

## TECHNOLOGY DEVELOPMENT AGREEMENT

This Technology Development Agreement (the "Agreement") is effective as of June 27, 2016 (the "Effective Date") by and between Eminess Technologies, Inc., an Arizona corporation ("Eminess"), and Nanophase Technologies Corp., a Delaware corporation ("Nanophase").

### RECITALS

A.

Eminess is a manufacturer of formulated liquid polishing formulations that contain abrasive particles. These abrasive particles are dispersed into liquid polishing formulations to provide optimum performance and physical stability, which is achieved through the use of both physical processes and chemical systems. In an effort to maintain a competitive advantage in the polishing markets, Eminess desires to sponsor a research effort focused on expanding the available library of formulation technology to enhance Eminess's ability to disperse particles and formulate stable liquid dispersions of particles suitable for polishing applications.

B.

Nanophase is a manufacturer of unique nanoparticles using its proprietary processes as well as formulated liquid dispersions of particles, including some that may be suitable for polishing applications. Nanophase possesses sufficient expertise dispersing particles into stable liquid formulations to enable them to perform the technology development contemplated by this Agreement.

C.

Eminess desires to engage Nanophase to develop a new particle dispersion technology that Eminess can use to enhance and extend its existing product line and strengthen its position to provide customers with advanced liquid polishing formulations and maintain a competitive advantage in the applicable market.

D.

The parties desire to agree upon a process to transfer the Technology (as defined below) to Eminess upon development and to provide for the joint ownership of the Technology by Eminess and Nanophase.

NOW, THEREFORE, upon the mutual covenants contained herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

### TERMS AND CONDITIONS

1.

Statement of Objective. The objective of the technology development contemplated by this Agreement is to develop effective chemical formulations along with physical processes that enable the dispersion of particles into stable liquid formulations suitable for use in polishing applications (the "Technology"). Stable particle dispersions are defined as liquid formulations that contain particles that are free of agglomerates and are resistant to particle agglomeration during manufacture, storage, and use in polishing applications. In addition, stable particle dispersions possess certain physical attributes that prevent hard settling of particles which cannot be re-dispersed for use in polishing applications.

2.

Statement of Work. For a period of six-month following the Effective Date,

Nanophase shall perform the following work:

(a)

Stabilization Mechanisms to be Investigated.

Nanophase will investigate particle stabilization systems that impart stability as set forth in Section 1 above, and selected from one of several mechanisms: (1) electrostatic stabilization considering particle surface charge arising from the use of pH adjustment and appropriate counter-ionic components, (2) steric stabilization with adsorbed molecular constituents ensuring liquid formulation compatibility, and (3) electrosteric stabilization that is either a simple combination of electrostatic and steric stabilization or a stabilization with adsorbed or particle surface modification through the use of reactive molecules or polyelectrolytes.

Some general examples of chemical systems to explore will be through the use of polyethylene glycols, polyether type surfactants, other non-, cationic-, and non-anionic-surfactants, co-polymer systems, electrolytes, and combinations thereof.

Physical processes will inherently be explored during the preparation of candidate formulations and may include low and high shear mixing via various methods. It is expected that Nanophase will evaluate various physical means to aid in the physical dispersion of particles into liquid formulations containing chemical additives and communicate the methods used in sample preparation.

(b)

Experimental Designs and Instrumental Methods.

Nanophase will perform experiments that span the range from simple screening experiments, where chemical additives are added to liquid/particle mixtures and evaluated for dispersion efficacy, to elaborate statistical design of experiments (a "DOE") where many additives and combinations of additives are evaluated for dispersion effectiveness providing the opportunity for optimization via analysis of the DOE response surfaces in the appropriate software. For all experiments and responses will be selected to determine how effective the chemical system(s) are dispersing particles into stable liquid formulations. The compiled data and associated analyses will be made available to Eminess in context of the research effort.

The determination of particle dispersion effectiveness may be measured in many ways. The use of particle sizing instrumentation is an effective way to determine the effectiveness of a particle dispersion formulation. Examples of such instrumentation may include ensemble methods such as light scattering (laser diffraction, dynamic light scattering) or sedimentation, and non-ensemble methods such as single particle optical sizing. Another way to measure particle stability is through zeta potential measurements. Nanophase will perform measurements using the aforementioned techniques and provide relevant data describing the dispersion effectiveness of the systems explored, especially those that provide the clearest path to a stable liquid dispersion of particles suitable for polishing applications. It should be noted that suitable measurements beyond formulation characterization should be investigated and such measurements that will include performance tests via controlled polishing experiments. Measured responses from these tests will include material removal rates, surface roughness measurements, and will also monitor the formulation characteristics as a function of polishing time.

(c)

Reports and Documentation.

Technical data and written information on the research findings, including, but not limited

to, research reports and all technical data and information on designs, calculations, drawings, manufacturing processes, experiments, measurement and tests associated with dispersing particles into stable liquid dispersions will be provided to Eminess. This includes experimental designs including screening, linear, or factorial along with associated analyses and findings. Clear identification of the chemical components (molecular formula, IUPAC name, trade name, or CAS number) and their sources is required for successful communication of research findings.

(d)

#### Warranties

With respect to the services provided in this Agreement, Nanophase warrants in connection with such services, it will not use any ingredients that are known by Nanophase to be carcinogenic, mutagenic, or teratogenic. Only standard chemical hygiene practices and personal protective equipment are recommended for producing and/or handling such products, as defined in the product SDSs. Based on Nanophase's current knowledge, the acids and bases that are used to adjust such products' pH represent the most significant health and safety risk, which at the concentrations used, do not pose an extreme hazard. None of the waste streams from the manufacture of such products is currently classified/regulated as hazardous materials. Spent slurry from such products' use may or may not be deemed as hazardous materials depending on the composition of the substrates being polished, and need to be assessed on an individual basis by the entities involved in those activities.

3. Work Fees. For the research and development of the Technology as contemplated by this Agreement, Eminess shall pay to Nanophase a research and development fee of \$250,000. Eminess shall pay work fees within ten (10) days following the commencement of the Technology Transfer contemplated by Section 5 below.

4.

Ownership and Use of the Technology. Subject to other express provisions of this Agreement, Eminess and Nanophase will jointly own all Technology. Neither party acquires any rights, either express or implied, under any Background IP of the other unless expressly stated in this Agreement or another written agreement signed by authorized representatives of each of the parties. To the extent that any Background IP of Nanophase is incorporated into the Technology, Nanophase grants Eminess a nonexclusive, royalty-free, perpetual license to such Background IP solely in connection with the Technology. "Background IP" means intellectual property owned, created, conceived, or first reduced to practice by a party or its employees, affiliates, or independent contractors: (i) prior to the Effective Date, or (ii) after the Effective Date, through such party's efforts independent of the activities covered by this Agreement. Each party shall have the right to use and exploit the Technology, subject to the restrictions and provisions of this Agreement.

5.

Transfer of Technology. Eminess and Nanophase shall cooperate, in good faith, to cause the transfer of all Technology to Eminess in accordance with the process and procedure set forth on **Exhibit A**. Such transfer shall be completed no later than sixty (60) days after the execution date of this agreement.

6.

#### Confidentiality.

(a)

Eminess and Nanophase shall keep secret and confidential and not

disclose or use for any commercial purpose all information and data relating to (i) the other party's business, including but not limited to its intellectual property; (ii) the terms of this Agreement; or (iii) the Technology, including but not limited to specifications, processes, methods, formulas, production schedules and costs, experience, and any know-how.

(b)

The confidentiality obligations of the non-disclosing party set forth in subsection (a) above shall not apply to any information that (i) must be disclosed to comply with any other governmental rules or regulations; (ii) was lawfully in the possession of the non-disclosing party prior to disclosure from the disclosing party; (iii) was available to the public at the time of disclosure by the disclosing party or subsequently became available to the public through no fault of the non-disclosing party; (iv) becomes available to the non-disclosing party subsequent to the disclosure from the disclosing party from a third party who is under no confidentiality obligation to the disclosing party; (v) is required to be disclosed by the non-disclosing party pursuant to court order or legal process provided that the non-disclosing party shall give the disclosing party notice of such process and use its best efforts to afford the disclosing party the opportunity at disclosing party's expense to seek to quash or restrain such disclosure; or (vi) was or is independently developed by the non-disclosing party.

7.

Independent Contractor. Eminess and Nanophase are and will at all times remain independent contractors. Neither party shall hold itself out as an employee, agent or partner of the other party. Each party agrees to provide all worker benefits and insurance coverage for all its employees or agents as required by law and agrees to hold harmless and indemnify the other party for any and all claims arising out of any injury, disability or death of such party's employees or agents.

8.

Force Majeure. The parties hereto shall not be liable for failure of performance hereunder if such failure is occasioned by war, riot, rebellion, invasion, terrorist act, earthquake, storm, fire, flood, acts of God, interruption of transportation, embargo, explosion, inability to procure or shortage of supply of materials, governmental orders and restrictions, strike, lockout, or other labor troubles, or any other cause beyond the control of the parties hereto. Any party invoking Force Majeure shall notify the other party as soon as possible thereof and provide appropriate information on presumed cause and duration of the Force Majeure situation. The parties shall cooperate to minimize the adverse effects of Force Majeure on their performance of this Agreement.

9.

Miscellaneous.

(a)

Governing Law. This Agreement shall be governed and construed under the laws of the State of Arizona without regard to conflicts of laws provisions.

(b)

Jurisdiction. Any dispute relating to this Agreement shall be brought in the state or federal courts in Maricopa County, Arizona. By execution and delivery of this Agreement, with respect to such disputes, each of the parties knowingly, voluntarily and irrevocably to the exclusive jurisdiction of these courts.

(c)

Entire Agreement. This Agreement constitutes and expresses the entire

agreement and understanding between the parties hereto with respect to the subject matter, all revisions discussions, promises, representation, and understanding relative thereto, if any, being herein merged. This Agreement shall be binding upon and inure solely to the benefit of the parties hereto and their permitted assigns.

(d)

Counterparts. This Agreement may be executed in two or more original or facsimile counterparts (including via facsimile or portable document [PDF] format), each of which shall be deemed an original and all of which together shall constitute but one and the same instrument.

(e)

Severability. If any provision of this Agreement shall be invalid, illegal or unenforceable, it shall, to the extent possible, be modified in such manner as to be valid, legal and enforceable but so as most nearly to retain the intent of the parties. If such modification is not possible, such provision shall be severed from this Agreement. In either case the validity, legality and enforceability of the remaining provisions of this Agreement shall not in any way be affected or impaired thereby.

(f)

Waiver. No delay of or omission in the exercise of any right, power or remedy accruing to any party as a result of any breach or default by any other party under this Agreement shall impair any such right, power or remedy, nor shall it be construed as a waiver of or acquiescence in any such breach or default, or of or in any similar breach or default occurring later. No waiver of any single breach or default shall be deemed a waiver of any other breach or default occurring before or after that waiver. No term, covenant or condition of this Agreement shall be deemed to have been waived unless such waiver is in writing.

(g)

Assignment. Neither this Agreement nor any claim arising directly or indirectly out of or in connection with the performance of either party shall be assigned by either party hereto without the prior written consent of the other party.

(h)

Notices. Any notice, communication or invoice required or permitted to be given under this Agreement shall be in writing, unless the parties agree in writing to the contrary and shall be deemed sufficiently given when delivered in person or transmitted by facsimile (confirmed by registered or certified mail) or when deposited in the United States mail, registered or certified, postage prepaid, addressed as follows:

	Eminess Technologies, Inc. 7272 East Indian School Road Suite 350 Scottsdale, AZ 85251 Attn: Dan Koharko	Nanophase Technologies Corp. 1319 Marquette Drive Romeoville, IL 60446 Attn: Jess Jankowski
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or to such other address as may be specified from time to time in a written notice given by such party.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed in duplicate by their duly authorized representatives as of the date first above written.

**LEGAL ADDRESSES AND BANKING DETAILS OF THE PARTIES**

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_____	_____
_____	_____
_____	_____