

For Immediate Release

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Study Finds Glass Abrasive Samples Contain Beryllium

JANUARY 12, 2018 – Today the Abrasive Blasting Manufacturers Alliance (ABMA) released the results of an independent study assessing the beryllium content of 9 samples of crushed glass abrasives from major manufacturers and distributors in the industry. The results showed that all of the glass samples contained beryllium, in addition to arsenic, cadmium and lead. These findings should lay to rest the false claims and advertising that some manufacturers of glass abrasives have deployed to mislead the public about the supposed benefits of their products. These have included claims made in ads and websites that glass abrasives present “no hazard,” that they are the “safe alternative” for blasting, and contain “no toxic metals such as Beryllium, as found in slags.” The study shows that such claims are utterly and completely false.

For the study, 9 samples of crushed glass abrasives from different sources and manufacturers were submitted to two independent laboratories for analysis of beryllium content. The results showed that every glass sample contained beryllium in concentrations that ranged between 0.270 and 0.757 mg/kg.

“The ABMA has always said that the OSHA beryllium rule puts in place overly restrictive exposure limits that will negatively and unnecessarily impact the entire abrasive blasting industry, not just blasting with slag abrasives, but all abrasives,” said ABMA’s Mark Mummert. “The new study confirms this to be true, despite the misleading information coming from some non-slag manufacturers in the industry. With this study, beryllium is now confirmed to be present in glass abrasives and, therefore, it is clear that glass abrasives are subject to the OSHA rule,” continued Mummert.

About the ABMA

The ABMA is a coalition of abrasive blasting manufacturers advocating for a regulatory framework based on sound scientific and public health data. They work with partners throughout the industry to champion sensible regulations that ensure worker health and environmental protection while preserving abrasive blasters’ freedom to operate.

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Chemical Analysis of Glass Abrasive Blast Material

Chemical analysis of several glass abrasive products of the major manufacturers and distributors in the industry demonstrate that glass abrasive blasting materials contain many of the same metals associated with slag abrasives, including beryllium. Additionally, all products contained measureable amounts of arsenic, cadmium, and lead.

Study Methods

Exponent, an engineering and scientific consulting firm, facilitated the collection and analysis of abrasive glass products from various producers and locations. Samples were packaged, sealed, and sent to two independent accredited laboratories for analysis under standard Chain of Custody procedures. Samples were prepared and analyzed at each laboratory in accordance with EPA Method 3052M-HF//6020A [Inductively coupled plasma-mass spectrometry (ICP-MS)] for beryllium, arsenic, cadmium, and lead.

Results

Table 1 summarizes the results and shows that similar results were reported by the two independent laboratories. Beryllium was detected in all samples ranging from 0.270 to 0.757 milligrams per kilogram (mg/kg).

Table 1: Summary of Glass Abrasive Blast Materials Sample Results (in mg/kg)

Prod Name/ Manufacturer	Source Location	Lab ¹	Beryllium	Arsenic	Cadmium	Lead
Strategic Materials Glass Abrasive	Fairfield, CA	ALS	0.677	17.0	0.619	362
Strategic Materials Glass Abrasive	Fairfield, CA	KPrime	0.757	17.3	0.600	314
Strategic Materials Tru Abrasives® Medium Glass	Cleveland, OH	ALS	0.477	26.6	0.768	466
Strategic Materials Tru Abrasives® Medium Glass	Cleveland, OH	KPrime	0.569	27.8	0.756	502
Strategic Materials Medium Glass Abrasive	Midlothian, TX	ALS	0.503	13.0	0.417	377
Strategic Materials Medium Glass Abrasive	Midlothian, TX	KPrime	0.737	16.0	0.593	264
Strategic Materials 70/100 Glass	Midlothian, TX	ALS	0.421	12.2	0.449	233
Strategic Materials 70/100 Glass	Midlothian, TX	KPrime	0.535	17.6	0.336	267

¹ ALS refers to ALS Environmental, ALS Group USA, Corp., 1317 South 13th Avenue, Kelso, Washington 98626.
Kprime refers to K Prime, Inc., 3621 Westwind Blvd., Santa Rosa, California 95403

Prod Name/ Manufacturer	Source Location	Lab¹	Beryllium	Arsenic	Cadmium	Lead
Harsco Glass Cullet	Allentown, PA	ALS	0.407	5.6	0.155	60.6
Harsco Glass Cullet	Allentown, PA	KPrime	0.504	5.57	0.245	65.0
Harsco Black Beauty® Glass - medium	Orwigsburg, PA	ALS	0.405	15.5	0.243	227
Harsco Black Beauty® Glass – medium	Orwigsburg, PA	KPrime	0.419	15.0	0.250	73.4
Harsco Black Beauty® Glass – fine	Orwigsburg, PA	ALS	0.417	12.2	0.311	198
Harsco Black Beauty® Glass – fine	Orwigsburg, PA	KPrime	0.422	12.2	0.592	220
GlassBlast™	Stockton, CA	ALS	0.577	12.7	0.376	147
GlassBlast™	Stockton, CA	KPrime	0.573	22.2	0.517	192
Green Planet Glass Abrasive	Stockton, CA	ALS	0.270	4.5	0.206	32.7
Green Planet Glass Abrasive	Stockton, CA	KPrime	0.327	4.12	0.279	27.9



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The ABMA's Challenge to The OSHA Beryllium Regulations: January 2018

We are pleased to report that substantial progress has been made with regard to the ABMA's challenge to OSHA's January 9, 2017 beryllium regulations. (82 FR 2470 *et seq.*)

Timeline of Events

- **January 9, 2017** – OSHA published its new beryllium regulations
 - Three new sets of rules were issued, one set for General Industry, one for Shipyards, and one for Construction (See 29 CFR 1910.1024, 1915.1024, and 1926.1124)
 - New PEL adopted: 0.2 ug/m³ (micrograms per cubic meter)
 - New STEL adopted: 2.0 ug/m³
 - Numerous, extensive and onerous requirements were placed on abrasive blasting operations as well as on many other industries and work activities. OSHA refers to these requirements as the “ancillary provisions” although the vast majority are really new regulations and not ancillary at all.
- **January 19, 2017** - ABMA members filed a petition in court challenging the new OSHA beryllium regulations noting, among other things: (1) the new rules are not supported by sound science, (2) exposure to Beryllium from abrasive blasting is extremely low, (3) abrasive blasting is already highly regulated, (4) employees engaged in abrasive blasting are already well protected by these pre-existing extensive regulations and have no history of illness from beryllium and (5) for all of these reasons, no additional regulations are needed or appropriate. Other industries also filed petitions challenging the new regulations
- **January 30, 2017** – All the petitions were consolidated in the 8th Circuit Federal Court of Appeals, Docket No. 17-1124.
- **June 27, 2017** – After the ABMA and others presented their arguments to OSHA, the following took place:
 - OSHA issued a new proposed rulemaking to eliminate **all** of the “ancillary provisions” from the Construction and Shipyard industries.
 - OSHA agreed **not** to enforce the “ancillary provisions” for the Construction and Shipyard sectors adopted in 2017 “without further notice”. No such further notice has been provided.
- **September 11, 2017** – the ABMA Petitioners and OSHA agreed to put the ABMA petition to the 8th Circuit Court of Appeals on hold pending the outcome of the new proposed rulemaking and the Court upheld this agreement.

- **March 12, 2018** – The following is decided:
 - The new PEL and STEL are scheduled to become effective. *Important note: this date may get delayed so keep an eye out for developments.*
 - **All other rules (the “ancillary provisions”) will not go into effect for Construction and Shipyards (including abrasive blasting in those industries) without further notice from OSHA.**
 - All of the other OSHA regulations governing abrasive blasting that existed prior to January 9, 2017, will remain in effect and need to be followed.

What to Expect in 2018 and beyond

- There are petitions in the 8th Circuit by other companies and organizations that have not been placed on hold. These petitions primarily challenge the General Industry beryllium regulations. We expect further developments in those challenges.
- We are hopeful that OSHA will adopt the language of its proposed new rulemaking for Construction and Shipyards sometime in 2018.
- For those of you with operations in State OSHA Plan States please note that some have developed beryllium rules that track the January 9, 2017 Fed/OSHA rules. Further action will be needed in these states even if Fed/OSHA eliminates its “ancillary provisions”.

If you have any question as to whether the new PEL or STEL may be exceeded during your abrasive blasting operations, we recommend that you have air sampling conducted by a qualified industrial hygienist. It is ABMA’s understanding, that abrasive blasting operations will be able to meet the new PEL and STEL by following the pre-existing OSHA regulations that existed prior to January 9, 2017 but you should confirm this with your own qualified industrial hygienist.

All of the statements above apply no matter what type of abrasive blasting material you may utilize.

If you would like to assist the ABMA in its challenge to the new federal and state OSHA beryllium rules, please contact info@theabma.com. Thank you!

ABRASIVE BLASTING MANUFACTURERS ALLIANCE

OSHA'S UPDATED BERYLLIUM RULE: FAQs

OSHA recently issued proposed rulemaking to modify its beryllium rule to remove abrasive blasting from most provisions, but misinformation surrounding the rule has continued to circulate. Below are some answers to frequently asked questions about the Rule and its impact on the abrasive blasting industry.

Q: What is the current status of the OSHA Beryllium Rule?

A: OSHA has issued a new proposed rulemaking to revoke the ancillary provisions of the Rule applicable to the Construction and Shipyard sectors, which pertain to abrasive blasting, but retain the new lower PEL of 0.2 μ /m³ and the STEL of 2.0 μ /m³ for those sectors. OSHA has also agreed not to enforce the ancillary provisions for Construction and Shipyards until further notice. OSHA's rulemaking process for Construction and Shipyards is expected to conclude sometime in 2018.

Q: What do the new PEL and STEL reductions mean and how do they impact current blasting operations?

A: It is The ABMA's understanding that abrasive blasting operations will be able to meet the new PEL and STEL by following the pre-existing OSHA regulations that were in place prior to the January 2017 OSHA Beryllium Rule. If you have any questions about a particular blasting operation, however, you should consult a qualified industrial hygienist.

Q: Some crushed glass abrasive manufacturers claim that their products are beryllium free and, thus, are not subject to the OSHA Beryllium Rule. Is this true?

A: No. The ABMA released on 1/12/18 the results of an independent study assessing the beryllium content of 9 samples of crushed glass abrasives from major manufacturers and distributors in the industry. The study showed that every glass sample contained beryllium in concentrations between 0.270 and 0.757 mg/kg. These findings should lay to rest the false claims and advertising that some manufacturers of glass abrasives have deployed to mislead customers about the supposed benefits of their products. Further, as beryllium is now confirmed to be present in these glass abrasives, it is clear that they are subject to the OSHA Beryllium Rule.

Q: Doesn't removal of the ancillary provisions of the OSHA Beryllium Rule for the Construction and Shipyard sectors subject workers in those sectors to health dangers?

A: No. OSHA itself has preliminarily determined in its proposed rulemaking that eliminating the ancillary provisions for the Construction and Shipyard sectors is warranted because workers in these sectors are already covered by a substantial number of existing regulations that fully protect their safety.

For more information, contact info@theabma.com