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Statement in Opposition to the Toxic Packaging Reduction Act: New Jersey Senate, No. 3135 (Smith, McKeon) With Special Focus on the Proposed Ban on Carbon Black

The Print & Graphic Communications Association is the trade association representing printing and print-related businesses in New Jersey, New York State, Pennsylvania, and Delaware.

On behalf of our New Jersey membership, we would like to register our extreme concern and strong opposition to Senate, No. 3135, the Toxic Packaging Reduction Act (TPRA).

The TPRA, if enacted, would establish an Extended Producer Liability (EPR) requirement and ban certain chemicals from being used to produce packaging for use within New Jersey. The EPR aspect will dramatically increase costs for companies producing packaging, labels, and their customers, the consuming public within New Jersey. These increased costs will drive the production of impacted products to other states with lower cost structures.

Enactment of TPRA with the proposed ban on chemicals, including Carbon Black will end the production of packaging within New Jersey resulting in the loss of thousands of well-paying manufacturing jobs.

The following information illustrates our concerns regarding this proposed legislation:

Carbon Black and Black Printing Ink

Carbon Black is the primary pigment in black printing ink. There is no commercially available substitute for Carbon Black as a pigment in black ink. Alternative “bio-based” pigments such as those derived from algae or other biomass are carbon black pigments and will also be banned.

The use of black printing ink is ubiquitous within the printing, label converting, and packaging manufacturing industry. Black ink is used for printing text, certain images, and bar codes.

There are concerns about the readability of bar codes produced in color combinations other than a black image on a white background.

Additionally, black ink is used in CMYK printing, more commonly known as “4-color process” printing. CMYK stands for Cyan (blue), Magenta (red), Yellow and Black; the four primary colors of pigment used in 4 color process printing. Together, CMYK printing can reproduce a wide spectrum of colors by utilizing various color combinations and densities. The amount of printing

produced utilizing the CMYK process is vast, as it is the standard color model used in offset and digital printing. Four color process printing is impossible to produce without black ink.



New Jersey Economic Impact of the Proposed Ban on Carbon Black

- Banning the use of carbon black in printing inks would have a devastating impact on the label and packaging component of the New Jersey economy.
- This sector is comprised of label and packaging manufacturers and employs more than 9,400 people, working at approximately 224 printing and packaging firms with a payroll exceeding \$498 million. The annual value of packaging produced in New Jersey is approximately \$3.4 billion.
- A blanket ban on carbon black puts every one of these 8,000 jobs in jeopardy.
- The jobs in question are highly skilled, well-paying manufacturing jobs that carry health benefits, pay mortgages, put children through college, and support the New Jersey tax base.

Discussion

There is no logical reason to ban Carbon Black. Inexplicably, one of the provisions in TPRA lists Carbon Black as a “toxic substance” that must be excluded from packaging. No scientific reason is cited in the bill or in the Sponsor’s Introductory Memorandum-in-Support of the bill. There is no scientific justification presented to support this conclusion. This is simply unacceptable and should be against public policy.

Moreover, none of the U.S. States that have passed EPR laws, or any of the Canadian provinces with EPR laws have banned or restricted the use of Carbon Black as a pigment.

Perceived Toxicity of Carbon Black

In powdered form, carbon black has raised concerns related to its potential toxicity as an inhalable particulate. However, when incorporated into a matrix such ink, it is no longer classified as toxic.

While the International Agency for Research on Concern (IARC) has classified carbon black as a Group 2B carcinogen that is “possibly carcinogenic to humans,” based upon species-specific, rat lung animal studies, mortality studies of manufacturing workers do not show an association between carbon black exposure and elevated lung cancer rates. Other research and regulatory organizations have opined on carbon black as well; the National Toxicology Program (NTP) has not listed carbon black as a carcinogen, and the American Conference of Governmental Industrial Hygienists (ACHIH) classifies carbon black as A4, “Not Classifiable as a Human Carcinogen.”

Furthermore, carbon black is not present in powdered form when it is incorporated into ink or as a colorant for labels and packaging. This important distinction was recognized by the U.S. Occupational Safety and Health Administration (OSHA), because of a question posed by the National Association of Printing Ink Manufacturers (NAPIM), with OSHA definitively stating:

“The Hazard Communication Standard requires that, when mixtures have been tested as a whole, the results of such testing shall be used to determine whether the mixture is hazardous. Furthermore, in the case of printing inks, the carbon black is not present in such a form so as to present an exposure problem for employees.”

OSHA's response above shows that carbon black encapsulated in printing inks does not have the same health concerns that carbon black powder may present. Moreover, carbon black is not a chemical respiratory irritant as defined by OSHA and does not produce respiratory or dermal sensitization.

This distinction was also noted in connection with California's Proposition 65 law, which requires businesses to provide warnings to the public about significant exposures to reproductive toxicants and carcinogens. Proposition 65 is administered by the California Office of Environmental Health Hazard Assessment (OEHHA), which is an independent state agency with several responsibilities, including monitoring the scientific literature, publications of research organizations, governmental entities and academia, and other information sources to maintain and update its list of chemicals known to the State of California to cause cancer or reproductive toxicity. The Proposition 65 “Notice of Listing” addressing carbon black was released on February 21, 2003, and it specifically states:

“The listing only pertains to airborne, unbound carbon black particles of respirable size” and “Exposure to carbon black does not occur, per se, when bound within a product matrix, such as rubber, ink or paint.”

Since there have not been any revisions to OEHHA's position about carbon black, scientific evidence again supports the position that carbon black does not pose a threat to human health and the environment when incorporated into printing inks.

Black Plastics Interference in the Mechanical Recycling Process

Black plastics have been difficult to detect utilizing the outdated technology in mechanical optical sorters. Recent technological advances have made it possible to sort black plastics utilizing various processes, including hyper spectral imaging, artificial intelligence, and laser line scanning to identify and separate black plastics. These technologies are now available and in use to facilitate the sorting of black plastics. The contemplated ban of carbon black would remove black plastic, a valuable component, from the recycling waste stream.

Concerns About Ink “Bleeding” Due to Exposure to Liquids

Printing ink companies have new formulations and processes to avoid this problem. These include “washable” inks, primers, coatings, and varnishes – all designed to address the ink “bleeding” issue.

Federal Environmental Designations Concerning Carbon Black

- Carbon black is not a hazardous substance under the federal Clean Water Act.
- Carbon black is not a hazardous air pollutant under the federal Clean Water Act.
- Carbon black is not a hazardous waste under the federal Resource Conservation and Recovery Act, (RCRA).

Federal Environmental Designations Concerning Carbon Black (continued)

- Carbon black is not a hazardous substance under the federal Comprehensive Environmental Response Act (CERCLA) (federal Superfund Act).
- Carbon black is not an extremely hazardous substance under the federal Superfund Amendments and Reauthorization Act (SARA) and is not subject to SARA toxic chemical release reporting.
- Carbon black is on the chemical hazard information profile (CHIP) list under the federal Toxic Substances Control Act, as a chemical in commerce.
- Carbon black is not classified as a hazardous material for transportation purposes by the U.S Department of Transportation (DOT).

Carbon Black is Used in Many Other Products and Materials.

Carbon black is used in products that we are all exposed to every day.

| | | |
|------------------------------------|---------------------|--------------|
| Tires | Gaskets | Hoses |
| Photocopy toner | Paint | Coatings |
| Asphalt | Concrete | Batteries |
| Electronic Components | Fibers and Textiles | Cosmetics |
| Shoe Polish | Agricultural films | Sealants |
| Environmental Remediation Products | Filters | Art supplies |
| Sound dampening materials | Radiation shielding | Carbon paper |
| Thermal insulation | | |

Major Brands Currently Utilizing Black in their Packaging and/or Logo:

| | | |
|-----------------------------|------------------------------|------------------------------------|
| A&E Networks | ABM Industries | Acqua Panna |
| Activated Charcoal Products | Adidas | Alcoa Corporation |
| Amazon | Apothic Wines | Apple |
| Bloomberg L.P. | BMW | Bobbi Brown |
| Bristol-Myers Squibb | Calvin Klein | Chanel |
| Chobani | Coach, Inc. (Tapestry, Inc.) | Coca-Cola Zero Sugar |
| Colgate-Palmolive | Disney | Dove (Personal Care) |
| Estee Lauder | Evian | FedEx |
| Fiji Water | GAP | Gillette |
| Goldman Sachs | Guardian Life Ins. Co. | Gucci |
| Guinness | H&M | Harley-Davidson |
| Hearst Corporation | IBM | International Flavors & Fragrances |
| Jack Daniels | JetBlue Airways | L3Harris Technologies |
| Johnnie Walker | Kodak | Louis Vuitton |
| Lindt | L'Oreal Paris | MAC Cosmetics |
| Luxury Wellness Brands | M&T Bank Corporation | Mercedes-Benz |
| Mastercard | McCann Worldgroup | Morgan Stanley |
| MetLife, Inc. | Microsoft | Netflix |
| National Fuel Gas Company | Nespresso | Omnicom Group |
| Nike | Nivea Men | Pfizer |
| Oreo | Perrier | Puma |
| Porsche | Prada | |

Major Brands Currently Utilizing Black in their Packaging and/or Logo: (continued)

| | | |
|------------------|--------------------------|----------------|
| Ralph Lauren | Ralph Lauren Corporation | San Pelligrino |
| Sephora | Sierra Nevada | Silver Oak |
| Sony | Stag's Leap Wine Cellars | Tiffany & Co. |
| Time Warner Inc. | TRESemme | Tropicana |
| Under Armour | Verizon Communications | Viacom CBS |
| Vicks | Volkswagen | Voss |

The question is, what will these brands do with their packaging if the carbon black ban is implemented in New Jersey?

Will they develop alternate logos and packaging for use in New Jersey? This will be incredibly expensive for design, production, logistics, etc. Costs would be passed on to New Jersey consumers!

or,

Will they abandon the New Jersey market for fear of violating the ban and breaking the law?

Who knows!

Unintended Consequences of Banning Carbon Black in the TPRA - Recycled Paperboard and Corrugated Will be Illegal!

If enacted in its current form, TPRA will make it illegal to utilize recycled paperboard, recycled corrugated (aka cardboard), and some black plastics.

There are no “de minimis” amounts of Carbon black specified as acceptable under the proposed ban. That means, even trace amounts of carbon black found in any packaging will be in violation of TPRA.

Recycled paperboard and corrugated is commonly used in packaging for items such as cereal boxes, tissue boxes, cosmetics, and various other consumer products.

Recycled paperboard and corrugated is manufactured using fibers recovered from the recycling efforts of other printed products, most of which contain black ink, with carbon black, in various levels.

During the manufacturing process, these reclaimed printed materials are re-pulped but not de-inked. As such, the recycled paperboard and corrugated is guaranteed to contain various levels of carbon black, making its use illegal if TPRA is enacted into law.

This “unintended consequence” is a totally illogical result which defies the philosophy TPRA and other environmental regulations-Recycle and reuse!

Conclusion

In sum, banning carbon black as a toxic substance under TPRA, without any qualifying statements regarding its form, is not appropriate or accurate. Independent federal and state government agencies, utilizing scientific data, have studied the toxicity issue, and have concluded that there is no threat to human health or the environment due to the presence of carbon black used to color printing inks. Furthermore, changes in recycling separation technologies and printing formulations are solving the problems associated with black plastics sorting and ink “bleeding.” And since carbon black is not soluble in water, it will not leach or release any constituents to groundwater when properly disposed of in a permitted solid waste management facility.

- The use of black ink containing carbon black is ubiquitous within the printing and packaging industry.
- There is no commercially available substitute for carbon black as a pigment.
- There is no other governmental entity or agency in North America banning the use of carbon black.
- Carbon black is used in products that we are all exposed to every day.
- Brands with black ink in their packaging will have major decisions to make with massive repercussions to New Jersey consumers.
- Technology has solved the concerns about sorting “black plastic” during the recycling process and has remedied concerns about the “bleeding” issue.
- Banning carbon black will result in the loss of approximately 9,400 manufacturing jobs in New Jersey.

On behalf of our New Jersey membership, we respectfully request that you “VOTE NO” on the Toxic Packaging Reduction Act!

Thank you for your time!

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