

DISTRIBUTOR AGREEMENT

THIS AGREEMENT, dated as of October 24, 2005 is between JOHNSON MATTHEY CATALOG COMPANY, INC., a Delaware corporation, d/b/a ALFA AESAR (hereinafter referred to as "ALFA AESAR"), having a mailing address of 30 Bond Street, Ward Hill, MA 01835-8099 and Nanophase Technologies Corporation, a Delaware corporation ("NTC"), having its principal offices at 1319 Marquette Drive, Romeoville, IL 60446.

Whereas NTC is in the business of manufacturing and selling nanoparticles and nanoparticle dispersions (collectively "nanomaterials") and wishes to expand the availability and marketing of nanomaterials for research purposes, and

Whereas ALFA AESAR is in the business of efficiently packaging, marketing, selling and distributing research materials, and

NTC desires to appoint and name ALFA AESAR, and ALFA AESAR desires to be appointed and named, exclusive distributor of the Products (as defined below) on a worldwide basis in research quantities for research purposes.

NOW, THEREFORE, in consideration of the mutual promises herein contained, the parties hereto, each intending to be legally bound hereby, agree as follows:

1. Definitions:

1.1 "Product" or "Products" mean those nanomaterials, coated nanomaterials and dispersions of nanomaterials listed in Schedule A, as amended from time to time by mutual written agreement signed by the parties.

1.2 "Product Price" means the price for Products listed in Schedule A sold by NTC to ALFA AESAR.

1.3 "Research Quantities" means, in the case of nanomaterials and coated nanomaterials, quantities purchased and distributed in individual orders of 54 kilograms or less, and, in the case of dispersions of nanomaterials, quantities purchased and distributed in individual orders of 60 kilograms or less.

1.4 "Commercial Quantities" means in the case of nanomaterials and coated nanomaterials, quantities purchased and distributed in individual orders greater than 54 kilograms, and, in the case of dispersions of nanomaterials, quantities purchased and distributed in individual orders greater than 60 kilograms.

1.5 "Custom Services" is any program or product offered by NTC other than the manufacture of Products as listed in Schedule A.

1.6 "Territory" is all areas in which ALFA AESAR markets, sells or distributes chemicals or other materials through its various sales channels, including but not limited to its present and future catalog distribution networks, Internet web sites, and other distribution channels.

1.7 “Trademark” means all common law, registered and unregistered state, federal and foreign trade names, trademarks, and service marks, including without limitation any logos and slogans.

1.8 “Net Sales” means the cost charged to a customer for goods and services less the costs for shipping, handling, taxes, duties and credits.

2. Appointment; Reservation of Rights; Referrals.

2.1 NTC hereby grants to ALFA AESAR, and its subsidiaries and affiliates, the exclusive right to market, sell and distribute Research Quantities of the Products within the Territory, ALFA AESAR hereby accepts such right and agrees to use its reasonable efforts to promote the marketing, sale and distribution of Research Quantities of the Products throughout the Territory in accordance with the terms and conditions of this Agreement using normal and standard practices. ALFA AESAR shall have the right, in its sole discretion, to sell Products outside of the Territory. ALFA AESAR agrees that, so long as NTC provides ALFA AESAR with Products for ALFA AESAR’S marketing, sale and distribution of Research Quantities of the Products within the Territory, ALFA AESAR shall purchase all its requirements of the Products (including nanomaterials with physical or chemical properties substantially the same as the Products) exclusively from NTC during the term of this Agreement, ALFA AESAR shall:

- i) buy the Products in quantities listed in Schedule A and repackage into the research sample quantities as it deems reasonable and appropriate for distribution and sale on a worldwide basis at such resale prices it shall determine from time to time, provided that any such repackaging shall comply with applicable safety laws and regulations;
- ii) attempt to keep reasonably sufficient stocks of the Products to meet customer orders and to store such stocks in such conditions as NTC may recommend from time to time to prevent deterioration or damage.

2.2 NTC reserves for itself the right (i) to sell Commercial Quantities of the Products in individual order quantities of single commercial packages or greater, subject to Section 6; and (ii) to provide samples of the Products in any quantity, free of charge, to its commercial partners or potential partners.

3. Pricing, Exclusions and Purchase Orders.

3.1 Subject to Section 2.2, NTC shall sell Products to ALFA AESAR, at the Product Price as amended from time to time pursuant to this Section 3.1. NTC agrees that the Product Prices, benefits and allowances offered to ALFA AESAR shall not be less favorable than those offered on Products provided to agents, distributors or marketed directly by NTC to any customers, other than the Product Prices existing as of the date of this Agreement with NTC’s commercial partners. Subject to the preceding sentence, NTC may increase the Product Price set forth in Schedule A at the end of the first full calendar year of this Agreement and from year to year thereafter, by providing ALFA AESAR with 90 days prior written notice of the changes to the

Product Prices. Any such increase in the Product Price shall not be effective for any unshipped portion of an order previously placed by ALFA AESAR prior to the end of the calendar year in which such notice is provided. NTC may decrease the Product Price at any time by providing ALFA AESAR with 30 days prior written notice.

3.2 NTC's prices do not include sales, use, excise, or similar taxes. The amount of any valid present or future sales, use, excise, or other similar tax that is attributable to ALFA AESAR shall be paid by ALFA AESAR; or in lieu thereof, ALFA AESAR shall provide NTC with a tax exemption certificate acceptable to the taxing authorities. Product Prices do not include any transportation or shipping expenses. NTC shall ship Products at ALFA AESAR's expense FOB/FCA (Incoterms 2000) NTC's facilities.

3.3 Subject to Section 2.2, NTC agrees to sell to ALFA AESAR such quantities of Products ordered by ALFA AESAR by written purchase orders. Purchase orders for Products shall be initiated by facsimile transmission, electronic mail or other written communication and shall be binding upon the parties upon acceptance by NTC. NTC shall be deemed to have accepted a purchase order unless NTC provides written notice of rejection to ALFA AESAR within three (3) days of NTC's receipt of such order, not including weekends and nationally recognized holidays.

4. Payment and Delivery.

4.1 Subject to Section 2.2, NTC shall use all reasonable commercial efforts to fill orders placed by ALFA AESAR with all reasonable promptness provided, however, that NTC shall have no obligation to furnish any Products hereunder which have been discontinued. In the event any order is not filled within thirty (30) days of receipt by NTC, ALFA AESAR has the right, but not the obligation, to seek alternative sourcing from a third-party without liability to NTC.

4.2 NTC shall ship Products FOB/FCA its facilities and will arrange delivery of the Products to ALFA AESAR using a nationally recognized carrier. Title to the Products, and the risk of loss or damage to the Products, each will pass to ALFA AESAR upon shipment from NTC's dock in compliance with United States D.O.T. requirements and all applicable laws and regulations.

4.3 NTC shall invoice ALFA AESAR for payment of Products delivered to ALFA AESAR on a Net 30 day basis. Excepting any amounts disputed in good faith, balances unpaid after such period will be subject to a finance charge of 1% per month or may be offset against any balances owed by NTC to ALFA AESAR. The parties agree to work in good faith to resolve any disputed invoice. In the event such efforts do not resolve the dispute within sixty (60) days, either party may initiate Arbitration proceedings pursuant to Section 16.

5. Returns; Discontinued Products.

5.1 Return Rights. Subject to the protocol described below, ALFA AESAR shall have the right to return at NTC's expense, and for full credit of ALFA AESAR's cost, any Products (i.) for which a legitimate and credible allegation is made that the use of such Products infringes on any patent, trademark, trade secret, copyright, right of privacy or publicity, or any other tangible or

intangible proprietary or intellectual property right; (b) that are not manufactured, packaged, or labeled in accordance with specifications or industry standards; (c) that are shipped in error or in non-conformance with ALFA AESAR's purchase order; or (d) that are damaged or defective. In the event that ALFA AESAR believes that it is entitled to return any Products delivered under this Agreement, the parties will adhere to the following protocol: (w) ALFA AESAR will contact NTC's Quality Director and then forward to the Quality Director, via a carrier selected by and at NTC's expense, a sample of the Product that ALFA AESAR believes is non-conforming; (x) upon receipt of the sample, NTC will test it and then notify ALFA AESAR of the test results; (y) where the test results confirm that the sample is non-conforming, NTC will provide ALFA AESAR with NTC's Return Authorization Number ("RAN"); and (z) any returned non-conforming Product must be in its original container, with original labels in act, and all paperwork concerning the returned Product must include NTC's RAN.

5.2 NTC may discontinue offering any Product for any reason by providing six (6) months advance written notice to ALFA AESAR, provided however, NTC shall continue supplying ALFA AESAR with such discontinued Product until the expiration of such six (6) month notice period. Notwithstanding the foregoing, NTC may discontinue any Product immediately upon written notice to ALFA AESAR if such discontinuation is due to any actual or alleged Product defect which may actually or allegedly cause damage to person, property rights or property, With respect to ALFA AESAR's existing inventory of discontinued Product, ALFA AESAR may, its sole discretion, return such Product at any time to NTC for full credit or refund.

6. ALFA AESAR Referrals.

6.1 The following shall be deemed referral sales for which NTC shall pay a commission in accordance with Section 6.2.

- a. ALFA AESAR shall refer to NTC the following sales requests either directly or by navigation on ALFA AESAR's Web site:
 - i) any sales for single Product orders in excess of Research Quantities; or
 - ii) any sales inquiries for Custom Services.

6.2 NTC shall pay ALFA AESAR a commission for all sales under Section 6.1 as follows. The terms of this Section 6.2 shall survive any expiration or termination of this Agreement.

- a) For all referrals under Section 6.1, except where NTC has evidence that it referral the customer (including its affiliates) to ALFA AESAR to purchase a prior sample of the Product in question, or where NTC has made sales to the customer (including its affiliates) referred to NTC by ALFA AESAR within a period of twelve (12) months before ALFA AESAR's referral under Section 6.1, NTC shall pay ALFA AESAR a commission at the rate of [***] on the Net Sales made to each such customer so referred to NTC under Section 6.1. NTC shall pay ALFA AESAR on a monthly basis for all such commissions for a period of three (3) years from the date of such referred customer's first order of Products or Custom Services from NTC.

*** CONFIDENTIAL TREATMENT REQUESTED—This confidential portion has been omitted from this document and filed separately with the Commission.

6.3 NTC shall maintain adequate records of its invoices and accounting records reflecting all such sales in accordance with standard accounting principles. Within twelve (12) months after the date this Agreement has been terminated by the parties, ALFA AESAR may engage an independent certified public accounting firm reasonably acceptable to NTC to audit the NTC invoices and accounting records pertaining to those customers identified as referrals under Section 6.1 at NTC's offices during normal business hours by providing thirty (30) days advance notice of such audit for the purpose of determining the accuracy of the commissions paid or payable to ALFA AESAR hereunder. NTC shall promptly pay ALFA AESAR for any deficiencies between the commission earned and the commission paid to ALFA AESAR.

7. Trademarks.

7.1 Each party hereby covenants and agrees that the Trademarks, copyrights and other proprietary rights of the other party are and shall remain the sole and exclusive property of that party and neither party shall hold itself out as having any ownership rights with respect to or, except as specifically granted hereunder, in any other rights therein. Any and all goodwill associated with any such rights shall inure directly and exclusively to the benefit of the owner thereof.

7.2 ALFA AESAR hereby grants to NTC a limited non-exclusive license to use the ALFA AESAR Trademarks in the form provided by ALFA AESAR during the Term of this Agreement in accordance with the terms set forth herein. Such license is granted solely in connection with NTC's rights and obligations under this Agreement and, in particular, for the purpose of licensing NTC to use the ALFA AESAR Trademark on the NTC web site as expressly contemplated herein for referral of customers of Research Quantities to ALFA AESAR and is a link/navigational button to the ALFA AESAR Site. All such uses will be subject to ALFA AESAR's approval as to the manner and/or form of use. NTC will not be allowed to use or reproduce the ALFA AESAR Trademark for any other purpose, including the general promotion of the NTC Site, without the prior written approval of ALFA AESAR.

7.3 NTC hereby grants ALFA AESAR a limited non-exclusive license to use, exhibit, excerpt, reproduce, publish, publicly perform and transmit via the Internet and otherwise use the NTC Trademarks in substantially the form as NTC may provide to ALFA AESAR from time to time during the Term of this Agreement in accordance with the terms set forth herein. Such license is granted solely in connection with ALFA AESAR's rights and obligations under this Agreement and, in particular, for the purpose of licensing ALFA AESAR to use the NTC Trademarks in ALFA AESAR's marketing, sales and distribution materials relative to the Products, including without limitation on the ALFA AESAR's Web site as a link/navigational button to the NTC Web site as posted by NTC. All such uses shall be subject to NTC's prior written approval as to manner and/or form of use.

7.4 Except as provided for in this Agreement, each party understands that the Web site links contemplated above to the other party's site may not be used in any manner to provide viewers access to the other party's Site via any caching, framing, layering or other techniques that cause

intermediate copying of the other party's Site (or elements thereof) or display of the other party's site or portions thereof in any manner unintended by the owner of the Site.

7.5 Upon termination of this Agreement, ALFA AESAR may continue to advertise and promote the Products, using the NTC's Trademarks and NTC content until ALFA AESAR's inventory depletion.

8. Training; Product Material.

8.1 NTC will provide training to ALFA AESAR's personnel on ALFA AESAR's premises as reasonably necessary, but no less than once annually, at mutually agreed upon times and dates to provide ALFA AESAR's sales and service personnel with adequate knowledge with respect to the Products.

8.2 NTC will provide to ALFA AESAR marketing and technical support for products as reasonably necessary and requested by ALFA AESAR, including providing Product materials which shall include, without limitation, Product specifications, images, and other textual, graphical and/or multimedia content regarding the Products for use in preparing advertising and promotional material. Subject to any limitations which NTC communicates to ALFA AESAR in writing, NTC hereby grants ALFA AESAR a license to use, exhibit, excerpt, reformat, modify, reproduce, publish, publicly perform and transmit via the Internet and otherwise use such NTC content for the purpose of marketing, advertising and promoting the Products, provided that ALFA AESAR obtains NTC's prior written approval for NTC content to be included in such literature.

9. Representations; Limited Warranty; Remedies.

9.1 NTC represents and warrants that i) the execution and delivery of this Agreement has been authorized by all requisite corporate action, ii) subject to Section 2.2, it is under no contractual or other obligation or restriction that is inconsistent with its execution or performance of this Agreement, iii) subject to Section 2.2, NTC will not enter into any agreement, either written or oral, that would conflict with NTC's responsibilities under this Agreement, iv) the Products do not infringe the intellectual property rights of any third party and NTC is not aware of any infringement claims relating to the Products, v) it will comply with all applicable laws, rules, regulations of any US or foreign laws, rules, or regulations in the manufacture and supply of Product, and vi) Products sold hereunder will be in compliance with the current Product description set forth in Schedule A, as amended from time to time by agreement of the parties. NTC shall further grant to ALFA AESAR the same warranty, as set forth in NTC's General Terms and Conditions of Sale for its products set forth in Schedule B. The foregoing warranties shall apply only to, and is intended for the benefit of, ALFA AESAR's customers.

9.2. Subject to the protocol in Section 5.1, ALFA AESAR may return to NTC any Product that is defective or that fails to comply with the purchase order provided by ALFA AESAR. NTC shall return to ALFA AESAR as promptly as possible, a working replacement or, in the event such replacement is not possible or at ALFA AESAR's election, it shall credit ALFA AESAR's account for the invoiced price and shipping charges of the defective Product. The

correction of such defective Product shall be at no cost to ALFA AESAR. The cost of shipping the replacement Product back to ALFA AESAR shall be paid by NTC. THE CORRECTION OF SUCH DEFECT BY REPAIR OR CREDITING ALFA AESAR'S ACCOUNT FOR THE COST OF THE PRODUCT IN THE MANNER SET FORTH ABOVE SHALL CONSTITUTE THE SOLE AND EXCLUSIVE REMEDY OF DISTRIBUTOR WITH RESPECT TO ANY WARRANTY GIVEN HEREIN RELATING TO ANY PRODUCT SOLD OR DELIVERED HEREUNDER.

9.3 ALFA AESAR represents and warrants that i) the execution and delivery of this Agreement has been authorized by all requisite corporate action, ii) it is under no contractual or other obligation or restriction that is inconsistent with its execution or performance of this Agreement, iii) ALFA AESAR will not enter into any agreement, either written or oral, that would conflict with ALFA AESAR's responsibilities under this Agreement, iv) it will comply with applicable safety laws and regulations for the repackaging and storage of Products, and v) excepting such warranties provided by NTC herein, it will make no warranties or other representations of any kind about the merchantability or fitness for any particular purpose of any Products, whether used alone or in connection with any other substance.

10. Indemnification.

10.1 NTC shall protect, defend, indemnify and hold ALFA AESAR, its directors, officers, employees, and agents harmless from any and all claims, actions, causes of action, liabilities, losses, damages, costs or expenses, including reasonable attorneys' fees, which directly or indirectly arise out of or relate to i) NTC's breach of warranties in Section 9.1, or ii) NTC's gross negligence or willful misconduct arising out of its manufacture, sale or transfer of the Products to ALFA AESAR, excepting indemnification for which ALFA AESAR is obligated under 10.3.

10.2 ALFA AESAR agrees to give NTC (i) prompt written notice of any claims made for which NTC might be liable under the foregoing indemnification, and (ii) the opportunity to defend, negotiate, and settle such claims. ALFA AESAR shall provide NTC with all information in its possession, all authority, and all assistance reasonably necessary to enable the indemnifying party to carry on the defense of such suit; provided, however, that each party shall have the right, at its own expense, to retain its own counsel to defend itself in such suit.

10.3 ALFA AESAR shall protect, defend, indemnify and hold NTC, its directors, officers, employees, and agents harmless from any and all claims, actions, causes of action, liabilities, losses, damages, costs or expenses, including reasonable attorneys' fees, which directly or indirectly arise out of or relate to i) ALFA AESAR's breach of warranties in Section 9.3, (iii) ALFA AESAR's gross negligence or willful misconduct arising out of its sale or transfer of the Products to ALFA AESAR's customers, excepting indemnification for which NTC is obligated under 10.1.

10.4 NTC agrees to give ALFA AESAR (i) prompt written notice of any claims made for which ALFA AESAR might be liable under the foregoing indemnification, and (ii) the opportunity to defend, negotiate and settle such claims. NTC shall provide ALFA AESAR with all information in its possession, all authority, and all assistance reasonably necessary to enable the indemnifying party to carry on the defense of such suit; provided, however, that each party shall have the right, at its own expense, to retain its own counsel to defend itself in such suit.

11. Relationship and Conduct of Business.

11.1 ALFA AESAR shall use its reasonable efforts and devote such time as may be reasonably necessary to sell and promote the sale of Products within the Territory.

11.2 ALFA AESAR agrees not to manufacture, buy, sell, distribute, deal in or be the agent for any products with the specifications of any of the Products, excluding any preexisting ALFA AESAR products.

12. No Joint Venture.

12.1 This Agreement does not in any way create the relationship of franchisor and franchisee, joint venture, partnership, employment or principal and agent between ALFA AESAR and NTC. Neither party, nor any person acting on behalf of a party, is or shall be considered an employee of the other party for any reason whatsoever, and does not and shall not have any rights to, or participate in, any pension or welfare plans, or any other benefits which now or hereafter maintains for or provides to its employees. Neither party, or any person acting on behalf of a party, is or shall be deemed to be the legal representative or agent of the other party for any purpose whatsoever, and is not authorized to transact business, incur obligations, express or implied, or otherwise act in any manner, in the name or on behalf of the other party, or to make any promise, warranty or representation with respect to Products (except as provided herein by NTC or as NTC otherwise expressly approves as to its Products) or any other matter in the name of or on behalf of the other party.

13. Term.

13.1 The initial term of this Agreement shall be for a period of five (5) years from the date first set forth above and shall thereafter automatically renew for additional two (2) year terms unless a party provides the other party with notice of non-renewal no less than 6 months prior to the expiration of the initial term or any renewal term unless earlier terminated as follows:

13.1.1 In the event of material breach, the non-breaching party shall give the breaching party sixty (60) days written notice of such breach. If substantial efforts to cure the breach are not taken within the sixty (60) day notice period, the non-breaching party may, at its sole discretion, terminate the agreement.

13.1.2 In the event a party becomes insolvent or if a party is declared bankrupt or makes an assignment for the benefit of creditors or in the event a receiver is appointed or any proceeding is demanded by, for or against a party under any provision of any bankruptcy law which is not withdrawn within sixty (60) days, the other party to this Agreement shall have the sole right to immediately terminate; or

13.1.3 By either party for any reason by providing six (6) months prior written notice expressly terminating this Agreement. Such notice may be by facsimile transmission or other written communication.

13.2 Termination of this Agreement shall not affect the rights or obligations of the parties accrued as of the date of termination. The provisions of Sections 6, 9, 10, 15 will survive termination of the Agreement.

13.3 Upon termination of this Agreement for any reason, ALFA AESAR may i) return its current inventory of Products for reimbursement by NTC or ii) keep its current inventory of Products and continue to sell such Products pursuant to the terms hereof until depletion of inventory. Upon termination of this Agreement, NTC shall promptly refund to ALFA AESAR all outstanding credits accrued on ALFA AESAR's account.

14. **Insurance.** Each party agrees to maintain and provide the other with evidence of insurance coverage for comprehensive general liability in an amount no less than \$2,000,000.00 U.S. dollars.

15. **Confidentiality.** The parties agree as follows; "Confidential Information" shall mean trade secret, technical, commercial, or financial information and all other nonpublic proprietary or confidential information. Each party receiving Confidential Information from the other party agrees to maintain in confidence and not divulge such Confidential Information, in whole or in part, to any third party, including subsidiaries or affiliates, licensees or clients anywhere, and not make use of such Confidential Information other than in relation to its performance under this Agreement. This obligation shall not apply to: (i) Confidential Information which at the time of disclosure by the disclosing party is in the public domain; or (ii) Confidential Information which, after disclosure by the disclosing party, becomes part of the public domain by publication or otherwise, other than by an unauthorized act or omission by the receiving party; (iii) Confidential Information which receiving party can show by contemporary written records was in its possession at the time of the disclosure and which was not acquired, directly or indirectly from disclosing party; or (iv) Confidential Information which receiving party rightfully receives from a third party and which was not acquired, directly or indirectly, from the disclosing party; (v) information which is developed independently without reference to the Confidential Information of the other party; or (v) Confidential Information which, if disclosed in written or other tangible form, is not marked "Confidential", or if disclosed orally is not summarized in a writing identifying the Confidential Information and submitted to the receiving party within thirty (30) days of the oral disclosure; or (vi) Confidential Information which is compelled by law to be disclosed by the receiving party, provided that the receiving party shall use its best efforts to give the disclosing party ten (10) days prior written notice of any such compelled disclosure. Each party agrees that it shall restrict its disclosures of the disclosing party's Confidential Information within its own organization to those persons having a need to know it for the purposes of performance under this Agreement and that such persons shall be advised of the obligations of confidentiality set forth herein and shall be obligated in like fashion. Upon request on termination or expiration of this Agreement, the receiving party shall promptly return to the disclosing party all Confidential Information and shall retain no copies except that one copy may be retained for purposes of determining such receiving party's compliance with the terms of this paragraph.

16. **Disputes and Arbitration.** The parties shall first seek to resolve any dispute by negotiations between their senior executives. When a party believes there is a dispute under this Agreement, that party will give the other party written notice of the dispute. Failing settlement of the dispute within 60 days of notice, either party may initiate binding arbitration proceeding; by

written notice to the other party, provided however, no dispute arising from any actual or threatened breach of any provisions in Sections 10 or 15 of this Agreement shall be subject to Arbitration. However, any other claims or disputes arising hereunder, including the construction or application of this Agreement, shall be settled by arbitration before a single arbitrator in accordance with the Rules for Commercial Arbitration of the American Arbitration Association (“AAA”) then in force. The place of arbitration shall be the location of the party hereto against whom the claim is made. If the parties cannot agree on an arbitrator within 10 days after demand by either of them, then the arbitrator shall be selected pursuant to the AAA’s Commercial Arbitration rules. The decision of the arbitrator shall be final and binding upon the parties and may be submitted to any court of competent jurisdiction for entry of a judgment thereon in accord with the Federal Arbitration Act or the Uniform Arbitration Act. The expense of the arbitration shall be shared equally by both parties. Each party shall bear its own “other” costs, i.e. fees and costs of its own lawyers and witnesses.

17. **Notices.** Any notice required or permitted to be given hereunder shall be deemed to have been duly given if delivered by hand, overnight courier delivery or mailed, certified and registered mail, with postage prepaid to the addresses first set forth above or at such other addresses as either party may designate in writing to the other, and if to ALFA AESAR with a copy to Johnson Matthey, 435 Devon Park, Suite 600. Wayne PA 19087, Attention: Vice President & General Counsel. This section is not intended to govern the day-to-day business communications necessary between the parties in performing their duties, in due course, under the terms of this Agreement.

18. **Severability.** The provisions of this agreement shall be severable, and if any provision of this Agreement is held to be invalid or unenforceable, it shall be construed to have the broadest interpretation which would render it valid and enforceable. Invalidity or unenforceability of one provision shall not affect any other provision of this Agreement.

19. **Entire Agreement.** This Agreement contains the entire agreement with respect to the subject matter hereof, and there are no other agreements or understandings, express or implied, written or oral, as to the subject matter hereof. This Agreement may not be amended or altered except by a written instrument signed by both parties, expressly stating that it is intended as an amendment hereto. No purchase order or other written order or acknowledgment issued by either party shall serve to vary the terms and conditions of this Agreement, or otherwise alter the obligations of the parties provided herein.

20. **Waiver.** The waiver by either party of any breach or failure to enforce any of the terms and conditions of this Agreement at any time shall not in any way affect, limit or waive either party’s rights thereafter to enforce and compel strict compliance with every term and condition of this Agreement.

21. **Counterparts.** This Agreement may be executed in one or more counterpart copies, each of which shall be deemed an original and all of which shall together be deemed to constitute one agreement.

22. **Governing Law.** This Agreement shall be governed by and interpreted under and in accordance with the laws of the State of Delaware without regard to principles of conflicts of laws.

23. **Public Announcements.** Upon execution and at any time during the term of this Agreement, the parties shall cooperate in preparing a joint press release announcing this Agreement and the availability of NTC Products in Research Quantities through ALFA AESAR, provided that no such joint press release shall be issued without both parties' prior approval.

24. **Headings.** The headings in this Agreement are for convenience only and do not in any way limit or amplify the terms or conditions of this Agreement.

IN WITNESS WHEREOF, the parties have duly executed this Agreement as of the date first set forth above.

NANOPHASE TECHNOLOGIES CORPORATION

JOHNSON MATTHEY CATALOG COMPANY, INC.

By: /s/ W. Ian Roberts
W. Ian Roberts
V.P. U.S. & International Sales

By: /s/ Barry Singelais
Barry Singelais
General Manager

Dated: October 14, 2005

Dated: October 24, 2005

Schedule A

List of Products to be offered by ALFA AESAR.

Quantities and NTC pricing to ALFA AESAR are included.

All prices are USD, FOB Romeoville IL, net 30.

Product Specification

Nanopowders:

Name	Product Code	Quantity	Price/kg
NanoTek® Aluminum Oxide	0115	***	\$[***]
NanoDur™ Aluminum Oxide	0119	***	\$[***]
NanoTek® Antimony Tin Oxide	2400	***	\$[***]
NanoArc® Bismuth Oxide	EXP 0250	***	\$[***]
NanoArc® Copper Oxide	EXP 0502	***	\$[***]
NanoTek® Indium Tin Oxide	0600	***	\$[***]
NanoArc® Cosmetic Iron Oxide	EXP 0807	***	\$[***]
NanoArc® Magnetic Iron Oxide	EXP 0806	***	\$[***]
NanoTek® Tin Oxide	1400	***	\$[***]
NanoGard® Zinc Oxide	1700	***	\$[***]
NanoTek® Zinc Oxide	1701	***	\$[***]
NanoTek® Zinc Oxide C1	1716	***	\$[***]
NanoTek® Zinc Oxide C2	EXP 1726	***	\$[***]

Nanoparticle dispersions:

Name	Product Code	Quantity	Price/kg
NanoDur™ X1121W, 50wt%	EXP 0187	***	\$[***]
NanoDur™ X1130PMA, 50wt%	EXP 0151	***	\$[***]
NanoShield® ZN-2000, 50wt%	EXP 1754	***	\$[***]
NanoShield® ZN-3010, 50wt%	EXP 1769	***	\$[***]
NanoTek® Z1102PMA, 50wt%	EXP 1707	***	\$[***]
NanoTek® AL-6081, 23wt%	EXP 0180	***	\$[***]
NanoTek® AL-6051, 23 wt%	EXP 0142	***	\$[***]
NanoTek® CE-6042, 18wt%	0311	***	\$[***]
NanoTek® CE-6080, 20wt%	0315	***	\$[***]
NanoTek® CE-6082, 18wt%	0314	***	\$[***]
NanoTek® CE-6086, 18wt%	EXP 0333	***	\$[***]

*** CONFIDENTIAL TREATMENT REQUESTED—This confidential portion has been omitted from this document and filed separately with the Commission.

Schedule B
NANOPHASE TECHNOLOGIES CORPORATION
STANDARD TERMS AND CONDITIONS

1. General Terms: As used in these Terms and Conditions, the terms (a) "Seller" shall mean Nanophase Technologies Corporation and (b) "Buyer" shall mean the party ordering shipment of Seller's products under the Order. These Terms and Conditions, including the provisions on the face hereof, constitute the exclusive contract between the parties for the products provided by Seller ("Order" or "Agreement"). Seller will be deemed to have accepted this Order when Seller returns an acknowledged copy of this Order, or, at Seller's option, when Seller begins substantial performance under this Order. Buyer accepts this Order by acknowledging a copy of this Order, by confirming this Order by its purchase order, purchase requisition or confirmation, or by accepting for shipment the products hereunder. Notwithstanding the manner in which Buyer accepts, Buyer's acceptance is limited exclusively to the acceptance of Seller's terms and conditions set forth in this Order only. Seller hereby rejects any proposal by Buyer for additional or different terms in connection with the products or services provided. Buyer may acknowledge this Order by purchase order, but any and all terms, conditions and provisions contained in said purchase order, acknowledgment form or other communications with respect to the transaction contemplated by this Order, or subsequent to the date hereof, are agreed to be superfluous and without any force and effect. This Order, which includes all terms and conditions hereof, is intended to be the exclusive and final statement of the terms and understandings relative to the subject matter hereof, merging herein and superseding all negotiations and prior written or oral agreements between the parties as to the subject matter of the purchase of the products hereunder. There are no promises, representations or understandings made in connection with this Order or contemporaneous with the execution hereof, except as set forth herein.

2. Prices and Taxes: All prices are set forth on the face of this Order. Seller is entitled to defer shipment of products in the event all amounts due it under this or any other Agreement are not paid in full. All payments shall be made to Seller at its offices. The failure to make prompt payment shall be a material breach of this Agreement. The price of the products specified in this Order does not include federal taxes, state or local sales taxes, value added taxes, use taxes or occupational taxes. Unless prohibited by law, Buyer is responsible for and shall pay all applicable sales, use, occupational, excise, value added or other similar taxes applicable to the manufacture, sale, price, shipment or use of the products provided by Seller.

3. Delivery and Risk of Loss: All sales are FOB Seller's premises in Burr Ridge or Romeoville, Illinois. Seller shall have no liability or responsibility for the late or non-shipment of products hereunder. Title to, risk of loss, destruction of or damage to the products shall be Seller's until delivery of the products to a carrier at the Seller's premises in Burr Ridge, Illinois. Thereafter, Buyer shall be fully responsible for and assume all ownership, risk of loss, destruction of or damage to the products. Loss or damage to the products after title and risk of loss have passed to Seller will not release or excuse Buyer from its obligations under this Order to Seller, including the obligation to make full payment.

4. Short Shipments/Damage Claims: Seller will endeavor to ship all Orders complete or as complete as reasonably possible. Seller will, however, ship incomplete orders upon written authorization by Buyer. In that event, Seller shall have no liability for short, incomplete or delayed orders. All damage claims shall be made within fourteen (14) days of delivery and shall be in writing.

5. Rejection and Revocation of Acceptance: Any rejection or revocation of acceptance by Buyer (a) must be made within thirty (30) days of the products being made available for shipment to Buyer, (b) any attempted rejection or revocation of acceptance made thereafter shall be null and void, and (c) any rejection or revocation of acceptance shall comply with Seller's return protocol.

6. Compliance with Governing Laws: Buyer warrants that its performance hereunder, including the use of the products hereunder, shall comply with all applicable state, federal and foreign law, regulations, environmental regulations, statutes or requirements, including, but not limited to, FDA approvals or any other approvals or certifications required by law

7. Assignment and Modification: The rights and obligations of the parties under this Agreement shall not be assignable unless consent to the assignment is in writing and signed by the parties. This Order shall not be modified, altered or amended in any respect except by a writing signed by the parties. Any variation, modification, or addition to the terms set forth in this Order shall be considered a material modification and shall not be considered part of this Agreement.

8. Limited Warranty and Disclaimer of All Other Warranties: EXCEPT FOR THE EXPRESS WARRANTY, IF ANY, THAT THE PRODUCTS COMPLY WITH THE SPECIFICATIONS IDENTIFIED IN WRITING ON THE FACE OF OR ACCOMPANYING THIS ORDER, SELLER MAKES NO EXPRESS OR IMPLIED WARRANTIES IN THIS ORDER OR OTHERWISE. TO THE FULLEST EXTENT PERMITTED BY LAW, SELLER DISCLAIMS ALL WARRANTIES, WRITTEN, EXPRESS OR IMPLIED, INCLUDING ALL WARRANTIES OF MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE. SELLER EXPRESSLY DISCLAIMS ANY AND ALL LIABILITY TO BUYER FOR ANY CONSEQUENTIAL DAMAGES, DAMAGES FOR LOSS OF USE, LOSS OF PROFITS, INCOME, OR REVENUE, LOSS OF TIME OR INCONVENIENCE, LOSS OR DAMAGE TO ASSOCIATED EQUIPMENT, COST OF SUBSTITUTED OR REPLACEMENT EQUIPMENT, LOSS TO FACILITIES, LOSS OF CAPITAL, LOSS OF SERVICES OR ANY OTHER INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGE ARISING OUT OF THIS ORDER OR THE OPERATION, FUNCTION OR CHARACTERISTICS OF THE PRODUCTS PURCHASED HEREUNDER OR OTHERWISE PROVIDED BY SELLER. IN THE EVENT THAT PRODUCTS DO NOT SATISFY SPECIFICATIONS, THEY WILL BE REPLACED, AT SELLER'S OPTION, WITH PRODUCTS THAT DO SATISFY THE SPECIFICATIONS AT SELLER'S SOLE EXPENSE. SAID REPLACEMENT IS THE SOLE AND EXCLUSIVE REMEDY OF BUYER.

9. Limitation of Liability: To the fullest extent permitted by law, the parties waive and relinquish any claims, demands, causes of action or recoveries for punitive damages, exemplary damages, or statutory damages. Seller shall not be liable for indirect, special, incidental or consequential damages arising under this Agreement or otherwise with respect to the sale of the products, including any lost revenues or profits, consequential and/or incidental damages, business interruption or damage to business reputation, regardless of the theory upon which any claim may be based, including any statutory causes of action or claims. In no event will Seller's entire liability to Buyer, including any liability in the event the exclusive remedy set forth in this Agreement fails of its essential purpose, exceed the purchase price actually paid by Buyer for the products hereunder, or any defective portion thereof, whichever is the lesser amount.

10. Force Majeure: Seller shall have no liability or obligation to Buyer of any kind, including but not limited to any obligation to ship products, arising from any delay or failure to perform all or any part of this Order as a result of causes, conduct or occurrences beyond Seller's reasonable control, including, but not limited to, commercial impracticability, fire, flood, act of war, civil disorder or disobedience, act of public enemies, terrorist acts, terrorism generally affecting commerce, problems associated with transportation (including car or truck shortages), acts or failure to act of any state, federal or foreign governmental or regulatory authorities, labor disputes or strikes.

11. Relationship: The relationship between Seller and Buyer shall be that of independent contractors. Seller, its agents and employees, shall under no circumstances be deemed the employees, distributors, franchisees, agents or representatives of Buyer.

12. Default: The failure of Buyer to perform any obligations hereunder, including without limitation, the payment of the purchase price for products and all other amounts due hereunder, the failure to materially perform other agreements between Buyer and Seller, or Buyer's bankruptcy or insolvency, shall constitute a default under this Agreement and shall, in addition to any other remedies, afford Seller all of the remedies of a secured party under the Uniform Commercial Code of the State of Illinois. In the event of default, Seller may, in addition to pursuing any of the remedies provided by law, equity or as set forth in this Agreement, refuse to make available for shipment products under this or any other agreement relating to the products, and may also cancel this Order and any pending orders without liability to Buyer. It is expressly understood that Seller's remedies are cumulative to the fullest extent permitted by law.

13. Attorneys' Fees: In the event it becomes necessary for Seller to enforce the terms and conditions of this Order by litigation or otherwise, or to defend itself in any Controversy (as defined herein), litigation, claim, demand or cause of action arising out of or as a result of this Order or the products or services provided hereunder, and if Seller is the substantially prevailing party in said Controversy, litigation, claim, demand or cause of action, then Seller shall be entitled to recover, in addition to any other relief granted or damages assessed, its reasonable attorneys' fees, expert witness fees, costs, and all expenses of litigation.

14. Waiver: No claim or right arising out of a breach of this Order can be discharged in whole or in part by a waiver or renunciation of the claim or right unless the waiver or renunciation is supported by consideration and is in writing signed by the aggrieved party.

15. Severability: If any term, covenant, warranty or condition of this Order, or the application thereof to any person or circumstance shall, to any extent, be held or deemed invalid or unenforceable, the remainder of this Order or the application of such term, covenant or provision, to persons or circumstances other than those to which it is held invalid or unenforceable, shall not be affected thereby, and each remaining term, covenant or provision of this Order shall be deemed valid and enforced to the fullest extent permitted by law.

16. Indemnification: To the fullest extent permitted by law, Buyer shall defend, indemnify and hold Seller harmless from any and all claims, demands, subrogation claims by Buyer's insurers, causes of action, liabilities, fines, regulatory actions, seizures of product, losses, costs, expenses (including, but not limited to attorneys' fees, expert witness expenses and litigation expenses) (hereinafter "Claim"), arising from or in connection with any Claim asserted against Seller for any damage, injury, death, loss, property damage, environmental liability, or any other Claim, whether in tort, contract, or otherwise, relating to this Order, the business relationship between the parties or the goods provided hereunder. Notwithstanding the foregoing, Buyer has no indemnity obligation to Seller with respect to any Claims that result solely from the negligence of Seller and this indemnity provision does not purport to indemnify Seller solely for its own negligence, but rather for the negligence or conduct, whether sole or concurrent, of Buyer. Buyer, for itself and its insurers, expressly waives any and all limitations or liability caps, if any, on Buyer's contribution liability to Seller, and any and all statutory or common law lien rights or Claims against Seller arising from any applicable workers compensation or disability acts, which Buyer might or could assert against Seller or Seller's insurers in the event of the personal injury or death of Buyer's employees, representatives or servants. Without limiting the foregoing, Buyer, for itself and its insurers, also waives any liens, claims or other rights it may have as a result of being subrogated to any rights of its employees, representatives or servants.

17. Insurance: Buyer shall obtain comprehensive general liability coverage, including contractual liability coverage, naming Seller as an additional named insured, in amounts sufficient to fully protect Seller under this Agreement from loss, damage or casualty caused by Buyer or incurred by Seller under this Agreement.

18. Governing Law and Forum Selection: This agreement shall be governed by and subject to the internal laws (exclusive of the conflicts of law provisions) and decisions of the courts of the State of Illinois. The parties consent to the exclusive jurisdiction of the federal court in Chicago, Illinois or the state court located in DuPage County, Illinois with respect to all litigation, claims, causes of action, demands, Controversies (as defined

herein) or disputes among the parties. The only exception to this forum selection provision is a claim by Seller seeking the replevin of the products in the event the courts specified in this provision will not or cannot assert jurisdiction. All counterclaims, if any, in connection with the replevin claim, shall be subject to this forum selection provision.