

For Immediate Release Wednesday, November 28, 2007

# Asbestos Disease Awareness Organization Releases Findings that Reveal Evidence of Asbestos in Everyday Products

Products Containing Asbestos Include Children's Toys, Appliances, Hardware & Household Goods and Home & Garden Items

**Washington, DC...November 28, 2007 ---** The Asbestos Disease Awareness Organization (ADAO), an organization dedicated to serving as the voice of asbestos victims, today unveiled research showing evidence of asbestos in some everyday household products, including Planet Toys "CSI Fingerprint Examination Kit", DAP "33" window glazing, DAP "Crack Shot" spackling paste, Gardner Leak Stopper roof patch, and Scotch High Performance Duct Tape.

At a press conference held at the National Press Club in Washington, DC, ADAO reported findings based on a research study led by Scientific Analytical Institute, Inc., that examined more than 250 suspect products acquired at national commercial retailers within the last 18 months. Samples were drawn from diverse areas, including foods, drugs, toiletries, cosmetics, hardware, cleaning products, and children's toys. Confirmation testing was conducted by two independent laboratories, MVA Scientific Consultants, Inc., and Bureau Veritas North America, Inc. Samples were analyzed for asbestos following the analytical procedures described in the U.S. Environmental Protection Agency "Test Method EPA/600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials". The samples were examined by Polarized Light Microscopy (PLM) and by Transmission Electron Microscopy (TEM), at magnifications from 100 to 50,000 times.

"I can definitively say that asbestos has been found and confirmed present in many different products," stated Sean Fitzgerald, President Geologist and Senior Microscopist of Scientific Analytical Institute, Inc. "The initial question asked in this study was: 'Do products currently for sale and available to the public in America contain asbestos?' That question can now assuredly be answered, 'Yes.' In light of the substantial findings of this limited product survey, I believe that a more comprehensive program of product testing for asbestos in common household products is of utmost import."

"More than 100 years after asbestos exposure was first linked to disease in the modern world, asbestos continues to be the source of one of the largest manmade public health crises in history," stated Linda Reinstein, Co-Founder & Executive Director of the Asbestos Disease Awareness Organization. "But exposure continues. We believe that an immediate worldwide ban on all asbestos-containing products is fully justified, absolutely necessary, and long overdue, and consumer education must increase. One life lost to an asbestos-caused disease is tragic; hundreds of thousands of lives lost is unconscionable."

"Although their significance has often successfully been obscured in the public debate through political and financial issues raised by those who profit from asbestos, the fact of the matter is that asbestos fibers are agents of death," according to Michael R. Harbut, MD, MPH, FCCP, Co-Director, Karmanos Cancer Institute's National Center for Vermiculite and Asbestos-Related Cancers. "There is no such thing as a safe level of exposure to asbestos fibers. Each and every fiber represents an increased risk of unnecessary death and unnecessary suffering."

The occurrence of asbestos-related diseases, including mesothelioma, lung cancer and asbestosis, continues to increase. Studies estimate that 10,000 victims in the United States and 100,000 victims worldwide will die of an asbestos related disease annually over the next decade.

###

#### **About Asbestos Disease Awareness Organization**

Asbestos Disease Awareness Organization (ADAO) was founded by asbestos victims and their families in 2004. ADAO seeks to give asbestos victims a united voice to help ensure that their rights are fairly represented and protected, and raise public awareness about the dangers of asbestos exposure and the often deadly asbestos related diseases. ADAO is funded through voluntary contributions and staffed by volunteers. For more information visit www.asbestosdiseaseawareness.org.

#### **Media Contacts:**

Asbestos Disease Awareness Organization (ADAO):

Doug Larkin

**Director of Communications** 

Phone: (703) 250-1245 Cell: (202) 391-1546

Barbara Ann Karmanos Cancer Institute, Detroit, MI:

Patricia A. Ellis

Phone: (313) 576-8629 Cell: (313) 410-3417 Linda Remington Phone: (313) 576-8614

Cell: (313) 820-1414



# Analysis for Asbestos Content in Commonly Available Products

Using Light and Electron Microscopy and Matrix Reduction Techniques

By: Sean Fitzgerald

15 November, 2007

President, Geologist and Senior Microscopist Scientific Analytical Institute, Inc.

#### **ABSTRACT**

This report summarizes results of analyses of products purchased by Scientific Analytical Institute, Inc. at national commercial retailers within the last 18 months (May 2006 to November 2007). The samples were obtained at the request of the Asbestos Disease Awareness Organization (ADAO) in order to determine if such products available and sold on the open market contain measurable amounts of asbestos. To date, asbestos has been repeatably found and confirmed in many products, and found as sporadic contaminants in several others. This report shall focus on specific examples of products that have been proven to contain asbestos by this study. Additional findings are to be published at a later date, as further testing continues.

#### PROJECT DESCRIPTION

In this first test period, over 400 suspect products were acquired from diverse areas, including foods, drugs, toiletries, cosmetics, hardware, cleaning products, and children's toys. Focus of the project was held to a broad survey across many different areas. Since the field of suspect products was so large, only a few qualitative presence-or-absence screening samples were tested from each sub-category. Where possible, when asbestos was found in a product, more sensitive duplicate tests were run, and similar or parallel products screened. Over 250 individual tests have been run, in which asbestos fibers were found in 18 products to date, and fully confirmed through multiple retests and confirmations by three different laboratories (see "quality control" section below) in the products described in this report.

Products were purchased from major retail chains, including Wal-Mart, CVS, Macy's, Toys-R-Us, Bed, Bath, & Beyond, Home Depot, etcetera. Country of origin or manufacture was immaterial to the selection process, as this project has a mission focus of determining what products in reach of the American public contain asbestos, rather than where they originated. In the initial results that follow, each product description shall include where and when it was purchased, and where the label indicated that it was made.

#### METHODS AND EQUIPMENT

The samples were analyzed for asbestos following the analytical procedures described in the U.S. Environmental Protection Agency "Test Method EPA/600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials". The samples were examined by Polarized Light Microscopy (PLM) and by Transmission Electron Microscopy (TEM). The samples were prepared for TEM in accordance with the matrix reduction sections of EPA/600/R-93/116. Final analyses were conducted on a JEOL 2000FX Transmission Electron Microscope (TEM) equipped with an Energy-Dispersive X-ray Analyzer detector (EDXA) and Selected Area Electron Diffraction (SAED) at magnifications up to 50,000X.

#### **PREPARATIONS**

In order to remove organics, representative quantities of the suspect products were placed in a muffle furnace for 6 to 18 hours (depending on matrix) at a temperature between 400 and 500 degrees Celsius. Next the sample was dissolved in hydrochloric acid then water to remove any acid and/or water-soluble materials (e.g., carbonates, gypsum, or salts) from the sample. The organic and acid soluble-reduced sample was then filtered through a 0.2  $\mu m$  mixed cellulose ester (MCE) or 0.2  $\mu m$  polycarbonate filters. This filter was dried, collapsed with acetone, and coated with carbon in a vacuum evaporator for TEM analysis. The fibers and solids collected on the carbon coated filter were transferred onto a copper grid.

#### **ANALYSIS**

The actual analysis on the TEM was CVES quantification of asbestos on the residue filter preparation, back-calculated based on weight lost during gravimetric reductions in prep to the original weight of test sample for computation of relative concentration of asbestos in the sample (modified Chatfield or NY NOB bulk analysis).

#### **QUALITY CONTROL**

In order to assure accuracy and repeatability of results, duplicate and replicate samples were conducted on the original product tested, and on a repeat of the same product. Samples that were found to have same results in-house were then sent to two other laboratories for confirmation testing. MVA Scientific Consultants Inc.(MVA) tested duplicate products in unopened, "unadulterated" condition, as the third laboratory, Bureau Veritas North America, Inc.(BV), was sent aliquots or splits of samples without any identifying marks, other than code labels such as "Sample 1" or "Exhibit A". Both second and third laboratory results confirmed the asbestos-positive results found by the primary laboratory, Scientific Analytical Institute, Inc.(SAI).

#### **EXAMPLE PRODUCT RESULTS**

As examples of different types of samples and their base asbestos presence confirmation, the following tables illustrate the confirmed presence in five example products, further described as total tests conducted and type. A group photograph of these example products can be found in exhibit #6.

	Dog 4 od	A	Confirmed by:				
Example #	Product Description	Chrysotile	Tremolite	Actinolite	Antho- phyllite	BV	MVA
1	CSI fingerprint investigation kit - powders		X			х	X
2	DAP 33 - window glazing	Х	X		Х	Х	Х
3	DAP crack shot- spackling paste	X	X		X	Х	X
4	Gardner - leak stopper roof patch	X				x	X
5	Scotch Duct Tape-High Performance	X	X	Х		Х	X

*Table 1: asbestos presence confirmation in 5 example products.* 

#### **Matrix Summary**

This matrix summarizes the tests conducted on the specific products described.

							ave. type		ave.		ave. type
Product	p/a	quant	tests	pos	neg	type1	1	type2	type 2	type3	3
CSI: white											
powder	3	5	8	6	2	TR (6/8)	4.52%				
DAP "33"								AN		CH	
glazing	2	4	6	6	0	TR (6/6)	0.79%	(2/6)	0.48%	(3/6)	0.099%
								AN		CH	
DAP crack shot	2	4	6	5	1	TR (5/6)	0.38%	(1/6)	0.31%	(2/6)	0.066%
Gardner	1	5	6	6	0	CH (6/6)	14.8%				
Scotch Duct								CH			
Tape HP	4	6	12	11	1	TR (8/12)	0.037%	(4/12)	0.007%		

Table2: asbestos presence confirmation in 5 example products; full matrix of analyses.

- 1. Numbers in parentheses express ratios of how many samples of the total samples tested of that product contained that asbestos type.
- 2. Average percentages ("average type") were calculated from quantified positive results only.
- 3. Asbestos types found are Chrysotile (CH), Tremolite (TR), Actinolite (AC), and Anthophyllite (AN).
- 4. "P/A" indicates presence/ absence tests, while "quant" indicates quantitative Chatfield-reduced tests in accordance with the agreed SOP method.
- 5. The "pos" column is the total number of tests for that product in which asbestos was identified.
- 6. The "neg" column is the total number of tests for that product in which asbestos was not identified.

#### SPECIFIC PRODUCT RESULTS

The following paragraphs detail the test results of asbestos testing of specific products for the Asbestos Disease Awareness Organization (ADAO) by the primary contract laboratory, Scientific Analytical Institute, Inc. (SAI), and subcontracted quality control (QC) laboratories Bureau Veritas N.A., Inc. (BV), and MVA Scientific Consultants, Inc. (MVA).

Photographic images of the products and representative asbestos fibers from each comprise attached Exhibits #1 through #6, as well as corresponding Energy-Dispersive X-Ray Spectra (EDXA) confirming fiber chemistries of the asbestos types identified.

#### Example #1: CSI Fingerprint Investigation Kit

General description (see Exhibit #1): This popular toy based on the television show "CSI: Crime Scene Investigation" is a complete forensics investigation kit aimed at youth interested in this growing field. The kit includes fingerprinting powders, inks, pads, brushes, templates, and activity descriptions, and is available in toy stores. Asbestos was found in the fingerprint powders.

Manufactured or made in: China
Where purchased: Toys-R-Us

When purchased: June 07 and August 07

Type(s) of asbestos observed: **Tremolite** 

Relative abundance in product: **5%** 

Estimated average fiber size(s):  $5\mu m \times 0.15\mu m$ 

Size (mass) of product tested: 1 jar dusting powder (1.8 grams)

Mass of asbestos in product: 100 milligrams per jar

In June 2007, SAI purchased a Planet Toys CSI Fingerprint Investigation Kit, made in China, from Toys-R-Us. The kit was found to contain 5 suspect materials: white fingerprinting powder, black fingerprinting powder, day-glow green fingerprinting powder, black ink, and invisible ink. The initial P/A tests found tremolite in the white powder, chrysotile in the glow powder, and no asbestos in the other 3 suspects. It is noteworthy that a significant concentration of respirable-size silica particles was observed in the black powder as well.

A second kit was purchased, and the powders re-tested in September. Tremolite was again found in the white powder, but chrysotile was not confirmed in the glow powder. A follow-up retest of the glow powder prepared as a water suspension was adequate to find chrysotile in the glow powder from the  $1^{\rm st}$  kit, but a supplemental full Chatfield preparation found no asbestos observed in the final residue. The glow powder was then set aside, as the white powder tremolite proved more repeatable. Quantitative analysis of the white powder from the  $2^{\rm nd}$  kit was calculated to contain 5.63% tremolite.

QC tests were sent to confirm results in September 2007. BV was sent a split of the white powder from the  $2^{nd}$  kit, with no markings, other than a reference number. MVA was sent a  $3^{rd}$  unopened CSI kit simultaneously. TEM Chatfield preparation and P/A analysis were requested of both laboratories. BV found

tremolite and reported a concentration of 0.69%. MVA reported tremolite-actinolite as present, and included TEM photomicrographs of fibers in their report dated 25, September, 2007. MVA also tested the other suspects (including the glow powder), and found no other asbestos in their kit. The white powder was reported as a confirmed product for the SAI report dated 27, September, 2007.

In October, a second set of new duplicate products were hand-carried to the two QC laboratories. Procedures were reviewed, and notes from that meeting were used to hone and re-craft the standard procedures. A revision to the internal SOP of SAI was published to the QC labs as the agreed procedure to test the new duplicate products delivered.

Both of the new kits delivered were tested and found to not contain tremolite in the white powder, by BV and MVA. Lot numbers are being checked for correlation, as only product variability can account for the dichotomous results.

A quantitative analysis of the 1<sup>st</sup> kit was conducted by SAI at the same time that the QC labs were testing their new duplicates. That test found tremolite asbestos in the white powder at a concentration of 7.24%.

#### Example #2: DAP 33 - window glazing

General description (see Exhibit #2): Available in most home repair centers, this small tub of window caulk is handy for the "do-it-yourselfer" as a popular name-brand putty recommended for sealing windows and other applications were a flexible seal is desired. Two types of asbestos were identified throughout.

Manufactured or made in: **USA** 

Where purchased: Home Depot and Lowes

When purchased: August 07

Type(s) of asbestos observed: **Tremolite, Anthophyllite and Chrysotile** 

Relative abundance in product: **0.8% Tremolite** 

0.5% Anthophyllite 0.1% Chrysotile

Estimated average fiber size(s): 5.5μm x 0.10μm Tremolite

3.5µm x 0.05µm Chrysotile 6.8µm x 0.07µm Anthophyllite

Size (mass) of product tested: **8 fl. oz.** 

Mass of asbestos in product: **6.2 grams (in small tub)** 

DAP brand products were first tested at SAI September 2007. A small tub of DAP "33" window glaze was purchased at Lowe's. Initial P/A testing found both chrysotile and tremolite asbestos. The same sample bucket was subsequently tested and asbestos quantified at 0.13% chrysotile and 2.60% tremolite for a total of 2.73%.

These results were found at SAI after the QC samples had gone to the other labs, so no "blind" test was sent to BV, and MVA was sent with a photo and product information to a nearby Home Depot to purchase their own duplicate.

By P/A analysis of their product reduction, MVA also found tremolite asbestos, but did not confirm the presence of chrysotile in that duplicated product.

In October, a second set of new duplicate products were hand-carried to the two QC laboratories. Procedures were reviewed, and notes from that meeting were used to hone and re-craft the standard procedures. A revision to the internal SOP of SAI was published to the QC labs as the agreed procedure to test the new duplicate products delivered.

In this testing round, all three labs found tremolite, and two labs identified anthophyllite. SAI was able to find chrysotile as well. BV reported 0.41% anthophyllite and 0.25% tremolite, for a total concentration of 0.66% asbestos. MVA reported 0.03% tremolite in their tub, but did not see any chrysotile in the analysis of DAP "33" tub that they tested. SAI re-tested the original tub for this QC round, and calculated concentrations of 0.54% anthophyllite, 0.27% tremolite, and 0.068% chrysotile for a total of 0.911% asbestos.

#### Example #3: DAP crack shot- spackling paste

General description (see Exhibit #3): Available in most home repair centers, this small tub of caulk is handy for the "do-it-yourselfer" as a popular name-brand spackling putty recommended for joints, cracks, and other applications in drywall or similar material. We tested the small 8 oz. tub, but larger tubs are available, including gallon size. Two types of asbestos were identified throughout this product.

Manufactured or made in: **USA** 

Where purchased: Home Depot and Lowes

When purchased: August 07

Type(s) of asbestos observed: **Tremolite, Anthophyllite and Chrysotile** 

Relative abundance in product: **0.4% Tremolite** 

0.3% Anthophyllite 0.07% Chrysotile

Estimated average fiber size(s): 7.0μm x 0.12μm Anthophyllite

4.5μm x 0.20μm Tremolite 0.7μm x 0.05μm Chrysotile

Size (mass) of product tested: **8 fl. oz. (small tub)** 

Mass of asbestos in product: **3.4 grams** 

DAP brand products were first tested at SAI September 2007. A small tub of DAP "Crack Shot" spackle was purchased at Lowe's. Initial P/A testing found both chrysotile and tremolite asbestos. The same sample bucket was subsequently tested and asbestos quantified at 0.066% chrysotile and 0.98% tremolite for a total of 1.050%.

These results were found at SAI after the QC samples had gone to the other labs, so no "blind" test was sent to BV, and MVA was sent with a photo and product information to a nearby Home Depot to purchase their own duplicate. By P/A analysis of their product reduction, MVA also found tremolite asbestos.

In October, a second set of new duplicate products were hand-carried to the two QC laboratories. Procedures were reviewed, and notes from that meeting were used to hone and re-craft the standard procedures. A revision to the internal SOP of SAI was published to the QC labs as the agreed procedure to test the new duplicate products delivered. In this testing round, BV reported no asbestos observed in their duplicate product. MVA reported tremolite in their tub, but did not see any chrysotile in the analysis. SAI re-tested the original tub for this QC round, and calculated concentrations of 0.31% anthophyllite, 0.16% tremolite, but did not find chrysotile in this analysis, for a total of 0.47% asbestos.

#### Example #4: Gardner - leak stopper roof patch

General description (see Exhibit #4): Available in most home repair centers and discount department stores, Gardner brand roof tars and sealants are sold to the general public. Abundant asbestos was found in the gallon-sized buckets tested. Parallel product shopping in some stores revealed exact look-alike cans that were found to not contain asbestos, with "asbestos free" written in small print where the asbestos containing variant reads "Chrysotile mineral fiber". Gardner products remain listed by the NIH as known asbestos-containing materials on the open market.

Manufactured or made in: **USA** 

Where purchased: Lowes, Home Depot, and Wal-Mart When purchased: August 06 and August 07; October 07

Type(s) of asbestos observed: **Chrysotile** 

Relative abundance in product: 15%

Estimated average fiber size(s): 5μm x 0.05μm Size (mass) of product tested: 1 gallon (US) Mass of asbestos in product: 1.2 pounds

Gardner Leak Stopper purchased at Wal-Mart in June, 2007 was determined by SAI P/A analysis to contain chrysotile asbestos. Subsequent quantitative analysis in September calculated a concentration of 29.5%. Also in September, a QC test samples were sent to confirm results. BV was sent a split of the tar with no markings, other than a reference number. BV confirmed the chrysotile presence, and calculated a concentration of 11% asbestos.

As shipping of a full gallon can seemed unnecessary, MVA was sent product photos and information to purchase a duplicate at a nearby Home Depot. By P/A analysis of their product reduction, MVA did not confirm the presence of chrysotile in that duplicated product. A close read of the fine print on the two cans soon resolved the dichotomous results. The can tested by SAI and split to BV was labeled "Chrysotile Mineral Fiber", while the can picked up by MVA had a small label: "Asbestos Free Product". A follow-up survey by SAI of shelves in Home Depot, Lowes, and Wal-Mart found both products available in many stores, with no clearly visible difference other than the fine print on the back of the can. This was confirmed in Wal-Mart as recently as October, 2007.

In October, a second set of new duplicate products were hand-carried to the two QC laboratories. Procedures were reviewed, and notes from that meeting were used to hone and re-craft the standard procedures. A revision to the internal SOP of SAI was published to the QC labs as the agreed procedure to test the new duplicate products delivered. In this testing round, all three labs found chrysotile in this product. BV reported 11%, MVA found 6.8% (in a gallon purchased that month), and SAI calculated 15.6% chrysotile asbestos.

### Example #5: Scotch Duct Tape: High Performance

General description (see Exhibit #5): Sold in many different stores, this "Contractor" grade, "High Performance" tape differs little in appearance from "ordinary" duct tape, and is the ubiquitous grey. Asbestos was repeatably found in all reductions of fabric and adhesive.

Manufactured or made in:
Where purchased:
Wal-Mart
August 07

Type(s) of asbestos observed: **Tremolite and Chrysotile** 

Relative abundance in product: **0.04% Tremolite** 

0.007% Chrysotile

Estimated average fiber size(s): 1.8μm x 0.10μm Tremolite

0.4μm x 0.04μm Chrysotile

Size (mass) of product tested: 1 Roll (12oz.)
Mass of asbestos in product: 188 milligrams

In June 2007 SAI tested Scotch Duct Tape (high performance/ contractor grade), manufactured in Canada and purchased in Wal-Mart, and found tremolite asbestos. Two more tests in August confirmed presence of tremolite in this product, as a repeat duplicate sample was acquired, again from Wal-Mart, in which both tremolite and chrysotile asbestos was identified. Supplemental quantitative analysis in September reported 0.050% tremolite asbestos.

QC tests were sent to confirm results in September 2007. BV was a split from the 1<sup>st</sup> roll tested with no markings, other than a reference number. MVA was not sent a duplicate product sample. TEM Chatfield preparation and P/A analysis were requested. BV found chrysotile asbestos presence in their analysis.

In October, a second set of new duplicate products were hand-carried to the two QC laboratories. Procedures were reviewed, and notes from that meeting were used to hone and re-craft the standard procedures. A revision to the internal SOP of SAI was published to the QC labs as the agreed procedure to test the new duplicate products delivered. In this round of testing, MVA confirmed the presence of both tremolite and chrysotile. A simultaneous analysis by SAI found 0.013% tremolite only in a new duplicate tape roll.

#### **Other Products**

Our testing also found asbestos in many other products that need more confirmation tests before specifics can be publicly released, including:

- Toy play clay from China
- Toy play clay from Thailand
- Pre-packaged potting soil from the USA
- Hair rollers from China
- Kitchen appliances from China
- Kerosene lantern wicks from China
- Cosmetics from France
- Baking flour
- Bicycle tire patch, and
- Powdered household cleansers.

A full report of our findings is being submitted to the US EPA and US Consumer Product Safety Commission for further evaluation.

## **Interpretation of Results**

Given the data presented above, I can definitively say asbestos has been found and confirmed present in many different products. Since the initial question asked in this study was: "Do products currently for sale and available to the common public in America contain asbestos?", I am confident that can now assuredly be answered with "Yes". Keep in mind that these samples represent a very small fraction of all the potentially asbestos-containing subjects still left untested. There are, however, many more questions this information raises. Although many such questions fall outside the purview and scope of this study, I should like to offer my interpretations and reasoning regarding the specific variances observed in concentrations and reportability determinations of asbestos observed.

You may have noticed in the results reported variances in the concentrations and types of asbestos observed. I believe these differences can be accounted for by two primary factors:

- 1. Source material homogeneity
- 2. Product formulation consistency.

#### 1. Source material homogeneity

In some cases variability can be easily attributed to poor distribution or homogeneity of the material tested, which I think is definitely responsible for a good portion of the variance observed in these examples. It is reasonable to assume for example, that white fingerprinting powder from some CSI kits is asbestos free. Conversely, I think it is also reasonable to expect some kits in the population at large to contain higher concentrations of asbestos than the highest we have seen in these studies.

#### 2. Product formulation consistency

Similar to what we would see from poor source material homogeneity, the manufacturers of these products may change or alternate source materials used in a given formula, or a contamination issue may come and go in the manufacturing process. This type of source variance I believe is responsible for the sporadic occurrences observed in products like the baking flour, or the bicycle inner tube patch material (see 'other products list above). The fact that asbestos is occasionally observed in such products still remains, in my opinion, of concern.

It is for these reasons that I believe that we must admit some uncertainty of results as a given, and we should rely on repeatable qualitative differentiation of what should be considered an asbestos-containing product or what should not, i.e., if the majority of tests of a given product find asbestos by TEM analysis of the resultant residue of gravimetric reduction in standardized analysis, then that product indeed contains asbestos.

#### **CONCLUSION**

In light of the substantial findings of this limited product survey, I believe it is imperative that a more comprehensive program of product testing for asbestos in common household products, as well as testing of less ubiquitous applications, is of utmost import to the long-term health of our society. I would also like to note that significant areas of suspect materials and potential risk were outside the scope of this phase of our investigation, including such historically problematic areas as friction products (brakes), pharmaceuticals, industrial applications, laboratory supplies, or building materials.

Having looked through the microscope to see so many unexpected results in such a short time, I can only hope that this will resonate with the American people as a clarion call to action. The need is evident to raise public awareness on the asbestos issue. We as a nation should formally ban asbestos in our country, as well as create, revise, and update the regulations for testing, treatment, and use of these harmful materials. We should also promptly address similar yet currently unregulated bio-persistent fibers, such as variants of asbestos minerals (as seen in Libby, Montana), or currently un-addressed asbestiform minerals such as taconite or piccrolite. It is clearly time to take positive steps toward a cleaner future for our children, for our neighbors, and for ourselves.

Sean Fitzgerald 11/15/07



# Linda Reinstein ADAO Executive Director, Co-founder and Mesothelioma Widow November 28<sup>th</sup>, 2007

My name is Linda Reinstein, and I am Executive Director of the Asbestos Disease Awareness Organization. I am also a mesothelioma widow and single mother. I am neither a lobbyist nor an attorney, only a volunteer.



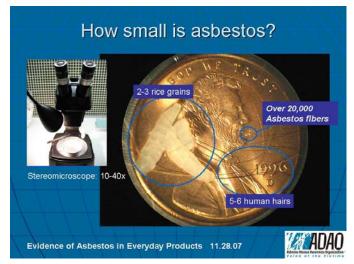
Last year, my husband, Alan Reinstein, lost his three-year battle with mesothelioma, a deadly asbestos cancer. When Alan died, my daughter and I joined hundreds of thousands of Americans who are mourning the loss of their loved ones; losses which could have been prevented.

Mr. Sean Fitzgerald, Dr. Michael Harbut and Mr. Jordan Zevon join me here, to show you that asbestos is not yesterday's story, but today's story and tomorrow's story.

We are going to report on five specific products, purchased off the shelves of American retail stores. Keep in mind, these five consumer

products are just an example of product contamination. It's unlikely that any consumer would suspect the presence of asbestos in these products. ADAO has established an unprecedented, independent peer-reviewed product testing program.

I would like to recognize Paul Zygielbaum, mesothelioma patient and ADAO Product Testing Project Manager, and his wife Michelle, who have been strong volunteer ADAO advocates and asbestos awareness activists for three years. The findings that we will present today are a result of Paul's desire to discover the truth behind persistent rumors about the continuing presence of asbestos in products on American store shelves.



This slide shows the nearly invisible, deadly asbestos fibers as compared to grains of rice and human hair. On the penny, just under President Lincoln's nose, are more than 20,000 asbestos fibers. These virtually indestructible fibers can be 700 times smaller than human hair and can remain suspended in air, even in a closed room, for hours or days.

Inhaling or swallowing asbestos fibers can cause cancers or respiratory diseases. Each year, some 10,000 Americans or more die of asbestos-related disease. More than 100 years after asbestos exposure was first linked to disease in the modern

world, asbestos continues to be the source of one of the largest manmade public health crises in history. But exposure continues.

Thirty-one years ago, the International Agency for Research on Cancer declared asbestos a human carcinogen. The Environmental Protection Agency, the World Health Organization and the International Labor Organization agree: There is no safe level of asbestos exposure. The simple truth is: asbestos kills. But exposure continues.



Just walk the streets of Libby, Montana, or New York City or talk to the US Capitol Tunnel workers here today; they know about the irreversible effects of asbestos poisoning. Asbestos diseases are incurable; some are debilitating, some are fatal, but all are avoidable. Preventing asbestos exposure is the only way to eliminate the diseases. But exposure continues.

The demographics of victims are shifting. In the 1990s, the average mesothelioma patient was a male, aged 70, whose disease resulted from occupational exposure. But now the average age of patients contacting ADAO is about 50, and women

represent a growing proportion of victims. Recently, a 16-year-old girl was diagnosed with mesothelioma. Asbestos is an equal opportunity killer.

To prolong their lives, many asbestos-related cancer patients opt for radical treatments, such as having a diseased lung or diaphragm surgically removed. Multiple surgeries, chemotherapy and radiation treatments are common. Those dying from mesothelioma can incur hospital bills in excess of 1 million dollars.

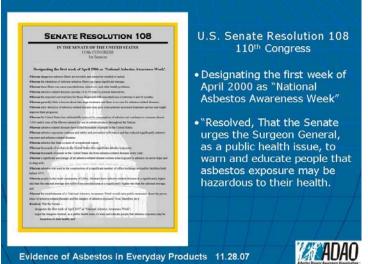
1525 Aviation Boulevard, Suite 318 · Redondo Beach · California · 90278 · 310.437.3886

"United for Asbestos Disease Awareness, Education, Advocacy, Prevention, Support and a Cure."

www.AsbestosDiseaseAwareness.org

After we present the results of our testing, Dr. Harbut will briefly address the medical facts. We cannot thoroughly cover the topics of epidemiology, prevention, detection, or treatment at this meeting, and refer you to the ADAO online asbestos video library at www.adao.us.

We're here to educate consumers about the risks they face. We're here to call for enforcement of existing laws and regulations. And we're here to urge Congress once again to prohibit asbestos content and contamination in products made or sold in America.



Our work with Congress has been productive, but exposure continues.. In 2007, the Senate unanimously passed the 3<sup>rd</sup> annual Asbestos Awareness Day Resolution, proposed by ADAO, and these indisputable deadly facts.were entered into the Congressional Record. Althhough, urged by the Senate, the Surgeon General has yet to issue an asbestos warning in response to the Senate's request.

We believe that an immediate worldwide ban on all asbestos-containing products is fully justified, absolutely necessary, and long overdue. And yes, safer, affordable alternatives exist.

This morning, to further our efforts toward consumer education and the enforcement of existing laws and regulations, ADAO mailed the Environmental Protection Agency and the Consumer Product Safety Commission a complete report of the findings which you are about to see.



One life lost to an asbestos-caused disease is tragic; hundreds of thousands of lives lost is unconscionable. But exposure continues.

We will now present the scientific results of ADAO's initial product testing program. Let me introduce Mr. Sean Fitzgerald, President of Scientific Analytical Laboratories, Inc., the independent testing laboratory that carried out the test program. Mr. Fitzgerald.

# NATIONAL PRESS CLUB: ADAO Product Testing Results Page 1 of 3

Sean Fitzgerald

November 28, 2007

#### - (Slide-mini-bio) -- (Slide-cover) -

Good Morning ladies and gentlemen, my name is Sean Fitzgerald. I am President, Geologist and Senior Microscopist for Scientific Analytical Institute, Incorporated (SAI). I am here to present the results of testing we have performed for the Asbestos Disease Awareness Organization. This ongoing project has focused on determining if common household products available and sold on the open market contain measurable amounts of asbestos.

I can now report that asbestos has been repeatably found and confirmed in numerous products and found as sporadic contaminants in several others. I shall detail five specific examples of products that have been proven to contain asbestos by this study. Additional findings will be published later, pending further testing. We intend to report all findings to the Environmental Protection Agency and the Consumer Product Safety Commission for further evaluation.

Samples were drawn from diverse product categories, including foods, drugs, toiletries, cosmetics, hardware, cleaning products, and children's toys. Products were purchased from national and regional retail chains. Country of origin or manufacture was not considered in the selection process.

Since the field of suspect products was so large, only a few qualitative presenceor-absence screening samples were tested from each category. When asbestos was found in a product, more sensitive duplicate tests were run where possible, and similar or parallel products were screened.

#### - (Slide- PLM/TEM) -

The samples were analyzed for asbestos following the analytical procedures described in the U.S. Environmental Protection Agency "Test Method EPA/600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials." The samples were examined by Polarized Light Microscopy (PLM) and by Transmission Electron Microscopy (TEM), at magnifications from 100 to 50,000 times.

#### - (Slide- number of tests) -

SAI has performed nearly 350 tests on products, including repeated tests, and has confirmed asbestos content in 18 different products, 8 of which have already been confirmed by one or both of the other participating laboratories. To assure accuracy and repeatability of results, duplicate tests were conducted on the original product tested, and on a repeats of the same product.

#### - (Slide- confirm tests) -

Samples were sent to two other laboratories for confirmation testing. MVA Scientific Consultants tested duplicate products in unopened, "unadulterated" condition. Bureau Veritas North America was sent splits of samples without identifying marks, other than code labels such as "Sample 1" or "Exhibit A."

## NATIONAL PRESS CLUB: ADAO Product Testing Results Page 2 of 3

Both laboratories confirmed that asbestos was present in the products presented here today.

- (Time elapsed: 3 min) -

#### - (Slide-group shot "poster") -

The five example products before you are CSI fingerprint investigation kit, DAP "33" window glazing, DAP "Crack Shot" spackling paste, Gardner "Leak Stopper" roof patch, and Scotch Duct Tape.

#### - (Slide-FP kit) -

Our first example is the Planet Toys CSI Fingerprint Investigation Kit. This popular toy is based on a popular television show. SAI purchased a Planet Toys CSI Kit, made in China, from a national retailer. The kit contained 5 suspect materials: white fingerprinting powder, black fingerprinting powder, day-glow green fingerprinting powder, black ink, and invisible ink. Asbestos was found in the white fingerprinting powder.

#### - (Slide-DAP 33) -

Example #2 is DAP "33" glazing compound. Manufactured in the USA and available in most home repair centers frequented by "do-it-yourselfers," This material is recommended for sealing windows and other applications. Eight-ounce buckets from national retailers were tested, but one-gallon buckets are available. Asbestos was identified throughout the material.

#### - (Slide-DAP crack) -

Example #3 is DAP "Crack Shot" spackling paste. This caulk or spackling putty is recommended for joints, cracks, and other applications in drywall or similar material, and is available in many home repair centers. Crack Shot is made in the USA. Eight-ounce buckets from national retailers were tested, but one-gallon buckets are available. Asbestos was identified throughout the material.

#### - (Slide-Gardner) -

Our fourth example is Gardner "Leak Stopper" roof patch or tar. Manufactured in the USA, this product is available in many discount department and hardware stores for sale to the general public. Abundant asbestos was found in the gallon-sized buckets purchased from national retailers.

Note that Gardner Leak Stopper has two nearly indistinguishable varieties available: one labeled as containing "Chrysotile Mineral Fiber" in fine print, and the other with a small label reading "Asbestos Free Product." A follow-up survey of national retail store shelves by SAI found both products available in many stores, with no clearly visible difference other than the fine print on the back of the can. This was confirmed as recently as October, 2007.

## NATIONAL PRESS CLUB: ADAO Product Testing Results Page 3 of 3

- (Slide-Duct tape) -

The final example today is Scotch brand Duct Tape. Sold in many different stores, this "Contractor Grade," "High Performance" tape differs little in appearance from "ordinary" duct tape and is the ubiquitous grey color. Our product samples were found and purchased from a national retailer and were labeled as products of Canada. Asbestos was repeatably found in all reductions of fabric and adhesive.

#### - (Slide-group- no text) -

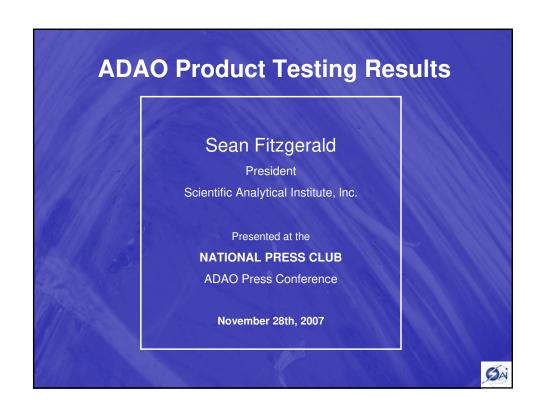
Given the data presented above, I can definitively say that asbestos has been found and confirmed present in many different products. The initial question asked in this study was: "Do products currently for sale and available to the common public in America contain asbestos?" That question can now assuredly be answered, "Yes." Keep in mind that these samples represent a very small fraction of all the potentially asbestos-containing products still left untested.

In light of the substantial findings of this limited product survey, I believe that a more comprehensive program of product testing for asbestos in common household products is of utmost import. I would also like to note that other significant types of suspect materials and potential risks were outside the scope of this phase of our investigation, including friction products (such as car brakes), pharmaceuticals, industrial applications, laboratory supplies, or building materials.

- (Slide-asbestos 'fade on' cover) -

Thank you.

- (Time elapsed: 5 min 44 sec) -





## **Asbestos Presence Confirmations**

Example #	Product Description	SAI	BV	MVA		
1	CSI Fingerprint Examination Kit	<b>√</b>	<b>V</b>	✓		
2	DAP 33 window glazing	<b>√</b>	<b>√</b>	<b>√</b>		
3	DAP Crack Shot spackling paste	√	<b>√</b>	<b>√</b>		
4	Gardner Leak Stopper roof patch	√	<b>√</b>	<b>√</b>		
5	Scotch Duct Tape - High Performance	<b>√</b>	<b>√</b>	<b>√</b>		

BV: Bureau Veritas, North America MVA: MVA Scientific Consultants, Inc. SAI: Scientific Analytical Institute, Inc.



## **Asbestos Testing**

Using the most sensitive, state-of-the-art method available



### Polarized Light Microscope (PLM)

- Required for EPA/600/R-93/116 for bulk asbestos analysis in building materials
- 400X magnification
- Determines mineral type through optical properties

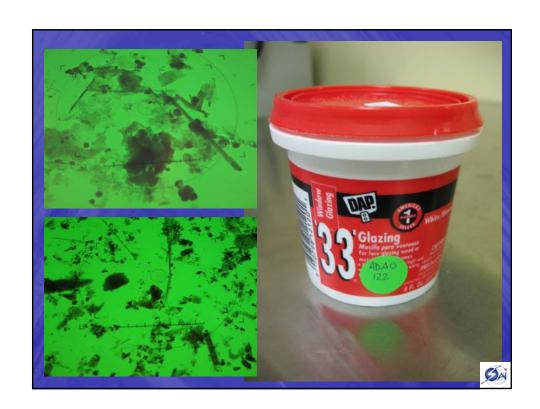


#### <u>Transmission Electron Microscope (TEM)</u>

- Optional for EPA/600/R-93/116 for bulk asbestos analysis
- 25,000X magnification to detect smaller particles
- Determines chemistry and atomic structure through Energy Dispersive Spectral analysis and Selected Area Electron Diffraction

















#### **MEDIA CONTACTS:**

Patricia A. Ellis, 313-576-8629 (office) or 313-410-3417 (cell) Linda Remington, 313-576-8614 (office) or 313-820-1414 (cell)

November 28, 2007

Talking Points for Michael R. Harbut, M.D., M.P.H., F.C.C.P.

Co-Director. National Center for Vermiculite and Asbestos-Related Cancers

**DETROIT, MI** - Each year, thousands of people die from lung cancer and pulmonary fibrosis. Many of those persons have never smoked cigarettes, have never worked in a chemical factory or have never knowingly exposed themselves to any agent which can cause an early death.

We now know that some of these patients have become sick or have died because of bystander, or unknowing exposures to asbestos fibers.

Although their significance has often successfully been obscured in the public debate through political and financial issues raised by those who profit from asbestos, the fact of the matter is that asbestos fibers are agents of death.

#### Asbestos-caused diseases



## \_\_\_\_

 Scarring of the lungs caused by asbestos exposure.

Asbestosis

- Cases begin to "show up" about 15 years after exposure, with most cases evident after 30 years.
- The process of scarring continues after exposure ends.



Asbestos fibers cause asbestosis, a scarring of the lung which reduces the ability of the air to cross over the lung into the blood stream. People die from asbestosis. The scarring caused by the asbestos fibers usually does not become clinically apparent until 15 to 30 years after the first exposure.

#### Asbestos-caused diseases



#### Pleural plaques

- This is a thickening on the covering of the lungs.
   93% of the time, it's on both lungs, 7% on only one.
- If the thickening gets very thick, it can impair breathing. 1% of the time, there is severe pain.
   Sometimes it never goes away and requires narcotics.



teural plaques Gross appearance at alopsy of asbeatos-associated pleural aques overlying the lateral theracic all. Am J Respir Crit Care Hed vol 170 592, 2004; www.atsjournals.org

Asbestos fibers cause pleural plaquing. This is a thickening on the covering of the lung. If the plaque becomes thick enough, it can impair the ability to breathe. Pleural plaques can also cause intractable pain. In some patients, this pain eventually goes away, but in others, is persistent for a lifetime and often requires narcotics.

#### Asbestos-caused diseases



#### Lung cancer

- If you are exposed to asbestos, you have 5x the risk of getting lung cancer. If you've also been exposed to tobacco smoke, the risk jumps to over 50x increased risk.
- Even fairly brief exposures result in an increased lung cancer likelihood.

Asbestos fibers cause lung cancer. Persons with asbestos exposure have about five times the risk of getting lung cancer than the general population without exposure. If there is a history of smoking in addition to the inhalation of asbestos fibers, the risk rises to more than 50 times that of the rest of the population. This cancer usually doesn't show up for about 25 to 30 years after exposure.

Asbestos-caused diseases



Asbestos exposure causes twice the risk of getting colon cancer, the second leading cause of cancer death among men and women in the United States.

#### Colon cancer

 Asbestos exposure causes about twice the risk of getting colon cancers

#### Other cancers

 There is data which is consistent with asbestos causation of a number of other cancers

#### Asbestos-caused diseases



#### Mesothelioma

- An extremely aggressive, painful cancer of the covering of the lung, abdomen or heart.
- It is ugly. It is painful. Death most often occurs within 6 months.
- There are 4,000 8,000 cases per year in the US. It "presents" most often 25 – 40 years after an exposure to asbestos. In the US, asbestos is its only known cause.

Asbestos exposure causes mesothelioma. In 4,000 to 8,000 Americans each year, this cancer which grows in the covering of the lung, abdomen or heart causes a rapid and painful death. Asbestos fibers are the only known cause of this disease in the United States. It clinically presents 25 to 40 years after the asbestos exposure, which in some cases can be very low.

There is no such thing as a safe level of exposure to asbestos fibers. Each and every fiber represents an increased risk of unnecessary death and unnecessary suffering.

Asbestos-caused diseases





Ratignant mesotheliuma Transverse section of an extrapteural pneumonectomy surgical specimen with the entire right lung, parietal and visceral pleurae, portions of pericardium and the majority of the right hemidaphragam. Note the thick rind of tumor along the pleural surface enessing the lung, interiobar fissures, which provides the provides of the provides of the provides of the pleural surface enessing the lung, interiobar fissures, Asbestosis and asbestos cancers are human diseases and family tragedies; they are not legal, political or financial inconveniences.

- more -

In response to the United States Environmental Protection Agency's (EPA) identification of major sources of public asbestos exposure in the United States, and to address the need for early diagnosis and aggressive treatment of asbestos-related diseases, the Barbara Ann Karmanos Cancer Institute and the Center for Occupational and Environmental Medicine (COEM), affiliated with Wayne State University, have joined forces to establish The National Center for Vermiculite and Asbestos-Related Cancers. The National Center for Vermiculite and Asbestos-Related Cancers is co-directed by John C. Ruckdeschel, M.D., president and chief executive officer for Karmanos Cancer Institute and Michael R. Harbut, M.D., M.P.H., F.C.C.P., chief of the Center for Occupational and Environmental Medicine. For more information, please contact (800) KARMANOS.

The Barbara Ann Karmanos Cancer Institute is one of 39 National Cancer Institute-designated comprehensive cancer centers in the United States. Caring for more than 6,000 new patients annually on a budget of \$216 million, conducting more than 700 cancer-specific scientific investigation programs and clinical trials, the Karmanos Cancer Institute is among the nation's best cancer centers. Through the commitment of 1,000 staff, including nearly 300 faculty members, and supported by thousands of volunteer and financial donors, the Institute strives to prevent, detect and eradicate all forms of cancer. John C. Ruckdeschel, M.D., is the Institute's president and chief executive officer.

###