019/172985 A1

(51) International Patent Classification:
A45D 31/00 (2006.01) *A61K 8/55* (2006.01)
A61K 8/35 (2006.01)

(21) International Application Number:
PCT/US2019/000007

(22) International Filing Date:
06 March 2019 (06.03.2019)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
15/916,216 08 March 2018 (08.03.2018) US

(72) Inventor; and
(71) Applicant: **MA, Carol** [US/US]; 2047 Angelcrest Dr., Hacienda Heights, CA 91745 (US).

(74) Agent: **CHAN, Raymond, Y.**; 108 N. Ynez Avenue, Suite 128, Monterey Park, CA 91754 (US).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:
— *of inventorship (Rule 4.17(iv))*

Published:
— *with international search report (Art. 21(3))*

WO 2019/172985 A1

(54) Title: ARTIFICIAL NAIL TIP AND CURING COMPOSITION SET AND APPLYING METHOD THEREOF

(57) Abstract: A nail tip curing composition includes an Extend Gel, an edge-off flat brush, a nail filing device, a plurality of GEL-X tips, a pH Bonder, and a Non-Acidic Gel Primer. The pH Bonder forms a pH Bonder layer on a surface of a fingernail. The Non-Acidic Gel Primer forms a Non-Acidic Gel Prime layer overlapped on the pH Bonder layer. The Extend Gel forms an Extend Gel layer overlapped on the Non-Acidic Gel Prime layer. The GEL-X tip is filed by the nail filing device and the Extend Gel is applied on an underside contact surface of the Gel-X tip by the edge-off flat brush. The underside contact surface of the Gel-X tip is contacted with the Extend Gel layer on the fingernail in such a manner that the Gel-X tip is firmly affixed on the fingernail.

TITLE

Artificial Nail Tip and Curing Composition Set and Applying Method Thereof

BACKGROUND OF THE PRESENT INVENTION

FIELD OF INVENTION

[0001] The present invention relates to a nail tip composition, and more particularly to a set of artificial nail tip and curing composition set and applying method thereof, which not only can reduce the curing and hardening time of the artificial nail tip on the fingernail but also can prevent unnecessary damages to fingernails.

DESCRIPTION OF RELATED ARTS

[0002] Gel nail art is a decorate beautification work of nails, which is considered as an art design nowadays. The gel nail art has the characteristics of the diversification of various forms. According to the hand shape, the finger nail shape, the color of the skin, clothing and other requirements, the gel nail art is a process of nail disinfection, cleaning, care, maintenance, and decorate beautification. Currently, during the gel nail process, phototherapy is used for accelerated weathering. Some people used to do a hand care at first before using the phototherapy manicures. However, exfoliator results in thinning of the skin, which further cause skin aging if the fingernail is directly exposed under the phototherapy lamp such as UV or blue light without sunscreen. The improper gel nail art may cause nail damage, which even causes separation of the nail and the nail bed under the nails and eventually leads to shorter nail bed. Therefore, healthy nail composition as well as the right nail tools are required.

SUMMARY OF THE PRESENT INVENTION

[0003] The invention is advantageous in that it provides an artificial nail tip and curing composition set and applying method thereof, which not only decorates fingernails but also protects the fingernails.

[0004] Another advantage of the invention is to provide an artificial nail tip and curing composition set and applying method thereof, which not only can reduce the curing and hardening time of the artificial nail tip on the fingernail but also can prevent unnecessary damages to fingernails.

[0005] Another advantage of the invention is to provide an artificial nail tip and curing composition set and applying method thereof, which includes an Extend Gel for firmly affixing the artificial nail tips, namely GEL-X tips, to the surface of the fingernails.

[0006] Another advantage of the invention is to provide an artificial nail tip and curing composition set and applying method thereof, which protects the fingernails and reduces the UV damage.

[0007] Additional advantages and features of the invention will become apparent from the description which follows, and may be realized by means of the instrumentalities and combinations particular point out in the appended claims.

[0008] According to the present invention, the foregoing and other objects and advantages are attained by an artificial nail tip and curing composition set, comprising:

[0009] at least an artificial nail tip, namely GEL-X tip, an Extended Gel, an edge-off flat brush, a nail filing device, a pH Bonder, and a Non-Acidic Gel Primer, wherein the pH Bonder forms a pH Bonder layer on a surface of a fingernail, wherein the Non-Acidic Gel Primer forms a Non-Acidic Gel Prime layer overlapped on the pH Bonder layer, wherein the Extend Gel forms a Extend Gel layer overlapped on the Non-Acidic Gel Prime layer, wherein an underside contact surface of the GEL-X tip is filed by the nail filing device to provide a rough affixing surface and the Extend Gel is applied on an underside contact surface of the Gel-X tip by the edge-off flat brush until at least the rough affixing surface is completely covered with the Extend Gel to form an adhering layer, wherein the underside contact surface

of the Gel-X tip is contacted with the Extend Gel layer on the fingernail in such a manner that the Gel-X tip is firmly affixed on the fingernail.

[0010] According to the present invention, the foregoing and other objects and advantages are also attained by an applying method of a nail tip composition, comprising the steps of:

[0011] (a) forming a PH Bonder layer on a surface of a fingernail by applying a pH Bonder to the fingernail;

[0012] (b) forming a Non-Acidic Gel Primer layer overlapped on the pH Bonder layer by applying a Non-Acidic Gel Primer to the fingernail;

[0013] (c) forming an Extend Gel layer overlapped on the Non-Acidic Gel Primer layer using an edge-off flat brush by applying a layer of the Extend Gel to the fingernail;

[0014] (d) providing a rough affixing surface on an underside contact surface of the Gel-X tip, wherein the step (d) can be applied before the step (a);

[0015] (e) applying the Extend Gel to the underside contact surface of the Gel-X tip to form an Extend Gel tip layer, for example using an edge-off flat brush;

[0016] (f) pressing the Gel-X tip onto the fingernail gradually from base to tip thereof to prevent air bubbles and to ensure a tight seal; and

[0017] (g) pressing down on the Gel-X tip and the fingernail by an external force until the Extend Gel tip layer on the rough affixing surface 411 is cured and hardened with the Extend Gel layer on the fingernail 90, such that the Gel-X tip is firmly attached to the fingernail.

[0018] In one embodiment, the step (d) can be accomplished by filing the underside contact surface of the Gel-X tip by a nail filing device.

[0019] In one embodiment, the step (g) can be executed under exposure to UV or LED lighting for at least two minutes for curing and hardening.

[0020] Still further objects and advantages will become apparent from a consideration of the ensuing description and drawings.

[0021] These and other objectives, features, and advantages of the present invention will become apparent from the following detailed description, the accompanying drawings, and the appended claims.

BRIEF DESCRIPTION OF THE DRAWINGS

[0022] FIG. 1 is a schematic view illustrating an applying method of an artificial nail tip and curing composition set according to a preferred embodiment of the present invention.

[0023] FIG. 2 is a schematic view illustrating the applying method of the artificial nail tip and curing composition set according to the above preferred embodiment of the present invention.

[0024] FIG. 3 is a schematic view illustrating the applying method of the artificial nail tip and curing composition set according to the above preferred embodiment of the present invention.

[0025] FIG. 4 is a schematic view illustrating the applying method of the artificial nail tip and curing composition set according to the above preferred embodiment of the present invention.

[0026] FIG. 5 is a schematic view illustrating the applying method of the artificial nail tip and curing composition set according to the above preferred embodiment of the present invention.

[0027] FIG. 6 is a schematic view illustrating the applying method of the artificial nail tip and curing composition set according to the above preferred embodiment of the present invention.

[0028] FIG. 7 is a schematic view illustrating the applying method of the artificial nail tip and curing composition set according to the above preferred embodiment of the present invention.

[0029] FIG. 8 is a schematic view illustrating the applying method of the artificial nail tip and curing composition set according to the above preferred embodiment of the present invention.

[0030] FIG. 9 is a schematic view illustrating the applying method of the artificial nail tip and curing composition set according to the above preferred embodiment of the present invention.

[0031] FIG. 10 is a schematic view illustrating the applying method of the artificial nail tip and curing composition set according to the above preferred embodiment of the present invention.

[0032] FIG. 11 is a perspective view illustrating the nail tip curing composition set according to the above preferred embodiment of the present invention.

[0033] FIG. 12 is a table illustrating the chemical compositions of the Extend Gel of the nail tip curing composition according to the above preferred embodiment of the present invention.

[0034] FIG. 13 is a table illustrating the chemical compositions of the MSDS top gel coat of the nail tip curing composition according to the above preferred embodiment of the present invention.

[0035] FIG. 14 is a flow diagram of the applying method of the artificial nail tip and curing composition set according to the above preferred embodiment of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0036] The following description is disclosed to enable any person skilled in the art to make and use the present invention. Preferred embodiments are provided in the following description only as examples and modifications will be apparent to those skilled in the art. The general principles defined in the following description would be applied to other embodiments, alternatives, modifications, equivalents, and applications without departing from the spirit and scope of the present invention.

[0037] Referring to FIG. 1 to FIG. 11 of the drawings, an artificial nail tip and curing composition set 100 according to a preferred embodiment is illustrated, wherein the nail tip curing composition set 100 comprises an Extend Gel 10, an edge-off flat brush 20, a nail filing device 30, a plurality of artificial nail tips 40 embodied and named as GEL-X tips, a pH Bonder 50, and a Non-Acidic Gel Primer 60, as shown in FIG. 11. The Extend Gel 10 is used as GEL-X tips adhesive.

[0038] As shown in FIG. 1 of the drawings, before using the nail tip curing composition set 100, a fingernail 90 is wiped to be cleaned by a cotton pad 91 soaked with rubbing alcohol, so that the fingernail 90 is cleaned to remove oil and dust thereon.

[0039] As shown in FIG. 2 of the drawings, the pH Bonder 50 is applied on the fingernail 90 to form a pH Bonder layer on the surface of the fingernail 90. When the pH Bonder layer applied on the fingernail 90 is aired rapidly, the Non-Acidic Gel Primer 60 is applied on the fingernail 90. Specifically, as shown in FIG. 3 of the drawings, the Non-Acidic Gel Primer 60 is applied on the fingernail 90 to form a Non-Acidic Gel Prime layer on the surface of the fingernail 90, which is overlapped on the pH Bonder layer. When the Non-Acidic Gel Prime layer applied on the fingernail 90 is aired rapidly, the edge-off flat brush 20 is used to apply a thin layer of the Extend Gel 10 to the fingernail 90. Specifically, as shown in FIG. 4 of the drawings, the thin layer of the Extend Gel 10 is applied on the fingernail 90 to form an Extend Gel layer overlapped on the Non-Acidic Gel Prime layer.

[0040] As shown in FIG. 5 of the drawings, according to the preferred embodiment of the present invention, the Extend Gel layer formed by the Extend Gel 10 and overlapped on the Non-Acidic Gel Prime layer on the fingernail 90 is cured with a LED lamp 92 for a period of

time, such as about 30 seconds. Alternatively, the Extend Gel layer formed by the Extend Gel 10 and overlapped on the Non-Acidic Gel Prime layer on the fingernail 90 can also be cured with UV lamp for a period of time, such as about 2 minutes.

[0041] Regarding to the artificial nail tips, namely Gel-X tips 40, made of for example acrylic material, are used as the artificial nail tips according to the preferred embodiment of the present invention. Before attaching the Gel-X tips 40 on the fingernails, a rough affixing surface 411 is provided on an underside contact surface 41 of each Gel-X tip, which is the lower inner portion of the Gel-X tip having a surface area approximately equal to the surface area of the fingernail that the Gel-X tip is going to in contact with and affixing thereon. The rough affixing surface 411 can be made when it is manufacturing to provide a coarse surface other than the generally smooth surface required on the underside surface and topside surface of the finger nail. On the rough affixing surface 411, multiple indented grooves 412 are formed.

[0042] According to the preferred embodiment, the rough affixing surface 411 is provided by means of the nail filing device 30. The underside contact surface 41 is filed by the nail filing device 30 to form the rough affixing surface 411 having multiple small indented grooves 412 thereon, as shown in Fig. 6. It is appreciated that a health fingernail will generally have a smooth surface. In order to enhance the affixing of the artificial nail tip on the fingernail surface, the conventional way to slightly file the fingernail surface and then apply the glue thereon for adhering the artificial nail tip on the fingernail. To prevent causing unnecessary damages to the fingernail, the formation and providing of the rough affixing surface 411 on the underside contact surface 41 of the Gel-X tip 40 is essential for affixing the Gel-X tips 40 to the fingernails according to the preferred embodiment of the present invention.

[0043] In other words, starting from a base portion of the underside contact surface 41 of the Gel-X tip, generally half of the underside contact surface 41 is filed to form the rough affixing surface 411. The rough affixing surface 411, especially the presence of the multiple indented grooves 412 formed thereon making the surface 411 a coarse surface, greatly increases the contacting surface area of the rough affixing surface 411 to pick up the Extend Gel 10. Therefore, when the Gel-X tip adhesive, i.e. the Extend Gel 10, can be retained to the

rough affixing surface 411 of each of the Gel-X tips 40 than a smooth surface having the same size.

[0044] As shown in FIG. 7 of the drawings, a small drop of the Extend Gel 10, which is enough to cover the natural fingernail, is applied to a base portion of the rough affixing surface 411 of the underside contact surface 41 of Gel-X nail tip 40 by the edge-off flat brush 20, generally about 1/3 of the surface area of the natural fingernail, to form an Extend Gel tip layer on the rough affixing surface 411 of the Gel-X tip 40. The Extend Gel 10 will flow into the multiple indented grooves 412 and be retained therein. In other words, the multiple indented grooves 412 of the rough affixing surface 411 can retain more Extend Gel 10. Therefore, when the rough affixing surface 411 is in contact with the fingernail surface, the Extend Gel layer will attach and affix the Gel-X tip 40 onto the fingernail 90, wherein the retaining of the Extend Gel 10 in the multiple indented grooves 412 substantially increases the thickness of the Extend Gel 10 between the Gel-X tip 40 and the fingernail 90 that effectively increases the adhering bonding of the Gel-X tip 40 and the fingernail 90 so as to more firmly affix the Gel-X top 40 with the fingernail 90 with less curing and hardening time.

[0045] Referring to in FIG. 8 of the drawings, after the Extend Gel 10 is applied on the rough affixing surface 411 of the underside contact surface 41 of the Gel-X tip 40, the Gel-X nail tip 40 is pressed onto the fingernail 90 gradually from base to tip of the Gel-X nail tip 40 to prevent air bubbles or lifting and to ensure a tight seal.

[0046] As shown in FIG. 9 of the drawings, an external force is pressed down the Gel-X tip 40 and the fingernail 90, and then the fingernail 90 with the Gel-X tip 40 are cured with the LED lighting 93 of the LED lamp 92 for seconds such as about 10 seconds. The LED lamp 93, which can be a LED flashlight as shown in Fig. 9 or a bridge light for sitting on a table surface to define a receiving cavity between the LEDs provided on an underside of the bridge light and the table surface, so that fingernail 90 with the Gel-X tip 40 pressing down thereon can be placed within the receiving cavity and treated under the LED lighting 93. Eventually, the external force pressing down the Gel-X tip 40 and the fingernail 90 is removed and the LED lighting 93 from the LED lamp 92 is applied around the Gel-X tip 40 to ensure all sides of the Gel-X tip 40 being cured and hardened.

[0047] Then, as shown in FIG. 10 of the drawings, the entire fingernail 90 with the Gel-X tip 40 affixed thereon can be cured under the LED lamp 92 for a few seconds such as 30 seconds, until the Extend Gel tip layer on the rough affixing surface 411 of the underside contact surface 41 of the Gel-X tip 40 and the Extend Gel layer on the fingernail 90 are cured and hardened integrally to form a bonding Extend Gel layer between the Gel-X tip 40 and the fingernail 90. In maximum, application of about 2 minutes of LED lighting to affix the Gel-X tip 40 on the fingernail 90 could be more than enough. Alternatively, the entire fingernail 90 is cured by the UV lamp for a few minutes such as about 2 minutes.

[0048] It is worth mentioning that since the Extend Gel 10 of the Extend Gel tip layer is retained in the indented grooves 412 of the rough affixing surface 411 of the underside contact surface 41 of the Gel-X tip 40, the Extend Gel 10 retained in the indented grooves 412 can act like roots to hold the Gel-X tip 40 to the fingernail 90 that greatly enhances the bonding and adhering ability of the cured and hardened bonding Extend Gel layer between Gel-X tip 40 and the fingernail 90 while a relatively thin bonding Extend Gel layer is enough to affix the Gel-X tip 40 on the fingernail 90 firmly for a relatively longer lift span for at least couple weeks. Also, the thinner the bonding Extend Gel layer, the shorter the curing and hardening time by the LED lighting is required that can greatly shorten the total time required for affixing ten nail tips to ten fingernails of the user.

[0049] To detach the Gel-X tips 40 from the fingernails 90, the user may simply soaking the fingernail 90 with the Gel-X tip 40 thereon into an acetone for a period of time and the Gel-X tip 40 will separate from the fingernail 90.

[0050] It is worth mentioning that the Extend Gel 10 is used as a GEL-X tip adhesive. The chemical formulation of the Extend Gel 10 is based on acrylate/methacrylate chemistry, and contains monofunctional and multifunctional acrylate/methacrylate monomers/oligomers and photoinitiators. The Extend Gel 10 in the uncured state is a potential sensitizer, a primary eye irritant and a moderate skin irritant.

[0051] Specifically, as shown in FIG. 12 of the drawings, the chemical composition of the Extend Gel 10 includes a Polyurethane Acrylate Oligomer 11, a 2-Hydroxyethyl methacrylate 12, a 1-Hydroxycyclohexyl phenyl ketone 13 and a Phenylbis(2,4,6-trimethylbenzoyl)phosphine oxide 14.

[0052] More specifically, a basic proportion range of the Polyurethane Acrylate Oligomer 11 by weight is 60.0-80.0%, a basic proportion range of the 2-Hydroxyethyl methacrylate 12 by weight is 10.0-15.0%, a basic proportion range of the 1-Hydroxycyclohexyl phenyl ketone 13 by weight is 1.0-5.0%, and a basic proportion range of the Phenylbis(2,4,6-trimethylbenzoyl)phosphine oxide 14 by weight is 1.0-5.0%.

[0053] It is worth mentioning that the specific gravity of the Extend Gel 10 is 1.06-1.08 and the Vapor Pressure, (mm Hg) is C:<0.01.

[0054] As shown in FIG. 11 and FIG. 13 of the drawings, the nail tip composition kit 100 further comprises a MSDS top gel coat 70 applied on the fingernail 90.

[0055] Specifically, as shown in FIG. 13 of the drawings, the chemical composition of the MSDS top gel coat 70 includes a Polyurethane Acrylate Oligomers 71, a 2-Hydroxyethyl methacrylate(HEMA) 72, a Di-Trimethylolpropane Tetraacrylate 73, a PETMP 74, and a Polyether-Modified Polysiloxane 75.

[0056] More specifically, a basic proportion range of the Polyurethane Acrylate Oligomers 71 by weight is 60.0-80.0%, a basic proportion range of the 2-Hydroxyethyl methacrylate (HEMA) 72 by weight is 10.0-15.0%, a basic proportion range of the Di-Trimethylolpropane Tetraacrylate 73 by weight is 1.0-5.0%, a basic proportion range of the PETMP 74 by weight is 1.0-5.0%, and a basic proportion range of the Polyether-Modified Polysiloxane 75 is 0.0-1.0%.

[0057] It is worth mentioning that the boiling point of the MSDS top gel coat 70 is 212°F.

[0058] It is worth mentioning that the flash point (°F) of the MSDS top gel coat 70 is 96°F.

[0059] It is worth mentioning that the specific gravity of the MSDS top gel coat 70 is 1.14.

[0060] It is worth mentioning that when users need to take off the GEL-X tips 40, they can either wrap in cotton soaked acetone in the foil or literally soak the fingernail 90 with the GEL-X tips 40 in a bowl of acetone.

[0061] Also referring to FIG. 14 of the drawings, an applying method of a nail tip composition according to the above preferred embodiment comprises the following steps.

[0062] (1000) Use rubbing alcohol to wipe the fingernail 90 to clean off oil and dust on the fingernail 90.

[0063] (2000) Apply the pH Bonder 50 to the fingernail 90 so as to form a pH Bonder layer on the surface of the fingernail 90.

[0064] (3000) Apply the Non-Acidic Gel Primer 60 to the fingernail 90 so as to form a Non-Acidic Gel Primer layer overlapped on the pH Bonder layer.

[0065] (4000) Use the edge-off flat brush 20 to apply a thin layer of the Extend Gel 10 to the fingernail 90 so as to form an Extend Gel layer overlapped on the Non-Acidic Gel Primer layer.

[0066] (5000) Cure the Extend Gel 10 on the fingernail 90 with the LED lamp 92 for about 30 seconds.

[0067] (6000) File the underside contact surface 41 of the Gel-X tip 40 by the nail filing device 30 to form the rough affixing surface 411.

[0068] (7000) Use the edge-off flat brush 20 to apply a small drop of the Extend Gel 10 to at least a base portion of the rough affixing surface 411 of the underside contact surface 41 of the Gel-X tip 40 to form an Extend Gel tip layer.

[0069] (8000) The Gel-X tip 40 is pressed onto the fingernail 90 gradually from base to tip thereof to prevent air bubbles and to ensure a tight seal.

[0070] (9100) An external force is pressed down on the Gel-X tip 40 and the fingernail 90 until the Extend Gel tip layer on the rough affixing surface 411 is cured and hardened with the Extend Gel layer on the fingernail 90, such that the Gel-X tip 40 is firmly attached to the fingernail 90.

[0071] (9110) Cure the Gel-X tip 40 with the LED flashlight 93 for about 10 seconds.

[0072] (9120) The external force is removed and the LED flashlight 93 is rotated around the Gel-X tip 40 to ensure all sides cured.

[0073] (9200) Cure the entire fingernail 90 in the LED lamp 92 for 30 seconds.

[0074] It is worth mentioning that, alternatively, the step (5000) is able to be replaced by a step: (5100) Cure the Extend Gel 10 on the fingernail 90 with the UV lamp for about 2 minutes.

[0075] It is worth mentioning that alternatively, the step (9200) is able to be replaced by a step: (9210) Cure entire fingernail 90 in the UV lamp for about 2 minutes.

[0076] It is worth mentioning that in the applying method of the nail tip composition kit 100 according to the preferred embodiment of the present invention, the chemical composition of the Extend Gel 10 includes 60.0-80.0% by weight of the Polyurethane Acrylate Oligomer 11, 10.0-15.0% by weight of the 2-Hydroxyethyl methacrylate 12, 1.0-5.0% by weight of the 1-Hydroxycyclohexyl phenyl ketone 13, and 1.0-5.0% by weight of the Phenylbis(2,4,6-trimethylbenzoyl)phosphine oxide 14.

[0077] It is worth mentioning that the applying method of the nail tip composition kit 100 further comprises a step of: applying the MSDS top gel coat 70 used on the fingernail 90.

[0078] It is worth mentioning that in the applying method of the nail tip composition kit 100 according to the preferred embodiment of the present invention, the chemical composition of the MSDS top gel coat 70 includes 60.0-80.0% by weight of the Polyurethane Acrylate Oligomers 71, 10.0-15.0% by weight of the 2-Hydroxyethyl methacrylate (HEMA) 72, 1.0-5.0% by weight of the Di-Trimethylolpropane Tetraacrylate 73, 1.0-5.0% by weight of the PETMP 74, and 0.0-1.0% by weight of the Polyether-Modified Polysiloxane 75.

[0079] One skilled in the art will understand that the embodiment of the present invention as shown in the drawings and described above is exemplary only and not intended to be limiting.

[0080] It will thus be seen that the objects of the present invention have been fully and effectively accomplished. The embodiments have been shown and described for the purposes

of illustrating the functional and structural principles of the present invention and is subject to change without departure from such principles. Therefore, this invention includes all modifications encompassed within the spirit and scope of the following claims.

WHAT IS CLAIMED IS:

1. An artificial nail tip and curing composition set for a fingernail, comprising:

an Extend Gel; and

one or more Gel-X tips, wherein an affixing surface is provided on at least a base portion of an underside contact surface of each of said Gel-X tips, wherein an Extend Gel tip layer is formed by applying said Extend Gel to at least a portion of said affixing surface of said underside contact surface of said Gel-X tip to be affixed on the fingernail, wherein said Extend Gel of said Extend Gel tip layer is able to be retained on said affixing surface of said underside contact surface of said Gel-X tip, wherein a Gel layer is formed on a surface of the fingernail after applying said Extend Gel on the surface of the fingernail to form an Extend Gel layer;

thereby said Gel-X tip with said Extend Gel tip layer is pressed onto the fingernail with said Gel layer applied thereon gradually from base to tip and affixed on the fingernail by curing and hardening under a lighting selected from the group consisting of LED lighting and UV lighting for a period of time to form a bonding Extend Gel layer between said Gel-X tip and the fingernail while said Extend Gel on the surface of the fingernail enhancing a bonding and adhering ability of said bonding Extend Gel layer between said Gel-X tip and the fingernail.

2. The artificial nail tip and curing composition set, as recited in claim 1, wherein said Extend Gel includes 60.0-80.0% by weigh of the Polyurethane Acrylate Oligomer, 10.0-15.0% by weight of the 2-Hydroxyethyl methacrylate, 1.0-5.0% by weight of the 1-Hydroxycyclohexyl phenyl ketone, and 1.0-5.0% by weight of the Phenylbis(2,4,6-trimethylbenzoyl)phosphine oxide.

3. The artificial nail tip and curing composition set, as recited in claim 1, further comprising a MSDS top gel coat adapted for applying on the fingernail, wherein said MSDS top gel coat includes 60.0-80.0% by weight of a Polyurethane Acrylate Oligomers, 10.0-15.0% by weight of a 2-Hydroxyethyl methacrylate (HEMA), 1.0-5.0% by weight of a Di-

Trimethylolpropane Tetraacrylate, 1.0-5.0% by weight of a PETMP 74, and 0.0-1.0% by weight of a Polyether-Modified Polysiloxane 75.

4. The artificial nail tip and curing composition set, as recited in claim 2, further comprising a MSDS top gel coat adapted for applying on the fingernail, wherein said MSDS top gel coat includes 60.0-80.0% by weight of a Polyurethane Acrylate Oligomers, 10.0-15.0% by weight of a 2-Hydroxyethyl methacrylate (HEMA), 1.0-5.0% by weight of a Di-Trimethylolpropane Tetraacrylate, 1.0-5.0% by weight of a PETMP 74, and 0.0-1.0% by weight of a Polyether-Modified Polysiloxane 75.

5. The artificial nail tip and curing composition set, as recited in one of claims 1-4, further comprising a nail filing device, wherein said affixing surfaces are rough affixing surface after filing said underside contact surfaces of said Gel-X tips with said nail filing device respectively.

6. The artificial nail tip and curing composition set, as recited in claim 1, further comprising a pH Bonder and a Non-Acidic Gel Primer, wherein before said Extend Gel is applied to the surface of the fingernail, said pH-Bonder is applied to the surface of a fingernail to form a pH Bonder layer and said Non-Acidic Gel Primer is applied overlappedly on said pH Bonder layer to form a Non-Acidic Gel Prime layer on said pH Bonder layer, wherein said Extend Gel layer is applied overlappedly on said Non-Acidic Gel Prime layer.

7. The artificial nail tip and curing composition set, as recited in claim 2, further comprising a pH Bonder and a Non-Acidic Gel Primer, wherein before said Extend Gel is applied to the surface of the fingernail, said pH-Bonder is applied to the surface of a fingernail to form a pH Bonder layer and said Non-Acidic Gel Primer is applied overlappedly on said pH Bonder layer to form a Non-Acidic Gel Prime layer on said pH Bonder layer, wherein said Extend Gel layer is applied overlappedly on said Non-Acidic Gel Prime layer.

8. The artificial nail tip and curing composition set, as recited in claim 3, further comprising a pH Bonder and a Non-Acidic Gel Primer, wherein before said Extend Gel is applied to the surface of the fingernail, said pH-Bonder is applied to the surface of a fingernail to form a pH Bonder layer and said Non-Acidic Gel Primer is applied overlappedly

on said pH Bonder layer to form a Non-Acidic Gel Prime layer on said pH Bonder layer, wherein said Extend Gel layer is applied overlappedly on said Non-Acidic Gel Prime layer.

9. The artificial nail tip and curing composition set, as recited in claim 4, further comprising a pH Bonder and a Non-Acidic Gel Primer, wherein before said Extend Gel is applied to the surface of the fingernail, said pH-Bonder is applied to the surface of a fingernail to form a pH Bonder layer and said Non-Acidic Gel Primer is applied overlappedly on said pH Bonder layer to form a Non-Acidic Gel Prime layer on said pH Bonder layer, wherein said Extend Gel layer is applied overlappedly on said Non-Acidic Gel Prime layer.

10. The artificial nail tip and curing composition set, as recited in claim 5, further comprising a pH Bonder and a Non-Acidic Gel Primer, wherein before said Extend Gel is applied to the surface of the fingernail, said pH-Bonder is applied to the surface of a fingernail to form a pH Bonder layer and said Non-Acidic Gel Primer is applied overlappedly on said pH Bonder layer to form a Non-Acidic Gel Prime layer on said pH Bonder layer, wherein said Extend Gel layer is applied overlappedly on said Non-Acidic Gel Prime layer.

11. An applying method of artificial nail tip on a fingernail, comprising the steps of:

(a) forming an Extend Gel layer on a surface of the fingernail by applying a layer of the Extend Gel to the surface of the fingernail;

(b) applying said Extend Gel to an affixing surface provided on an underside contact surface of the Gel-X tip;

(c) pressing said Gel-X tip onto the fingernail gradually from base to tip thereof to prevent air bubbles and to ensure a tight seal; and

(d) pressing down on said Gel-X tip and said fingernail by an external pressing force until said Extend Gel tip layer on said affixing surface is cured and hardened with said Extend Gel layer on the fingernail to form a bonding Extend Gel layer between said Gel-X tip and the fingernail, such that the Gel-X tip is firmly affixed to the fingernail.

12. The applying method, as recited in claim 11, wherein the step (d) further comprises a step of exposing the fingernail with said Gel-X tip pressed thereon under a lighting selected from the group consisting LED lighting and UV lighting for ten seconds to two minutes.

13. The applying method, as recited in claim 11, further comprising a step of filing said underside contact surface of said Gel-X tip to form a rough affixing surface as said affixing surface thereof.

14. The applying method, as recited in claim 12, further comprising a step of filing said underside contact surface of said Gel-X tip to form a rough affixing surface as said affixing surface thereof.

15. The applying method, as recited in claim 11, further comprising a step of filing said underside contact surface of said Gel-X tip to form a rough affixing surface as said affixing surface thereof, wherein multiple indented grooves are formed on said rough affixing surface.

16. The applying method, as recited in claim 12, further comprising a step of filing said underside contact surface of said Gel-X tip to form a rough affixing surface as said affixing surface thereof, wherein multiple indented grooves are formed on said rough affixing surface.

17. The applying method, as recited in one of claims 11-16, before the step (a), further comprising the steps of:

(i) forming a PH Bonder layer on the surface of the fingernail by applying a pH Bonder to the fingernail; and

(ii) forming a Non-Acidic Gel Primer layer overlapped on the pH Bonder layer by applying a Non-Acidic Gel Primer to the fingernail;

wherein said Extend Gel layer is applied overlappedly on said Non-Acidic Gel Primer layer.

18. The applying method, as recited in one of claims 11-16, wherein said Extend Gel includes 60.0-80.0% by weigh of a Polyurethane Acrylate Oligomer, 10.0-15.0% by weight of a 2-Hydroxyethyl methacrylate, 1.0-5.0% by weight of a 1-Hydroxycyclohexyl phenyl ketone, and 1.0-5.0% by weight of a Phenylbis(2,4,6-trimethylbenzoyl)phosphine oxide.

19. The applying method, as recited in claim 17, wherein said Extend Gel includes 60.0-80.0% by weigh of a Polyurethane Acrylate Oligomer, 10.0-15.0% by weight of a 2-Hydroxyethyl methacrylate, 1.0-5.0% by weight of a 1-Hydroxycyclohexyl phenyl ketone, and 1.0-5.0% by weight of a Phenylbis(2,4,6-trimethylbenzoyl)phosphine oxide.

20. The applying method, as recited in one of claims 11-16, further comprising a step of applying a MSDS top gel coat on the fingernail, wherein said MSDS top gel coat includes 60.0-80.0% by weight of a Polyurethane Acrylate Oligomers, 10.0-15.0% by weight of a 2-Hydroxyethyl methacrylate (HEMA), 1.0-5.0% by weight of a Di-Trimethylolpropane Tetraacrylate, 1.0-5.0% by weight of a PETMP 74, and 0.0-1.0% by weight of a Polyether-Modified Polysiloxane 75.

21. The applying method, as recited in claim 17, further comprising a step of applying a MSDS top gel coat on the fingernail, wherein said MSDS top gel coat includes 60.0-80.0% by weight of a Polyurethane Acrylate Oligomers, 10.0-15.0% by weight of a 2-Hydroxyethyl methacrylate (HEMA), 1.0-5.0% by weight of a Di-Trimethylolpropane Tetraacrylate, 1.0-5.0% by weight of a PETMP 74, and 0.0-1.0% by weight of a Polyether-Modified Polysiloxane 75.

22. The applying method, as recited in claim 18, further comprising a step of applying a MSDS top gel coat on the fingernail, wherein said MSDS top gel coat includes 60.0-80.0% by weight of a Polyurethane Acrylate Oligomers, 10.0-15.0% by weight of a 2-Hydroxyethyl methacrylate (HEMA), 1.0-5.0% by weight of a Di-Trimethylolpropane Tetraacrylate, 1.0-5.0% by weight of a PETMP 74, and 0.0-1.0% by weight of a Polyether-Modified Polysiloxane 75.

23. The applying method, as recited in claim 19, further comprising a step of applying a MSDS top gel coat on the fingernail, wherein said MSDS top gel coat includes

60.0-80.0% by weight of a Polyurethane Acrylate Oligomers, 10.0-15.0% by weight of a 2-Hydroxyethyl methacrylate (HEMA), 1.0-5.0% by weight of a Di-Trimethylolpropane Tetraacrylate, 1.0-5.0% by weight of a PETMP 74, and 0.0-1.0% by weight of a Polyether-Modified Polysiloxane 75.

24. The applying method, as recited in one of claims 11-16, wherein said Extend Gel includes 60.0-80.0% by weigh of a Polyurethane Acrylate Oligomer, 10.0-15.0% by weight of a 2-Hydroxyethyl methacrylate, 1.0-5.0% by weight of a 1-Hydroxycyclohexyl phenyl ketone, and 1.0-5.0% by weight of a Phenylbis(2,4,6-trimethylbenzoyl)phosphine oxide.

25. The applying method, as recited in claim 17, wherein said Extend Gel includes 60.0-80.0% by weigh of a Polyurethane Acrylate Oligomer, 10.0-15.0% by weight of a 2-Hydroxyethyl methacrylate, 1.0-5.0% by weight of a 1-Hydroxycyclohexyl phenyl ketone, and 1.0-5.0% by weight of a Phenylbis(2,4,6-trimethylbenzoyl)phosphine oxide.

26. The applying method, as recited in claim 18, wherein said Extend Gel includes 60.0-80.0% by weigh of a Polyurethane Acrylate Oligomer, 10.0-15.0% by weight of a 2-Hydroxyethyl methacrylate, 1.0-5.0% by weight of a 1-Hydroxycyclohexyl phenyl ketone, and 1.0-5.0% by weight of a Phenylbis(2,4,6-trimethylbenzoyl)phosphine oxide.

27. The applying method, as recited in claim 19, wherein said Extend Gel includes 60.0-80.0% by weigh of a Polyurethane Acrylate Oligomer, 10.0-15.0% by weight of a 2-Hydroxyethyl methacrylate, 1.0-5.0% by weight of a 1-Hydroxycyclohexyl phenyl ketone, and 1.0-5.0% by weight of a Phenylbis(2,4,6-trimethylbenzoyl)phosphine oxide.

28. The applying method, as recited in claim 20, wherein said Extend Gel includes 60.0-80.0% by weigh of a Polyurethane Acrylate Oligomer, 10.0-15.0% by weight of a 2-Hydroxyethyl methacrylate, 1.0-5.0% by weight of a 1-Hydroxycyclohexyl phenyl ketone, and 1.0-5.0% by weight of a Phenylbis(2,4,6-trimethylbenzoyl)phosphine oxide.

29. The applying method, as recited in claim 21, wherein said Extend Gel includes 60.0-80.0% by weigh of a Polyurethane Acrylate Oligomer, 10.0-15.0% by weight of a 2-

Hydroxyethyl methacrylate, 1.0-5.0% by weight of a 1-Hydroxycyclohexyl phenyl ketone, and 1.0-5.0% by weight of a Phenylbis(2,4,6-trimethylbenzoyl)phosphine oxide.

30. The applying method, as recited in claim 22, wherein said Extend Gel includes 60.0-80.0% by weigh of a Polyurethane Acrylate Oligomer, 10.0-15.0% by weight of a 2-Hydroxyethyl methacrylate, 1.0-5.0% by weight of a 1-Hydroxycyclohexyl phenyl ketone, and 1.0-5.0% by weight of a Phenylbis(2,4,6-trimethylbenzoyl)phosphine oxide.

31. The applying method, as recited in claim 23, wherein said Extend Gel includes 60.0-80.0% by weigh of a Polyurethane Acrylate Oligomer, 10.0-15.0% by weight of a 2-Hydroxyethyl methacrylate, 1.0-5.0% by weight of a 1-Hydroxycyclohexyl phenyl ketone, and 1.0-5.0% by weight of a Phenylbis(2,4,6-trimethylbenzoyl)phosphine oxide.

32. An artificial nail tip and curing composition set for a fingernail, comprising:

an Extend Gel; and

one or more Gel-X tips, wherein an affixing surface is provided on at least a base portion of an underside contact surface of each of said Gel-X tips, wherein an Extend Gel tip layer is formed by applying said Extend Gel to at least a portion of said affixing surface of said underside contact surface of said Gel-X tip to be affixed on the fingernail, wherein said Extend Gel of said Extend Gel tip layer is able to be retained on said affixing surface of said underside contact surface of said Gel-X tip, wherein a Gel layer is formed on a surface of the fingernail after applying said Extend Gel on the surface of the fingernail to form an Extend Gel layer;

thereby said Gel-X tip with said Extend Gel tip layer is pressed onto the fingernail with said Gel layer applied thereon gradually from base to tip and affixed on the fingernail by curing and hardening under a lighting selected from the group consisting of LED lighting and UV lighting for a period of time to form a bonding Extend Gel layer between said Gel-X tip and the fingernail while said Extend Gel on the surface of the fingernail enhancing a bonding and adhering ability of said bonding Extend Gel layer between said Gel-X tip and the fingernail.

33. The artificial nail tip and curing composition set, as recited in claim 32, wherein said Extend Gel includes 60.0-80.0% by weigh of the Polyurethane Acrylate Oligomer, 10.0-15.0% by weight of the 2-Hydroxyethyl methacrylate, 1.0-5.0% by weight of the 1-Hydroxycyclohexyl phenyl ketone, and 1.0-5.0% by weight of the Phenylbis(2,4,6-trimethylbenzoyl)phosphine oxide.

34. The artificial nail tip and curing composition set, as recited in claim 32, further comprising a MSDS top gel coat adapted for applying on the fingernail, wherein said MSDS top gel coat includes 60.0-80.0% by weight of a Polyurethane Acrylate Oligomers, 10.0-15.0% by weight of a 2-Hydroxyethyl methacrylate (HEMA), 1.0-5.0% by weight of a Di-Trimethylolpropane Tetraacrylate, 1.0-5.0% by weight of a PETMP 74, and 0.0-1.0% by weight of a Polyether-Modified Polysiloxane 75.

35. The artificial nail tip and curing composition set, as recited in claim 33, further comprising a MSDS top gel coat adapted for applying on the fingernail, wherein said MSDS top gel coat includes 60.0-80.0% by weight of a Polyurethane Acrylate Oligomers, 10.0-15.0% by weight of a 2-Hydroxyethyl methacrylate (HEMA), 1.0-5.0% by weight of a Di-Trimethylolpropane Tetraacrylate, 1.0-5.0% by weight of a PETMP 74, and 0.0-1.0% by weight of a Polyether-Modified Polysiloxane 75.

36. The artificial nail tip and curing composition set, as recited in claim 32, further comprising a nail filing device, wherein said affixing surfaces are rough affixing surface after filing said underside contact surfaces of said Gel-X tips with said nail filing device respectively.

37. The artificial nail tip and curing composition set, as recited in claim 35, further comprising a nail filing device, wherein said affixing surfaces are rough affixing surface after filing said underside contact surfaces of said Gel-X tips with said nail filing device respectively, wherein multiple indented grooves are formed on each of said rough affixing surfaces.

38. The artificial nail tip and curing composition set, as recited in claim 32, further comprising a pH Bonder and a Non-Acidic Gel Primer, wherein before said Extend Gel is applied to the surface of the fingernail, said pH-Bonder is applied to the surface of a

fingernail to form a pH Bonder layer and said Non-Acidic Gel Primer is applied overlappedly on said pH Bonder layer to form a Non-Acidic Gel Prime layer on said pH Bonder layer, wherein said Extend Gel layer is applied overlappedly on said Non-Acidic Gel Prime layer.

39. The artificial nail tip and curing composition set, as recited in claim 36, further comprising a pH Bonder and a Non-Acidic Gel Primer, wherein before said Extend Gel is applied to the surface of the fingernail, said pH-Bonder is applied to the surface of a fingernail to form a pH Bonder layer and said Non-Acidic Gel Primer is applied overlappedly on said pH Bonder layer to form a Non-Acidic Gel Prime layer on said pH Bonder layer, wherein said Extend Gel layer is applied overlappedly on said Non-Acidic Gel Prime layer.

40. An applying method of artificial nail tip on a fingernail, comprising the steps of:

(a) forming an Extend Gel layer on a surface of the fingernail by applying a layer of the Extend Gel to the surface of the fingernail;

(b) applying said Extend Gel to an affixing surface provided on an underside contact surface of the Gel-X tip;

(c) pressing said Gel-X tip onto the fingernail gradually from base to tip thereof to prevent air bubbles and to ensure a tight seal; and

(d) pressing down on said Gel-X tip and said fingernail by an external pressing force until said Extend Gel tip layer on said affixing surface is cured and hardened with said Extend Gel layer on the fingernail to form a bonding Extend Gel layer between said Gel-X tip and the fingernail, such that the Gel-X tip is firmly affixed to the fingernail.

41. The applying method, as recited in claim 40, wherein the step (d) further comprises a step of exposing the fingernail with said Gel-X tip pressed thereon under a lighting selected from the group consisting LED lighting and UV lighting for ten seconds to two minutes.

42. The applying method, as recited in claim 40, further comprising a step of filing said underside contact surface of said Gel-X tip to form a rough affixing surface as said affixing surface thereof.

43. The applying method, as recited in claim 41, further comprising a step of filing said underside contact surface of said Gel-X tip to form a rough affixing surface as said affixing surface thereof, wherein multiple indented grooves are formed on said rough affixing surface.

44. The applying method, as recited in claim 40, before the step (a), further comprising the steps of:

(i) forming a PH Bonder layer on the surface of the fingernail by applying a pH Bonder to the fingernail; and

(ii) forming a Non-Acidic Gel Primer layer overlapped on the pH Bonder layer by applying a Non-Acidic Gel Primer to the fingernail;

wherein said Extend Gel layer is applied overlappedly on said Non-Acidic Gel Primer layer.

45. The applying method, as recited in claim 43, before the step (a), further comprising the steps of:

(i) forming a PH Bonder layer on the surface of the fingernail by applying a pH Bonder to the fingernail; and

(ii) forming a Non-Acidic Gel Primer layer overlapped on the pH Bonder layer by applying a Non-Acidic Gel Primer to the fingernail;

wherein said Extend Gel layer is applied overlappedly on said Non-Acidic Gel Primer layer.

46. The applying method, as recited in claim 40, wherein said Extend Gel includes 60.0-80.0% by weigh of a Polyurethane Acrylate Oligomer, 10.0-15.0% by weight of a 2-

Hydroxyethyl methacrylate, 1.0-5.0% by weight of a 1-Hydroxycyclohexyl phenyl ketone, and 1.0-5.0% by weight of a Phenylbis(2,4,6-trimethylbenzoyl)phosphine oxide.

47. The applying method, as recited in claim 46, further comprising a step of applying a MSDS top gel coat on the fingernail, wherein said MSDS top gel coat includes 60.0-80.0% by weight of a Polyurethane Acrylate Oligomers, 10.0-15.0% by weight of a 2-Hydroxyethyl methacrylate (HEMA), 1.0-5.0% by weight of a Di-Trimethylolpropane Tetraacrylate, 1.0-5.0% by weight of a PETMP 74, and 0.0-1.0% by weight of a Polyether-Modified Polysiloxane 75.

48. The applying method, as recited in claim 43, wherein said Extend Gel includes 60.0-80.0% by weigh of a Polyurethane Acrylate Oligomer, 10.0-15.0% by weight of a 2-Hydroxyethyl methacrylate, 1.0-5.0% by weight of a 1-Hydroxycyclohexyl phenyl ketone, and 1.0-5.0% by weight of a Phenylbis(2,4,6-trimethylbenzoyl)phosphine oxide.

49. The applying method, as recited in claim 48, further comprising a step of applying a MSDS top gel coat on the fingernail, wherein said MSDS top gel coat includes 60.0-80.0% by weight of a Polyurethane Acrylate Oligomers, 10.0-15.0% by weight of a 2-Hydroxyethyl methacrylate (HEMA), 1.0-5.0% by weight of a Di-Trimethylolpropane Tetraacrylate, 1.0-5.0% by weight of a PETMP 74, and 0.0-1.0% by weight of a Polyether-Modified Polysiloxane 75.

50. The applying method, as recited in claim 45, wherein said Extend Gel includes 60.0-80.0% by weigh of a Polyurethane Acrylate Oligomer, 10.0-15.0% by weight of a 2-Hydroxyethyl methacrylate, 1.0-5.0% by weight of a 1-Hydroxycyclohexyl phenyl ketone, and 1.0-5.0% by weight of a Phenylbis(2,4,6-trimethylbenzoyl)phosphine oxide.

51. The applying method, as recited in claim 50, further comprising a step of applying a MSDS top gel coat on the fingernail, wherein said MSDS top gel coat includes 60.0-80.0% by weight of a Polyurethane Acrylate Oligomers, 10.0-15.0% by weight of a 2-Hydroxyethyl methacrylate (HEMA), 1.0-5.0% by weight of a Di-Trimethylolpropane Tetraacrylate, 1.0-5.0% by weight of a PETMP 74, and 0.0-1.0% by weight of a Polyether-Modified Polysiloxane 75.

52. An artificial nail tip and curing composition set for a fingernail, comprising:

an Extend Gel for forming an Extend Gel layer on a surface of a fingernail, wherein said Extend Gel includes 60.0-80.0% by weigh of the Polyurethane Acrylate Oligomer, 10.0-15.0% by weight of the 2-Hydroxyethyl methacrylate, 1.0-5.0% by weight of the 1-Hydroxycyclohexyl phenyl ketone, and 1.0-5.0% by weight of the Phenylbis(2,4,6-trimethylbenzoyl)phosphine oxide; and

at least a Gel-X tip which is adapted to be pressed onto the respective fingernail with said Extend Gel layer applied thereon gradually from base to tip and affixed on the fingernail by curing and hardening under a lighting for a period of time to form a bonding Extend Gel layer between said Gel-X tip and said fingernail for enhancing a bonding and adhering ability of said bonding Extend Gel layer between said Gel-X tip and the fingernail.

53. The artificial nail tip and curing composition set, as recited in claim 52, wherein an Extend Gel tip layer is formed by applying said Extend Gel to at least a portion of an underside contact surface of said Gel-X tip to be affixed on the fingernail before pressing said Gel-X tip onto the respective fingernail, such that said Extend Gel of said Extend Gel tip layer is able to be retained on said underside contact surface of said Gel-X tip.

54. The artificial nail tip and curing composition set, as recited in claim 52, wherein said lighting is selected from the group consisting of LED lighting and UV lighting.

55. The artificial nail tip and curing composition set, as recited in claim 53, wherein said lighting is selected from the group consisting of LED lighting and UV lighting.

56. The artificial nail tip and curing composition set, as recited in claim 52, further comprising a MSDS top gel coat adapted for applying on the fingernail, wherein said MSDS top gel coat includes 60.0-80.0% by weight of a Polyurethane Acrylate Oligomers, 10.0-15.0% by weight of a 2-Hydroxyethyl methacrylate (HEMA), 1.0-5.0% by weight of a Di-Trimethylolpropane Tetraacrylate, 1.0-5.0% by weight of a PETMP 74, and 0.0-1.0% by weight of a Polyether-Modified Polysiloxane 75.

57. The artificial nail tip and curing composition set, as recited in claim 53, further comprising a MSDS top gel coat adapted for applying on the fingernail, wherein said MSDS top gel coat includes 60.0-80.0% by weight of a Polyurethane Acrylate Oligomers, 10.0-15.0% by weight of a 2-Hydroxyethyl methacrylate (HEMA), 1.0-5.0% by weight of a Di-Trimethylolpropane Tetraacrylate, 1.0-5.0% by weight of a PETMP 74, and 0.0-1.0% by weight of a Polyether-Modified Polysiloxane 75.

58. The artificial nail tip and curing composition set, as recited in claim 54, further comprising a MSDS top gel coat adapted for applying on the fingernail, wherein said MSDS top gel coat includes 60.0-80.0% by weight of a Polyurethane Acrylate Oligomers, 10.0-15.0% by weight of a 2-Hydroxyethyl methacrylate (HEMA), 1.0-5.0% by weight of a Di-Trimethylolpropane Tetraacrylate, 1.0-5.0% by weight of a PETMP 74, and 0.0-1.0% by weight of a Polyether-Modified Polysiloxane 75.

59. The artificial nail tip and curing composition set, as recited in claim 55, further comprising a MSDS top gel coat adapted for applying on the fingernail, wherein said MSDS top gel coat includes 60.0-80.0% by weight of a Polyurethane Acrylate Oligomers, 10.0-15.0% by weight of a 2-Hydroxyethyl methacrylate (HEMA), 1.0-5.0% by weight of a Di-Trimethylolpropane Tetraacrylate, 1.0-5.0% by weight of a PETMP 74, and 0.0-1.0% by weight of a Polyether-Modified Polysiloxane 75.

60. The artificial nail tip and curing composition set, as recited in claim 53, wherein a rough affixing surface is provided on at least a base portion of said underside contact surface of Gel-X tip, wherein said Extend Gel of said Extend Gel tip layer is able to be retained on said affixing surface of said underside contact surface of said Gel-X tip.

61. The artificial nail tip and curing composition set, as recited in claim 60, wherein multiple indented grooves are formed on said rough affixing surface of said Gel-X tip for retaining said Extend Gel therein to form said Extend Gel tip layer.

62. An applying method of artificial nail tip on fingernail, comprising the steps of:

(a) forming an Extend Gel layer on a fingernail by applying a layer of the Extend Gel to the fingernail, wherein said Extend Gel includes 60.0-80.0% by weigh of the

Polyurethane Acrylate Oligomer, 10.0-15.0% by weight of the 2-Hydroxyethyl methacrylate, 1.0-5.0% by weight of the 1-Hydroxycyclohexyl phenyl ketone, and 1.0-5.0% by weight of the Phenylbis(2,4,6-trimethylbenzoyl)phosphine oxide;

(b) pressing a Gel-X tip onto the fingernail gradually from base to tip thereof to prevent air bubbles and to ensure a tight seal; and

(c) pressing down on said Gel-X tip and the fingernail by an external pressing force until said Gel-X tip layer is cured and hardened on the fingernail to form a bonding Extend Gel layer between said Gel-X tip and the fingernail, such that the Gel-X tip is firmly affixed to the fingernail.

63. The applying method, as recited in claim 62, before the step (b), further comprising a step of applying said Extend Gel to a rough affixing surface provided on said underside contact surface of the Gel-X tip to form an Extend Gel tip layer on an underside contact surface of said Gel-X tip, wherein when the Gel-X tip is pressed down on the fingernail, said Extend Gel tip layer on said underside contact surface of said Gel-X tip is cured and hardened with said Extend Gel layer on the fingernail to form said bonding Extend Gel layer between said Gel-X tip and the fingernail.

64. The applying method, as recited in claim 62, after the step (c), further comprising a step of:

(d) exposing the fingernail with said Gel-X tip pressed thereon under a lighting for ten seconds to two minutes.

65. The applying method, as recited in claim 63, after the step (c), further comprising a step of:

(d) exposing the fingernail with said Gel-X tip pressed thereon under a lighting for ten seconds to two minutes.

66. The applying method, as recited in claim 64, wherein said lighting is selected from the group consisting of LED lighting and UV lighting.

67. The applying method, as recited in claim 65, wherein said lighting is selected from the group consisting of LED lighting and UV lighting.

68. The applying method, as recited in claim 62, wherein an underside contact surface of said Gel-X tip is rough affixing surface for retaining said Extend Gel to form said bonding Extend Gel layer between said rough affixing surface of said Gel-X tip and the fingernail.

69. The applying method, as recited in claim 65, wherein an underside contact surface of said Gel-X tip is rough affixing surface for retaining said Extend Gel applied thereon to form said Extend Gel tip layer.

70. The applying method, as recited in claim 68, before the step (b), further comprising a step of filing said underside contact surface of said Gel-X tip to form said rough affixing surface with said multiple indented grooves.

71. The applying method, as recited in claim 69, before the step (b), further comprising a step of filing said underside contact surface of said Gel-X tip to form said rough affixing surface with said multiple indented grooves.

72. The applying method, as recited in claim 64, wherein the step (d) further comprises a step of applying said lighting to sides of said Gel-X tip.

73. The applying method, as recited in claim 65, wherein the step (d) further comprises a step of applying said lighting to sides of said Gel-X tip.

74. The applying method, as recited in claim 69, wherein the step (d) further comprises a step of applying said lighting to sides of said Gel-X tip.

75. The applying method, as recited in claim 71, wherein the step (d) further comprises a step of applying said lighting to sides of said Gel-X tip.

76. The applying method, as recited in claim 62, further comprising a step of applying a MSDS top gel coat on the fingernail, wherein said MSDS top gel coat includes 60.0-80.0% by weight of a Polyurethane Acrylate Oligomers, 10.0-15.0% by weight of a 2-

Hydroxyethyl methacrylate (HEMA), 1.0-5.0% by weight of a Di-Trimethylolpropane Tetraacrylate, 1.0-5.0% by weight of a PETMP 74, and 0.0-1.0% by weight of a Polyether-Modified Polysiloxane 75.

77. The applying method, as recited in claim 63, further comprising a step of applying a MSDS top gel coat on the fingernail, wherein said MSDS top gel coat includes 60.0-80.0% by weight of a Polyurethane Acrylate Oligomers, 10.0-15.0% by weight of a 2-Hydroxyethyl methacrylate (HEMA), 1.0-5.0% by weight of a Di-Trimethylolpropane Tetraacrylate, 1.0-5.0% by weight of a PETMP 74, and 0.0-1.0% by weight of a Polyether-Modified Polysiloxane 75.

78. The applying method, as recited in 65, further comprising a step of applying a MSDS top gel coat on the fingernail, wherein said MSDS top gel coat includes 60.0-80.0% by weight of a Polyurethane Acrylate Oligomers, 10.0-15.0% by weight of a 2-Hydroxyethyl methacrylate (HEMA), 1.0-5.0% by weight of a Di-Trimethylolpropane Tetraacrylate, 1.0-5.0% by weight of a PETMP 74, and 0.0-1.0% by weight of a Polyether-Modified Polysiloxane 75.

79. The applying method, as recited in 68, further comprising a step of applying a MSDS top gel coat on the fingernail, wherein said MSDS top gel coat includes 60.0-80.0% by weight of a Polyurethane Acrylate Oligomers, 10.0-15.0% by weight of a 2-Hydroxyethyl methacrylate (HEMA), 1.0-5.0% by weight of a Di-Trimethylolpropane Tetraacrylate, 1.0-5.0% by weight of a PETMP 74, and 0.0-1.0% by weight of a Polyether-Modified Polysiloxane 75.

80. The applying method, as recited in 69, further comprising a step of applying a MSDS top gel coat on the fingernail, wherein said MSDS top gel coat includes 60.0-80.0% by weight of a Polyurethane Acrylate Oligomers, 10.0-15.0% by weight of a 2-Hydroxyethyl methacrylate (HEMA), 1.0-5.0% by weight of a Di-Trimethylolpropane Tetraacrylate, 1.0-5.0% by weight of a PETMP 74, and 0.0-1.0% by weight of a Polyether-Modified Polysiloxane 75.

81. The applying method, as recited in 71, further comprising a step of applying a MSDS top gel coat on the fingernail, wherein said MSDS top gel coat includes 60.0-80.0%

by weight of a Polyurethane Acrylate Oligomers, 10.0-15.0% by weight of a 2-Hydroxyethyl methacrylate (HEMA), 1.0-5.0% by weight of a Di-Trimethylolpropane Tetraacrylate, 1.0-5.0% by weight of a PETMP 74, and 0.0-1.0% by weight of a Polyether-Modified Polysiloxane 75.

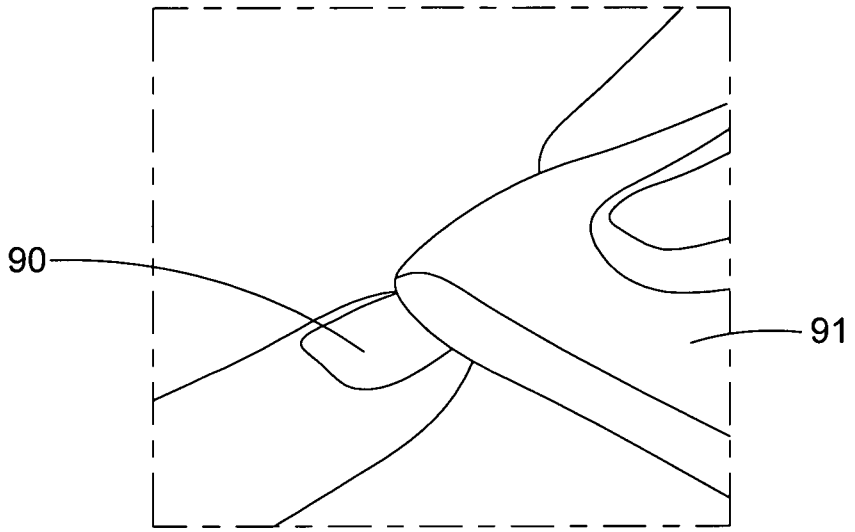

FIG.1

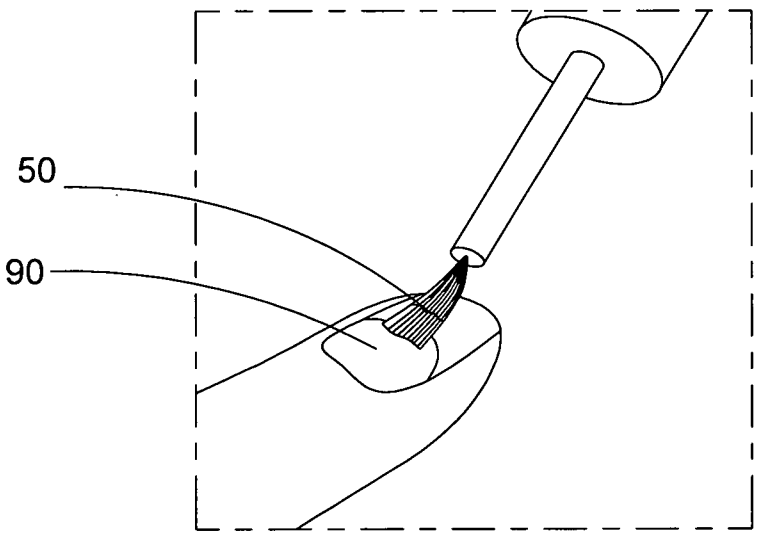

FIG.2

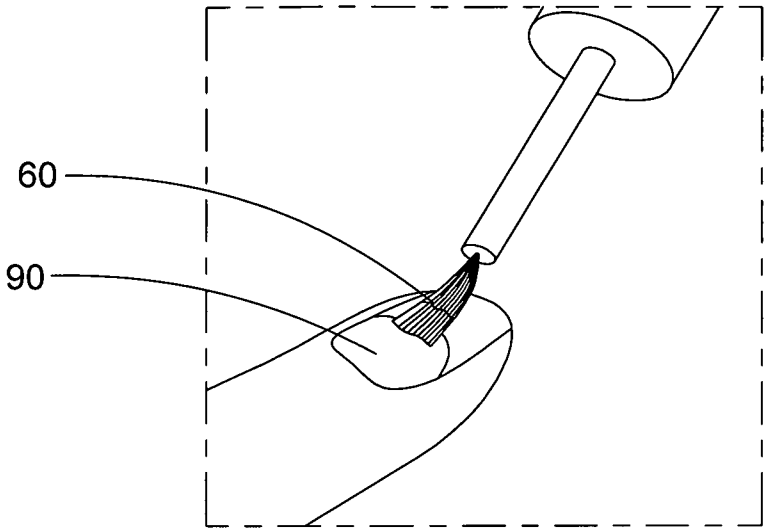

FIG.3

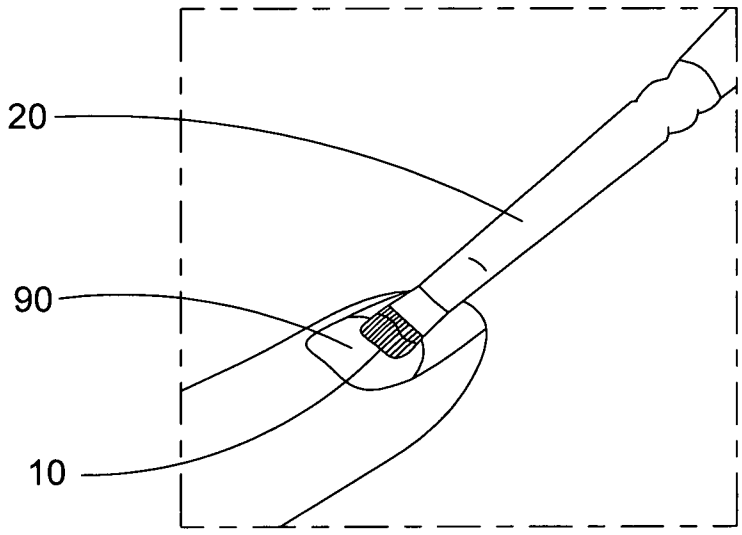

FIG.4

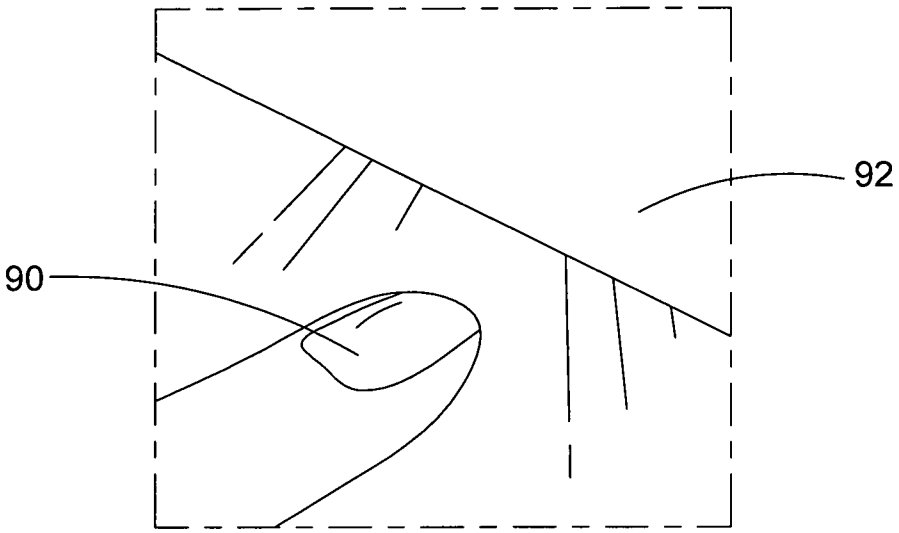

FIG.5

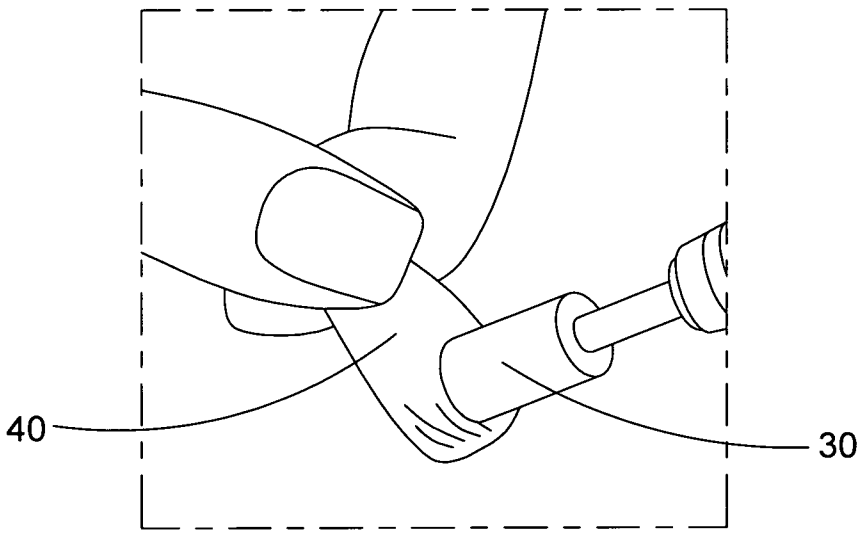

FIG.6

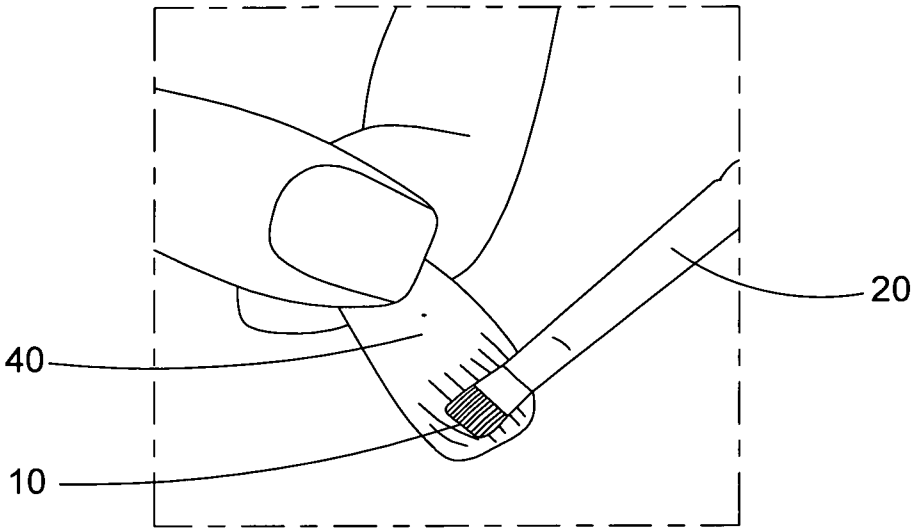

FIG.7

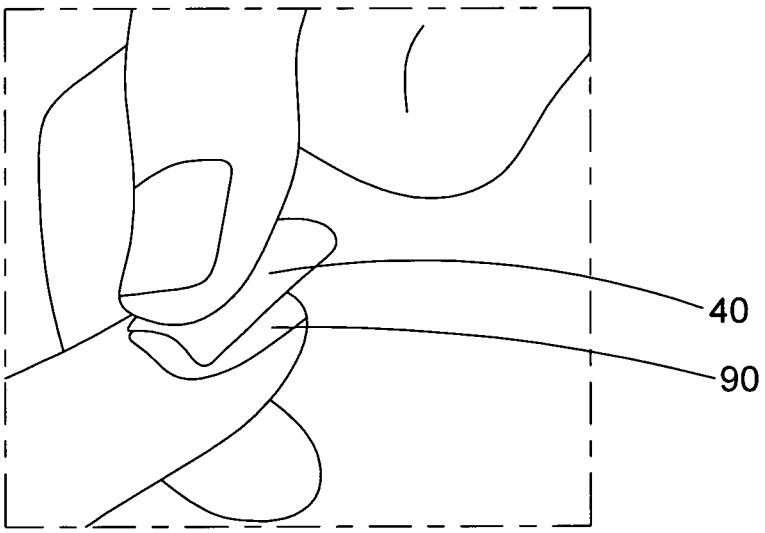

FIG.8

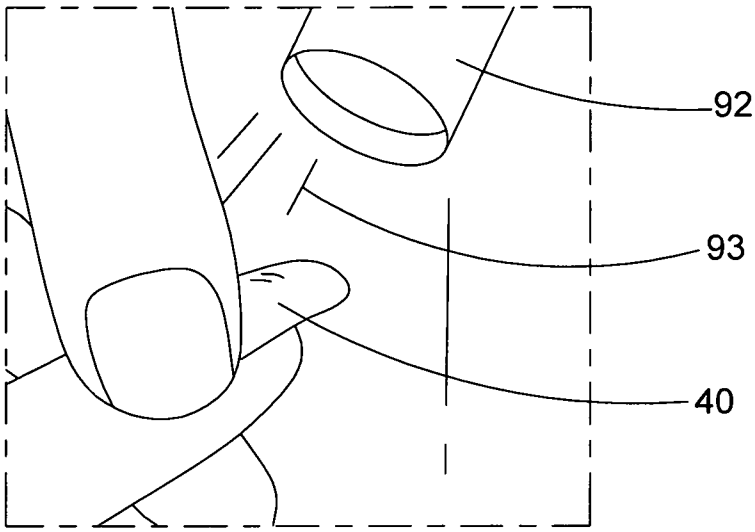

FIG.9

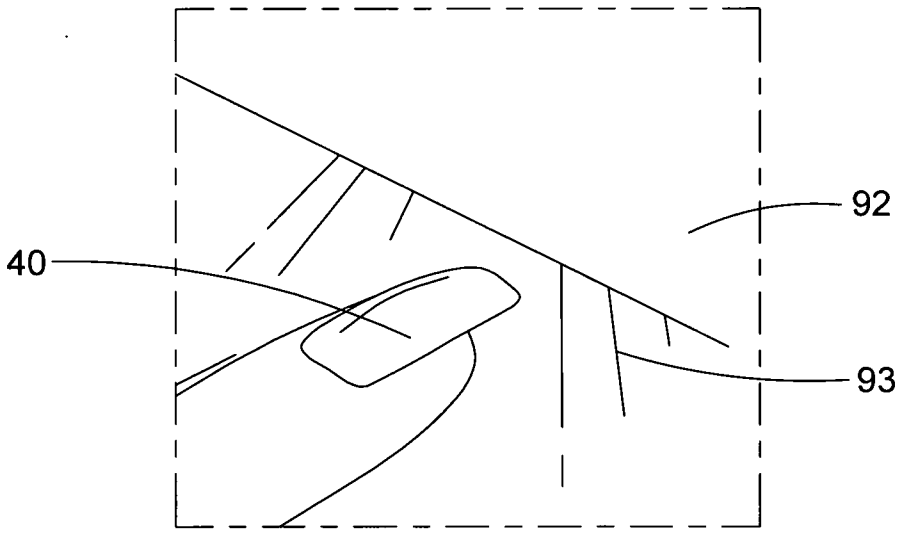

FIG.10

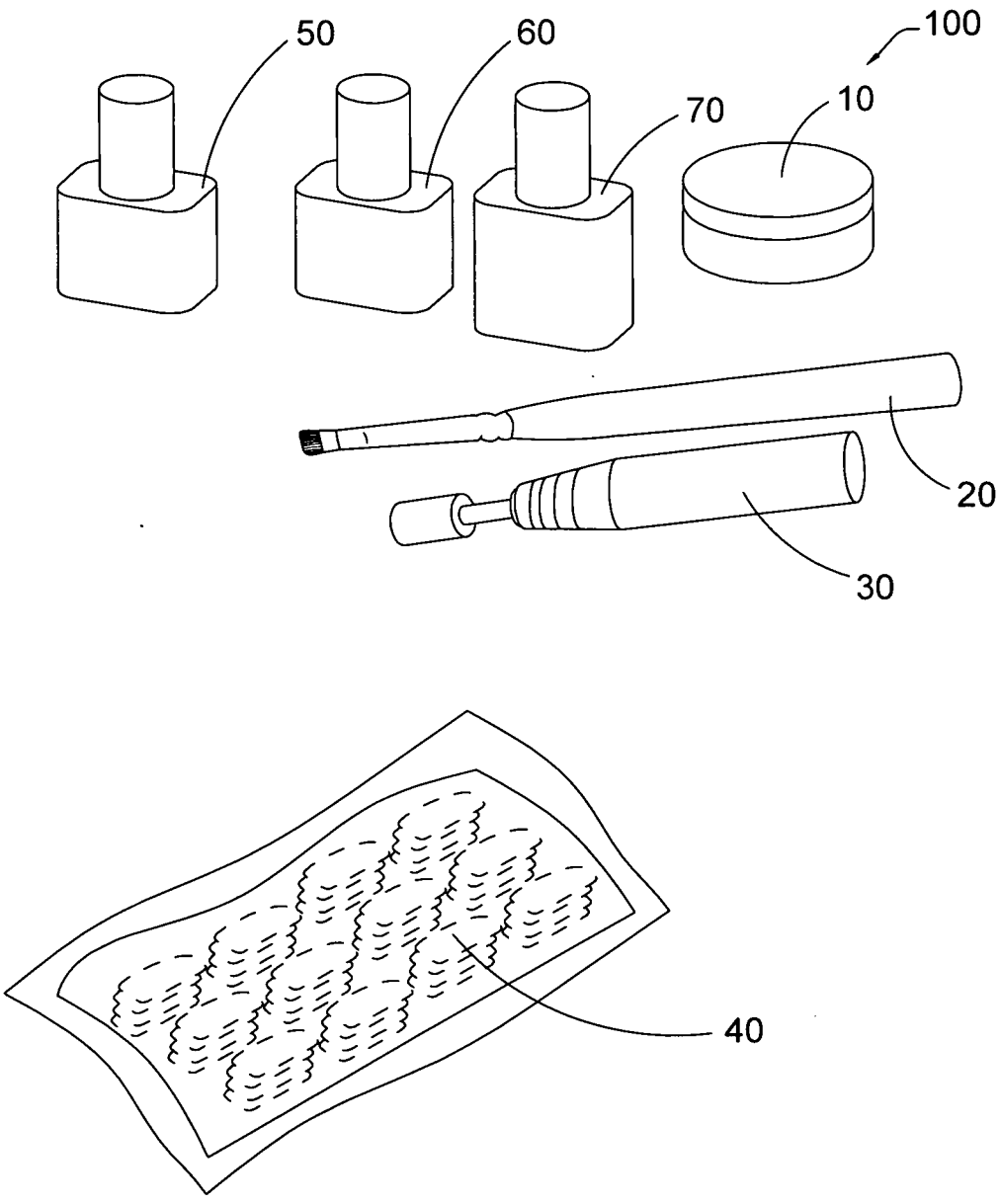

FIG.11

Extend Gel 10		
CHEMICAL NAME	CAS NUMBER	WT/WT %
Polyurethane Acrylate Oligomer 11	NA	60.0-80.0%
2-Hydroxyethyl methacrylate 12	868-77-9	10.0-15.0%
1-Hydroxycyclohexyl phenyl ketone 13	947-19-3	1.0-5.0%
Phenylbis(2,4,6-trimethylbenzoyl)phosphine oxide 14	162881-26-7	1.0-5.0%

FIG.12

MSDS top gel coat 70			
CHEMICAL NAME	CAS #	EINECS #	%
Polyurethane Acrylate Oligomers 71	Exempt	N/A	35.0-50.0%
2-Hydroxyethyl methacrylate(HEMA) 72	868-77-9	N/A	15.0-30.0%
Di-Trimethylolpropane Tetraacrylate 73	94108-97-1	N/A	10.0-25.0%
PETMP 74	7575-23-7	N/A	5.0-10.0%
Polyether-Modified Polysiloxane 75	157479-55-5	N/A	0.0-1.0%

FIG.13

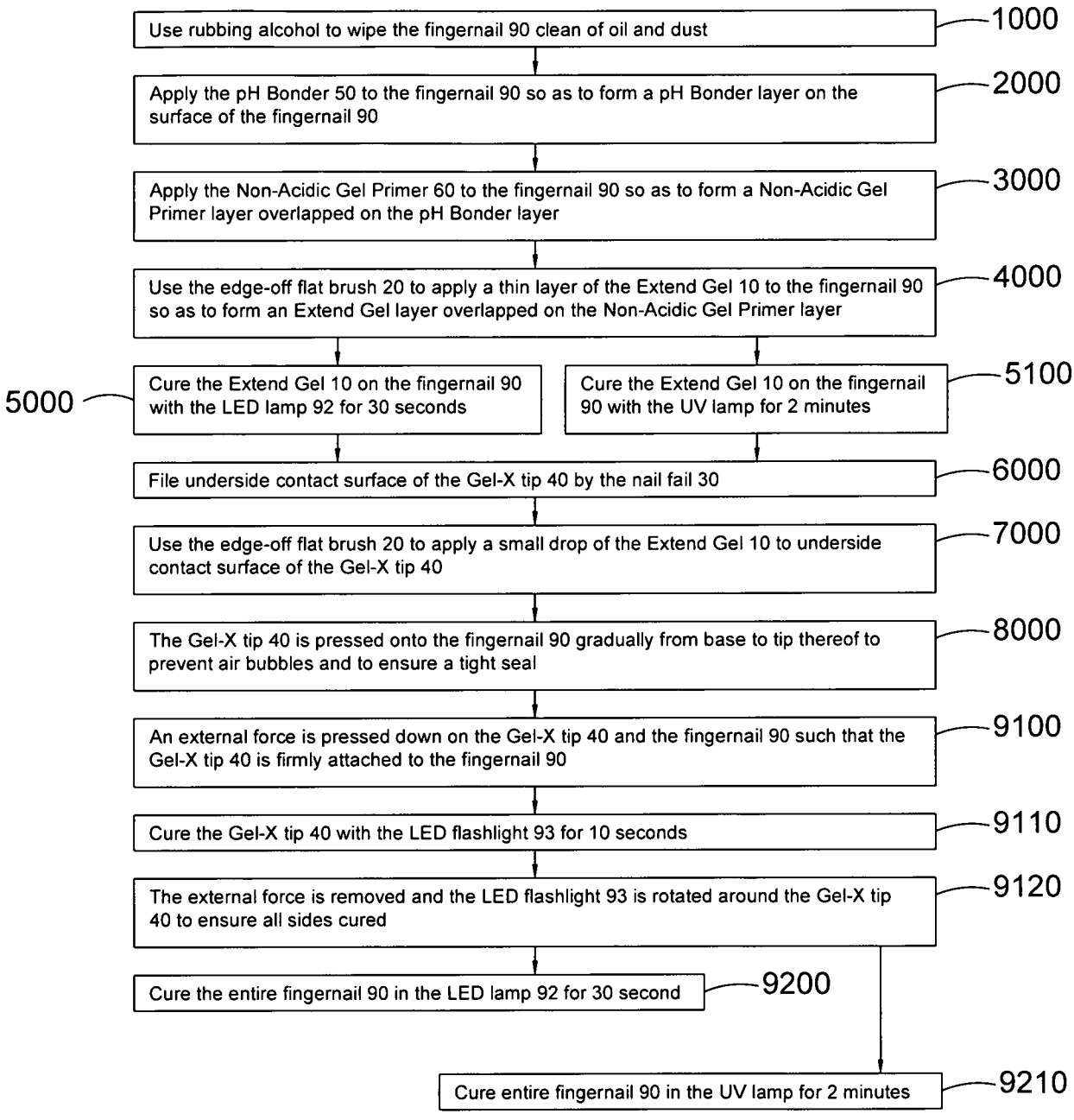
Use rubbing alcohol to wipe the fingernail 90 clean of oil and dust
1000
Apply the pH Bonder 50 to the fingernail 90 so as to form a pH Bonder layer on the surface of the fingernail 90
2000
Apply the Non-Acidic Gel Primer 60 to the fingernail 90 so as to form a Non-Acidic Gel Primer layer overlapped on the pH Bonder layer
3000
Use the edge-off flat brush 20 to apply a thin layer of the Extend Gel 10 to the fingernail 90 so as to form an Extend Gel layer overlapped on the Non-Acidic Gel Primer layer
4000
5000
Cure the Extend Gel 10 on the fingernail 90 with the LED lamp 92 for 30 seconds
Cure the Extend Gel 10 on the fingernail 90 with the UV lamp for 2 minutes
5100
File underside contact surface of the Gel-X tip 40 by the nail fail 30
6000
Use the edge-off flat brush 20 to apply a small drop of the Extend Gel 10 to underside contact surface of the Gel-X tip 40
7000
The Gel-X tip 40 is pressed onto the fingernail 90 gradually from base to tip thereof to prevent air bubbles and to ensure a tight seal
8000
An external force is pressed down on the Gel-X tip 40 and the fingernail 90 such that the Gel-X tip 40 is firmly attached to the fingernail 90
9100
Cure the Gel-X tip 40 with the LED flashlight 93 for 10 seconds
9110
The external force is removed and the LED flashlight 93 is rotated around the Gel-X tip 40 to ensure all sides cured
9120
Cure the entire fingernail 90 in the LED lamp 92 for 30 second
9200
Cure entire fingernail 90 in the UV lamp for 2 minutes
9210

FIG.14

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 19/00007

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - A45D 31/00, A61K 8/35, A61K 8/55 (2019.01)
CPC - A45D 31/00, A61K 2800/594, A61K 2800/81

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
See Search History Document

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
See Search History Document

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
See Search History Document

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y --- A	Apres Nail Official "How to apply Apres Gel-X! No-damage, soak-off gel nail extensions!" Published: 11 August 2017 (11.08.2017) (https://www.youtube.com/watch?v=KvUkLmYHl0w) pg 1-30	1, 5/1, 6, 10/1, 11-17, 33, 36, 38-45 --- 2, (5, 10)/2, 7, 18-19, 24-27, 33, 46, 48, 50, 52-55, 60-75 --- 3-4, 5/(3-4), 8-9, 10/(3-4), 20-23, 28-31, 34-35, 37, 47, 49, 51, 56-59, 76-81
Y --- A	US 2011/0256079 A1 (Kozachek) 20 October 2011 (20.10.2011) para [0014]; [0016]-[0017]; [0021]; [0032]	2, (5, 10)/2, 7, 18-19, 24-27, 33, 46, 48, 50, 52-55, 60-75 --- 3-4, 5/(3-4), 8-9, 10/(3-4), 20-23, 28-31, 34-35, 37, 47, 49, 51, 56-59, 76-81
A	US 2014/0099449 A1 (Tielemans et al.) 10 April 2014 (10.04.2014) whole document	1-81
A	EP 0 730 011 A1 (ROHM GMBH) 4 September 1996 (04.09.1996) whole document	1-81
A	US 2017/0056306 A1 (Zhen) 2 March 2017 (02.03.2017) whole document	1-81
A	US 2015/0224045 A1 (Cali Chem, Inc.) 13 August 2015 (13.08.2015) whole document	1-81

☒ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
9 May 2019	06 JUN 2019
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-8300	Authorized officer: Lee W. Young PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (January 2015)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 19/00007

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2017/0333334 A1 (Arkema France) 23 November 2017 (23.11.2017) whole document	1-81