



## THE ART & CREATIVE MATERIALS INSTITUTE, INC.

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Web Address: [www.acminet.org](http://www.acminet.org)

### Product Testing Information

#### **Required Testing**

Prior to the Duke Toxicology Program issuing an initial or continuing toxicologist's approval for certification by The Art and Creative Materials Institute (ACMI), certain testing may be required. ACMI requires lead testing of products sold for use by children. A product can be approved for certification once you have completed the initial testing requirements. If requests are made for additional testing after a customer has submitted a product, these tests will not delay the certification unless they are requested because of new information about this specific product or unless the result is judged critical to the evaluation. If a product is approved with testing still outstanding, the required testing should be completed expeditiously, but no later than 6 months from approval, as the continued approval of the product requires that such testing be completed. Information on where to obtain copies of these test methods is available from ACMI on request. A list of some of the laboratories that can perform these tests is attached and is also available on ACMI's website, [www.acminet.org](http://www.acminet.org). Please keep in mind that there may be other labs that can perform these tests. If you would like to use another lab of your choosing, please contact Dr. Stopford first to make sure it is a lab he will accept. When no test method is indicated, you should obtain a technical specification from the manufacturer of the ingredient.

#### **Tests that may be required as part of the evaluation of your product and the corresponding test method, if applicable, are as follows:**

1. EN71.3 (1994), ASTM D5517 or their equivalent (for metal solubility testing) (Labs: b, e, k)
2. Synthetic intestinal juice method for extracting aromatic amines; ETAD No 212; or DIN 55 610 (Labs: e, k)
3. Test for eye or skin irritation, either in vivo {Draize} (labs: c, j, m) or in vitro {Eytex, Bovine Corneal Opacity Test or Matek EpiOcular Test, Matek EpiCutaneous Test} (Labs: d, i)
4. DCMA method for PCBs (polychlorinated biphenyls) in Pigments, or its equivalent (Labs: e, k)
5. pH of your product (Labs: b, e, g)
6. Closed or open cup test for flammability (Setaflash) (Lab: b)
7. % Respirable silica (respirable fraction as measured by Andreason Pipette or Sedigraph (fraction with an aerodynamic diameter of 4.25 microns or less) x crystalline silica in the 4.25 micron fraction) (Labs: h, l)
8. % asbestos fibers with an aspect ratio of 1:5 or greater and length >5 microns as determined by PLM or PLM/X-ray diffraction (Labs: g, l)
9. Viscosity in Saybolt unit seconds at 100 degrees Fahrenheit by Gardner Bubble Viscosity tubes, or the equivalent. (Lab: b)

(continued)



**LOOK FOR THESE SEALS.....**

## Page 2 – Product Testing Information

### Tests that may be required as part of the evaluation of your product: *(continued)*

- A. Solid combustibility as measured by the FHSA test for flammable solids (hold candle flame on tip for 5 seconds. A combustible marker is one that burns for 60 sec. and drips flaming plastic) (Labs: b, h or see ACMI for test method)
- B. Free formaldehyde as measured by head space analysis with trapping in chromatropic acid and analysis by colorimetry or gas or ion chromatography (Labs: b, e, k)
- C. Monomeric ethylene oxide (GC headspace analysis method of Tegewa, or its equivalent) (Labs: b, e, k)
- D. Ink laydown testing in terms of micrograms of ink lain down per cm of line (Labs: a, h)
- E. Respirable dust production assessment (Labs: h)
- F. Solubility in synthetic lung fluid (cytosol) (Lab: e)
- G. Hexavalent chromium (EPA digestion method D3060A and EPA hexavalent chromium assay procedure 7196A or its equivalent) (Labs: b, e, k)
- H. We will need to see the manufacturer's specification for levels of this chemical in this ingredient.
- I. Respirable fraction as measured by Andreason Pipette or Sedigraph (fraction with an aerodynamic diameter of 4.25 microns or less). (Labs: h, l)
- J. Sensitization testing by Bueler test in guinea pigs or murine local lymph node assay (Labs: c, j, m)
- K. Test for autocombustibility using ASTM method D6810 (Labs: b, h)
- L. Particle size measurement by dynamic light scattering, laser scattering in aqueous hexametaphosphate solution, centrifugal photo-sedimentation or by an equivalent methodology (Labs: l, o)
- M. Testing for soluble metal using Canada's HPA Solubility Test (Lab: e)
- N. Aerosol flammability testing (Lab: h)
- O. Acid/alkali reserve per Canada's CCCR-2001 (Lab: e)
- P. Phthalate esters in plastics (Lab: b)
- Q. Aerosol spray pattern testing (Lab: h)
- R. Marker abuse testing in conformance with 16CFR1500.53 (Lab: n)
- S. Metal testing in plastics using ASTM D3335 for digestion or microwave digestion followed by EPA 3050/EPA 7420 or by XRF (Lab: e)
- T. Synthetic Intestinal Juice Method for Extraction method (Stopford, et al, 2003) with gravimetric analysis. (Lab: e)
- U. Total metal testing by XRF or by AA/ICP after nitric acid (or its equivalent) digestion (Lab: e)

## *Testing Laboratories for ACMI*

The following labs can provide the testing services noted on the “Tests that may be required” listing or can provide equipment for conducting your own tests:

- a. Anja Engineering Corp.  
11591 Etiwanda Ave.  
Fontana, CA 92337  
Telephone: 800-241-8552  
Fax: 909-360-1129  
(*source for ink write out equipment*)
  
- b. Case Consulting Laboratories  
622 Rt. 10  
Whippany, NJ 07891  
Telephone: 973-428-9666  
Fax: 973-887-4419  
E-mail: [c.willis@case-labs.com](mailto:c.willis@case-labs.com)  
Web site: <http://www.case-labs.com>
  
- c. Celsis Laboratory Group  
600 W. Chicago Ave., Suite 625  
Chicago, IL 60654-2822  
Telephone: 312-476-1200  
Fax: 312-476-1201  
E-mail: [info@celsislabs.com](mailto:info@celsislabs.com)  
Web site: <http://www.celsis.com>
  
- d. InVitro International  
17751 Sky Park East, Suite G  
Irvine, CA 92614  
Telephone: 800-246-8487  
Fax: 949-851-4985  
E-mail: [invitro@invitrointl.com](mailto:invitro@invitrointl.com)  
Web site: <http://www.invitrointl.com>
  
- e. Kirby Health Center Toxicology Laboratory  
71 North Franklin Street  
Wilkes-Barre, PA 18701  
Telephone: 570-822-4278  
Fax: 570-825-9926  
E-mail: [dcappellini@epix.net](mailto:dcappellini@epix.net)  
Web site: <http://www.kirbyhealthcenter.org/lab.html>

## Page 4 – Product Testing Information

### Testing Labs List: *(continued)*

- g. JMS Environmental Associates, Ltd.  
816 Burr Oak Dr.  
Westmont, IL 60559  
Telephone: 630-655-8500  
Fax: 630-655-8724  
E-mail: [jmsenviro@jmsenviro.com](mailto:jmsenviro@jmsenviro.com)
  
- h. Stopford Associates  
3300 New Sharon Church Road  
Hillsborough, NC 27278  
Telephone: 919-732-7442  
Fax: 919-286-5647  
E-mail: [wstopford@earthlink.net](mailto:wstopford@earthlink.net)
  
- i. Thomas L. Stephens & Associates  
3310 Keller Springs Rd., Suite 130  
Carrollton, TX 75006  
Telephone: 972-392-1529  
Fax: 972-392-2347  
E-mail: [tstephens@stephens-associates.com](mailto:tstephens@stephens-associates.com)  
Web site: <http://www.stephens-associates.com>
  
- j. Tox Monitor/BSR  
33 West Chicago Ave.  
Oak Park, IL 60302  
Telephone: 708-345-6970  
Fax: 708-383-0591  
E-mail: [ToxBSR@aol.com](mailto:ToxBSR@aol.com)  
Web site: <http://toxmonitorbsr.com/>
  
- k. SGS US Testing Company, Inc.  
201 Route 17 North  
Rutherford, NJ 07070  
Telephone: 201-508-3000  
Fax: 201-508-3193  
E-mail: Can send e-mail inquiries directly through their web site  
Web site: <http://www.us.sgs.com>
  
- l. RJ Lee Group Inc.  
350 Hochberg Road  
Monroeville, PA 15146  
Fax: 724-733-1799  
E-mail: [info@rjlg.com](mailto:info@rjlg.com)  
Web site: <http://www.rjlg.com>

## Page 5 – Product Testing Information

### Testing Labs List: *(continued)*

- m. Pacific BioLabs  
551 Linus Pauling Dr.  
Hercules, CA 94547  
Telephone: 510-964-9000  
Fax: 510-964-0551  
E-mail: [joygermanelo@pacificbiolabs.com](mailto:joygermanelo@pacificbiolabs.com)  
Web site: <http://www.pacificbiolabs.com>
  
- n. Bureau Veritas Consumer Products Services, Inc.  
100 Northpointe Parkway  
Buffalo, NY 14228-1884  
Telephone: 716-505-3300  
Fax: 716-505-3301  
E-mail: [annu.singh@us.bureauveritas.com](mailto:annu.singh@us.bureauveritas.com). Can also send e-mail inquiries directly through their web site.  
Web site: <http://www.us.bureauveritas.com>
  
- o. Delta Analytical Instruments, Inc.  
1061 Main Street  
North Huntingdon, PA 15642  
Telephone: 724-864-9850  
Fax: 724-864-9851  
E-mail: [kmuoio@deltalab.com](mailto:kmuoio@deltalab.com)  
Web site: <http://www.deltalab.com>