



February 26, 2024

То:	NYS Committee of Codes
From:	PRINTING United Alliance
Re:	Oppose S. 4246-B/ A. 5322-B – Packaging Reduction and Recycling Act
Dear Member of the NYS Assembly Committee of Codes	

PRINTING United Alliance is writing to express our strong opposition the newly amended bill, NY S. 4246-B/A. 5322-B, related to establishing an Extended Producer Responsibility program for packaging that would require producers of packaging materials to be responsible for managing post-consumer packaging waste; establish non-reusable packaging reduction requirements for packaging producers; and ban the use of certain substances and materials from packaging.

As background, PRINTING United Alliance represents the interests of facilities engaged in producing a wide variety of products through screen printing, digital imaging, flexographic, and lithographic print processes. The print industry is comprised primarily of small businesses, with approximately 95 percent of the printing industry falling under the definition of a small business as described by the Small Business Administration.

In the state of New York, the economic impact of manufacturing or converting packaging is significant. There are 260 printing and packaging firms located in the state that employ more than 8,000 people with a payroll exceeding \$400 Million. The annual value of packaging produced in the state is nearly \$2.8 Billion and a blanket ban on carbon black puts all these jobs and economic activity in jeopardy.

Furthermore, the inability to use black ink to either print directly onto a package or on a label that is applied to the package will also have significant consequences for the consumer and workplace. Critical information such as product name, ingredients, instructions, warnings, manufacturer information, expiration dates, etc. will not be communicated to the end user. The attached carbon black white paper provides a sound basis as to why a ban on carbon black is not scientifically warranted.

In addition to the substantive concerns about the ban on carbon black, we have additional concerns about the approach to advancing this legislation. These amendments were put forth without meaningful stakeholder input or robust detailed discussion of the complex provisions. There is limited opportunity for stakeholders to provide public comments and for legislators to consider comments and evaluate the bill on its merits.

S. 4246-B/ A. 5322-B is a multipart policy initiative that involves many stakeholders and has broad impacts on many industries as well as residents/consumers in the state. While the Alliance recognizes improving the recycling system is critical, this legislation has many concerning provisions. This bill offers a framework for a comprehensive EPR program with far-reaching impacts. It therefore warrants full and fair consideration and adequate debate.

### Excludes Packaging with a Broad Set of Chemistries from being "Recyclable"

The legislation arbitrarily excludes packaging with potentially thousands of chemicals at any amount from being considered recyclable. The designation of substances to be excluded will affect a significant amount of current packaging within two years of the bill's effective date. As such, many packaging products will end up at the sorting facility as contaminants and will be landfilled.

The legislation defines "Toxic Substance" as any chemical substance identified by the Department of Environmental Conservation (DEC) or other government entity, research university or other scientific entity deemed authoritative based on credible scientific evidence. The bill also allows DEC to periodically add to the banned substances list.

This language runs counter to the recently finalized chemical regulation legislation signed into law in New York State that focused on children's products. The legislation laid out a framework for working with expert scientists, identifying high priority chemicals, taking action and making decisions on those chemistries when warranted by the best available risk assessment science on thousands of products.

The language also conflicts with the legislation adopted in 1990 under Article 37 of the New York State Environmental Conservation Law, that set forth specific requirements and restrictions on the use of four toxic heavy metals when used in packaging. The restricted metals include lead, mercury, cadmium, and hexavalent chromium. The Hazardous Packaging Law establishes maximum concentrations of 100 parts per million (ppm) by weight for lead, cadmium, mercury, or hexavalent chromium. The law was intended to reduce the toxicity of this waste stream prior to disposal, without impeding the continued use of post-consumer materials in the production of packaging. The law also sets forth definitions, exemptions, and violation provisions.

If the intent of this legislation is to increase the amount of packaging being recycled, it will not achieve the goal as it will result in excluding materials and result in reduced recycling. One example of this definition being overly restrictive is that it would limit companies that have existing investments in projects outside of NY that are testing curbside collection of flexible plastic packaging.

These companies would like to expand across the US and create a material that can be processed using advanced recycling technologies. These materials currently end up at the sorting facility today as contaminants. Separating these materials out increases the value of the specific bales and that sortation alone could be worth the price of installing the equipment as there is an increasing market for companies willing to accept the material for recycling (e.g., wall board, advanced recycling, pyrolysis, etc.). This additional sortation would bring greater value to the system and allow more material to be recycled.

### Ban on "Toxic Substances"

This legislation bans packaging containing numerous chemistries designated as "toxic substances" and creates a Task Force to recommend additional substances to ban. This proposal expands the list of chemicals beyond the heavy metals currently banned under the NY Hazardous Packaging Act to include

carbon black, ortho-phthalates, bisphenols, PFAS, benzophenone, flame retardants, perchlorate, formaldehyde, toluene, PVC, and polycarbonate.

Imposing wide bans on the mere presence of chemicals in packaging, without clear environmental or public health justification like A.5322B does, is not a means to creating an effective and efficient packaging EPR program. Additionally, banning any presence of certain chemicals in packaging, without providing for any de minimis levels to account for substances that were not intentionally added, undermines the potential use of recycled content in products and makes and EPR program impractical.

This overly broad prohibition disregards sound science and could potentially have major unintended socioeconomic, environmental, and public health consequences by arbitrarily eliminating packaging best suited for, among other uses, food preservation, medical supply and device protection and hazardous materials containers.

Lastly, this bill also creates a Toxic Packaging Task Force that would recommend additional toxic substances to be banned, potentially targeting hundreds of substances without sound scientific basis, and creating uncertainty for businesses in commerce.

### Advanced Recycling Precluded from Definitions of "Recycling" and "Post-Consumer Recycled Material"

As written, the bill excludes advanced recycling from the definition of "recycling" (does not include: (A) energy recovery or energy generation by any means, including but not limited to ... pyrolysis, gasification, solvolysis, waste-to-fuel; (b) any chemical conversion process). It also therefore excludes advanced recycling outputs from the definition of "post- consumer recycled material."

In just the past three years, more than \$5 billion in private sector investments including advanced recycling have been announced to help modernize the U.S. recycling infrastructure and expand the types of volumes of plastics that can be reused or incorporated into a circular economy. Advanced Recycling legislation has passed in 24 states including Michigan, New Hampshire, Pennsylvania, and Virginia.

These new investments have the potential to serve new markets in the coming months and years, and these facilities are expected to recycle up to 9 billion pounds of material per year. The limiting definition in S.4246-B/A.5322-B therefore would close a 9-billion-pound market to New York communities and material facilities.

Advanced recycling is **NOT** incineration. Advanced recycling converts post-use plastics into their original building blocks, specialty polymers, feedstocks for new plastics, waxes, and other valuable products. This process takes place in the absence of oxygen. Incineration is the combustion of unsorted municipal solid waste to turn into electricity. Combustion requires oxygen.

Advanced recycling can contribute significantly to a circular economy wherein plastics are repurposed rather than disposed, which helps keep plastics out of the ocean/environment. Ongoing and emerging advances in mechanical recycling are capturing more types of post-use plastics, while advanced recycling is poised to capture primarily used plastics that are not widely recycled today.

### Overly Aggressive and Unworkable Mandates and Timelines

This legislation includes mandates for (1) reduction of non-reusable packaging; (2) recycling of non-reusable packaging; and (3) inclusion of post-consumer content. However, there has not been a dialogue with stakeholders, cost analysis or completed market impact studies to determine the feasibility or practicality of these mandates.

Setting statutorily mandated recycling, recycled content, source reduction or other goals is an extremely challenging exercise, especially without any reliable data to support what these goals might be in the State. Goals should be developed following establishment of a EPR law and with proper study of the recycling system or markets in New York through a statewide needs assessment such as is being conducted right now by the Center for Sustainable Materials Management and SUNY College of Environmental Science and Forestry.

Setting an extremely aggressive set of rates and packaging reduction mandates, like A.5322B does might look like progress, but without a true vision of what that future might look like either dooms the law to fail or will result in companies going out of business in the State. We strongly encourage a full evaluation and consideration of these and other factors as part of the discussion around an EPR program.

### Funding Mechanism

The funding mechanism in a successful EPR program must be reasonable and constructed in a way that shares costs between producers and municipalities for fair and reasonable allocations of services and costs. We oppose funding mechanisms that would provide for 100% cost reimbursement from producers to municipalities or private entities for collection, recovery, recycling, and processing of packaging materials – especially without providing for incentives or best practices for improving recycling. Improving the recycling system is a shared responsibility and funds should primarily support infrastructure development and reimbursements should only be used to return a material to a neutral market value – not cover the entire recycling system as it exists today.

### Enforcement and Office of Inspector General

EPR systems must be efficient and effective, without undue administrative structures and unfair enforcement practices. Concepts such as creating an Office of Inspector General, included in A.5322B, duplicates the existing authority that would be vested in the Department of Environmental Conservation (DEC) and in some cases the State's Attorney General. Creating wholly punitive enforcement departments that duplicate existing enforcement mechanisms serves no useful purpose and subtracts from funding that could be used to improve recycling in New York.

For the above reasons, we respectfully request that you OPPOSE S. 4246-B/ A. 5322-B.

Sincerely,

Law a Jones

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# Carbon Black Ban: Legislation and Impact on the Printing Industry

February 10, 2024

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#### **Executive Summary**

In February 2024, New York State introduced legislation NY S. 4246-B/A. 5322-B that would set out the requirements for an Extended Producer Responsibility program for packaging and ban the use of certain chemicals in packaging. One of the proposed materials included in the ban is carbon black, the primary pigment in black printing inks. Banning the use of carbon black in printing inks would have a devastating impact on the printing and packaging converting industry from both a manufacturing and subsequent use perspective.

In the state of New York, the economic impact of manufacturing or converting packaging is significant. There are 260 printing and packaging firms located in the state that employ more than 8,000 people with a payroll exceeding \$400 Million. The annual value of packaging produced in the state is nearly \$2.8 Billion and a blanket ban on carbon black puts all these jobs and economic activity in jeopardy.

Furthermore, the inability to use black ink to either print directly onto a package or on a label that is applied to the package will also have significant consequences for the consumer and workplace. Critical information such as product name, ingredients, instructions, warnings, manufacturer information, expiration dates, etc. will not be communicated to the end user.

Based on the language of this bill there appears to be three main driving factors for the ban on carbon black:

- Toxicity concerns associated with carbon black. The concern with carbon black toxicity is based on the form in which it is being used. In a powder form, it presents concerns. However, carbon black is not found in a powder form when it is incorporated into an ink or as a colorant for a package. This very critical distinction has been recognized by both the Occupational Safety and Health Administration and under California's Proposition 65 program.<sup>4</sup>
- Interference of black plastics in the mechanical recycling process. Black plastic, particularly those that
  use carbon black as the primary pigment are difficult to detect with the near-infrared (NIR) optical
  sorters used in recycling facilities. However, there have been several technological advances that
  have overcome this problem and they allow black plastic to be identified and properly sorted. As this
  technology becomes more commonplace, banning black plastic or packaging containing carbon black
  is not necessary and would eliminate a viable packaging option that provides unique benefits to the
  product being sold or distributed.
- Concerns about ink "bleeding" occurring during the mechanical recycling process. A "bleeding" ink is
  one where water dispersible or water-soluble inks are released during the recycling process that can
  result in discolored wash water and potentially contaminate or stain the recycled material. However,
  this problem has also been addressed through new technology and ink reformulation. These changes
  have eliminated the contamination resulting from ink bleeding.

The state of the art with respect to new resins, additives, and recycling technology is rapidly evolving as various groups including business, academia, and government entities are researching and discovering innovations. Legislation that is based on the current state of technology will quickly become outdated as progress on many fronts continues to evolve and accelerate.

The current draft language in the bill needs to be revised with respect to their inclusion in a ban on materials that can be used in packaging, especially due to their impact on the use of printing inks. The identification of carbon black as a toxic material without any qualifying statements regarding its form is not accurate as carbon black only presents toxicity concerns in a powder and unencapsulated form. Any legislative restriction or



prohibition on specific chemicals or materials should explicitly exclude printing inks and packaging containing carbon black.

## Introduction

The quest to address the recyclability of various types of packaging has given rise to a lot of activity by various stakeholders in the packaging life cycle. This includes suppliers of materials, designers, packaging and label converters, recyclers, brands, consumers, and federal, state, and local governments. The actions by all the stakeholders have produced new materials, improvements of existing recycling technologies, new recycling technologies, guidance documents, and new laws and regulations. The most significant challenge with laws and regulations is that they only represent a "snapshot in time" and are generally not structured to allow for the needed flexibility to address a rapidly evolving situation with many variables.

In February of 2024 legislators in the New York State Assembly and Senate introduced Senate Bill S. 4246-B/A and Assembly Bill 5322-B, Packaging Reduction and Recycling Infrastructure Act that would have created an Extended Producer Responsibility (EPR) program for packaging and banning the use of certain toxic chemicals in packaging. One of the materials proposed to be banned is carbon black. This legislation has the potential of having serious ramifications on packaging and the printing industry because carbon black is one of the most predominant black pigments used in black printing inks. The ban would prevent the use of black ink to print critical information on packaging.

For products that contain chemicals, labels provide important information about the dangers of the chemicals and the recommended protective measures. Without labels, people would not be able to identify the contents of the containers, the hazards they pose, or how to handle them safely. This could lead to accidents, injuries, illnesses, or even fatalities.

Labels also help to avoid abandoned containers of unknown materials that may be expensive or instructions on safe disposal. Labels also help to keep track of where things belong and prevent confusion or misuse of products. Therefore, labels are essential for ensuring a safe and efficient home and workplace.

If this legislation is passed and signed into law, the impact on the printing industry in New York State would be devastating. Any printing performed in these states and any printed product shipped into these states will be affected due to the ban on carbon black. There are 260 printing and packaging firms located in the state that employ more than 8,000 people with a payroll exceeding \$400 Million. The annual value of packaging produced in the state is nearly \$2.8 Billion and a blanket ban on carbon black puts all these jobs and economic activity in jeopardy. The printing industry is a vital part of the state's economy and a blanket ban on carbon black puts all these jobs and economic activity all these jobs and economic activity in jeopardy.

The draft language for New York State is summarized below.

# New York<sup>1</sup>

§ 27-3425. Prohibition on certain toxic substances and materials.

https://assembly.state.ny.us/leg/?default\_fld=&bn=A05322&term=2023&Summary=Y&Actions=Y&Text=Y&Commit\_tee%26nbspVotes=Y&Floor%26nbspVotes=Y#A05322



<sup>&</sup>lt;sup>1</sup> A05322B (same as S04246-B) -

1. Beginning two years after the promulgation of rules and regulations pursuant to this title, no person or entity shall sell, offer for sale, or distribute into the state any packaging containing any of the following toxic substances:

(k) carbon black

§ 27-3431. Recyclability criteria and packaging recycling requirements.

1. Beginning two years after the effective date of this section, packaging materials used by a producer shall meet the following recyclability criteria:

does not contain the following:

(i) non-detectable pigments, including but not limited to carbon black;

(ii) the toxic substances set forth in subdivision one of section 4 27-3425 of this title and those designated by the toxic packaging task force pursuant to subdivision two of section 27-3425 of this title;

(vi) label constructions, including adhesives, inks, materials and formats, or features that render a package non-recyclable or disruptive to the recycling process, as determined by the department in consultation with the advisory council;

# Analysis

Based on the language in the bills there are three main driving factors for the ban on carbon black. First, the toxicity concerns associated with carbon black in powder form. Second, is the interference of black plastic with optical sorters in mechanical recycling processes. The last reason is the interference of some printing inks with the recycling process that result in ink "bleeding" causing discoloration of the recovered resins.

Unfortunately, the ban on carbon black, which can be a nondetectable pigment, is so broad it includes the use of carbon black in black printing inks that are used to either print directly on a package or on a label that is applied to the package. Ink is an integral part of the printing and manufacturing industries. Almost every manufacturing process that results in the production of a tangible product will likely include packaging, labels, or leaflets.<sup>2</sup> On food and pharmaceutical products for example, instructions and storage methods are displayed, reducing the chance of waste being produced. In its most specialized uses inks can conduct electricity, change color based on temperature, and prevent counterfeit fraud. Ink plays a vital role in our everyday lives to educate and inform us.<sup>3</sup>

One of the first publications to identify the toxicity of carbon black in powder form came in 1996 from the International Agency for Research on Cancer's (IARC) Monograph 65 on Printing Processes and

inks/#:~:text=On%20food%20packaging%20for%20example,and%20warning%20us%20of%20danger.



<sup>&</sup>lt;sup>2</sup> Ink World 2020 - <u>https://www.inkworldmagazine.com/issues/2020-05-01/view\_online-exclusives/the-importance-of-the-ink-industry-in-everyday-life/</u>

<sup>&</sup>lt;sup>3</sup> UEPIA - <u>https://www.eupia.org/about-us/the-value-of-printing-</u>

Printing inks, Carbon Black, and Some Nitro Compounds.<sup>4</sup> The IARC categorized carbon black as a Group 2B carcinogen meaning carbon black powder is possibly carcinogenic to humans. However, monograph 65 also specifies that:

"End users of these products (rubber, ink, or paint) are not exposed to carbon black per se, since it is bound in a matrix." <sup>4</sup>

After this publication was released by IARC, the National Association of Printing Ink Manufacturers (NAPIM) contacted the Occupational Safety and Health Administration (OSHA) in July of 1996 regarding the Group 2B classification of carbon black and its impact on printing inks. In their letter NAPIM pointed out that the Hazard Communication Standard (HCS) prefers to use health hazard data on mixtures over health hazards on individual mixture components [29 CFR 1910.1200(g)(2)(i)(B)].<sup>5</sup> In this case, the Group 3 classification of printing inks, meaning not classifiable as carcinogenic to humans, by the same IARC monograph<sup>4</sup> would take precedence over the Group 2B classification of carbon black powder for any printing ink mixture containing dispersed carbon black. In their 1996 response, OSHA agreed with NAPIM and stated:

"The HCS 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 the printing inks, the carbon black is not present in such a form so as to present an exposure problem for employees." <sup>6</sup>

OSHA's response to the request from NAPIM shows that carbon black encapsulated in printing ink does not have the same health concerns that carbon black powder presents.

The same situation exists with the listing of carbon black under California's Proposition 65.<sup>7</sup> California's Proposition 65 requires businesses to provide warnings to the public about significant exposures to reproductive toxicants and carcinogens. The notice of listing addressing carbon black was released on February 21, 2003<sup>8</sup>, and it specifically states:

"The listing only pertains to airborne, unbound carbon black particles of respirable size" <sup>8</sup> and "Exposure to carbon black does not occur, per se, when bound within a product matrix, such as rubber, ink or paint." <sup>8</sup>

California's Proposition 65 is administered by the Office of Environmental Health Hazard Assessment (OEHHA). OEHHA is an independent agency with several responsibilities. OEHHA continually monitors the scientific literature, publications of research organizations, governmental entities and academia, and other information sources to fulfill its mission. Since there has not been any revisions to OEHHA position

<sup>&</sup>lt;sup>8</sup> Listing Notice for Carbon Black - <u>https://oehha.ca.gov/proposition-65/chemicals/carbon-black-airborne-unbound-particles-respirable-size</u>



<sup>&</sup>lt;sup>4</sup> IARC Monograph 65 - <u>https://publications.iarc.fr/Book-And-Report-Series/Iarc-Monographs-On-The-Identification-Of-Carcinogenic-Hazards-To-Humans/Printing-Processes-And-Printing-Inks-Carbon-Black-And-Some-Nitro-Compounds-1996</u>

<sup>&</sup>lt;sup>5</sup> NAPIM Letter to OSHA 1996 – copy available upon request

<sup>&</sup>lt;sup>6</sup> OSHA Response Letter 1996 – copy available upon request

<sup>&</sup>lt;sup>7</sup> California Proposition 65 - <u>https://leginfo.legislature.ca.gov/faces/codes\_displayText.xhtml?lawCode=HSC&</u> <u>division=20.&title=&part=&chapter= 6.6.&article</u>

about carbon black exposure from inks, inks with carbon black do not pose a threat to human health and the environment.

The second reason for banning carbon black is the incompatibility with optical sorters in mechanical recycling processes when incorporated into plastic as a colorant. Plastic that has been colored black is referred to as black plastic. Black plastic, especially those that have carbon black as the primary pigment, are difficult to detect with mechanical optical sorters because they use near infra-red (NIR) technology to detect materials to be separated for recycling. Carbon black interferes with this technology absorbing most of the light emitted by the optical sorter instead of reflecting it, making it invisible to the sorter.<sup>9</sup> This means that even though black plastic is recyclable, it is not easily separated with some of the most common sorting technology and most of it gets incinerated or landfilled.

However, technological advances are making it easier to sort black plastics. A German company, Steinert, has developed the UniSort BlackEye which is able to successfully separate black plastics.<sup>10</sup> This new type of sorter uses hyper spectral imaging (HIS) technology which evaluates 256, rather than the usual 16, measuring points in the electromagnetic spectrum and can detect even the slightest differences in the chemical composition of the materials being processed.<sup>11</sup> This new technology does allow for the identification and separation of black plastic by color and polymer. Separation by polymer is also very important because if the sorter ejects all black plastics materials together, there could be as many as 15 different polymers in the mix making the remanufacturing process harder.<sup>9</sup>

Another new technology that has just been introduced is Deep Laiser by the Norwegian company TOMRA<sup>12</sup>. This new technology also makes it possible to identify and sort black plastic. Deep Laiser works in concert with existing NIR sensors and detects any material on the conveyor belt that the NIR is incapable of identifying, like black plastic and glass. The technology uses artificial intelligence (AI) and laser line scanning to create a digital copy of objects that can be used for advanced data-driven decision making. Deep Laiser enables 3D object recognition and enhanced classification of materials to provide high accuracy sorting across many applications.<sup>13</sup>

The last potential concern for inks and mechanical recycling is ink "bleeding". A "bleeding" ink is one where water dispersible or soluble inks are released during the recycling process that can result in discolored wash water and potentially contaminate or stain the recycled material.<sup>14</sup> Ink "bleeding" occurs during the caustic bath wash portion of the recycling process.<sup>15</sup>

Discoloration is a bigger problem for some plastics than others because plastics like PE and HDPE are already colored when being recycled. However, since end use is not known beforehand, inks that do not bleed during the recycling process should be the preferred ink choice. To avoid ink bleeding, ink

<sup>&</sup>lt;sup>15</sup> Plastics Technology 2022 - <u>https://www.ptonline.com/articles/solvent-based-inks-boost-pet-recycling</u>



<sup>&</sup>lt;sup>9</sup> Recycling Magazine 2022 - <u>https://www.recycling-magazine.com/2022/09/22/black-plastics-recycling-towards-a-circular-economy/</u>

<sup>&</sup>lt;sup>10</sup> Steinert 2016 - <u>https://steinertglobal.com/news/news-in-detail/steinert-launches-system-for-separation-of-black-plastics-at-ifat-2016/</u>

<sup>&</sup>lt;sup>11</sup> Recycling International 2019 - <u>https://recyclinginternational.com/plastics/steinerts-black-plastics-technology-closes-the-gap-between-waste-and-new-products/27434/</u>

<sup>&</sup>lt;sup>12</sup> Van Dyk Recycling Solutions - <u>https://vdrs.com/tomra-optical-sorting/</u>

<sup>&</sup>lt;sup>13</sup> TOMRA - <u>https://www.tomra.com/en/waste-metal-recycling/products/technologies</u>

<sup>&</sup>lt;sup>14</sup> APR 2021 - <u>https://plasticsrecycling.org/images/Design-Guidance-Tests/APR-HDPE-S-01-bleeding-label.pdf</u>

companies are working on revisions to their formulations to avoid this problem. For example, Sun Chemical<sup>15</sup> and INX<sup>16</sup> have developed washable inks that do not interfere with the recycling process. The Association of Plastic Recyclers (APR) developed and released a test method, Natural HDPE Flake Washing Test, for determining if an ink will "bleed" during the recycling process.<sup>14</sup> This test is a good predictive indicator to determine the behavior of an ink in the mechanical recycling process.

Other companies have developed primers and coatings to make inks compatible with the recycling process. For example, Siegwerk<sup>17</sup> and Flint Group<sup>18</sup> have developed deinking primers. These primers are printed on the label before the ink and keep a strong adhesion throughout the life of the label. The label is then released during the caustic wash, and this results in more than 99% of the material being recycled into something new. Flint Group<sup>18</sup> has also developed a varnish that is applied after the colors and printed that ensures the inks remain on the label throughout the recycling process. The varnish is a specialized layer of coating that prevents bleeding and during the caustic wash portion of the recycling process can be skimmed off with the label.

Finally, the company Magnomer<sup>19</sup> has developed magnetizable coatings that make it easy to separate the label from the bottle. Because these coatings are printed just like any other color, they are cost effective and compatible with current high speed printing operations. During the recycling process bottles and labels are shredded into flakes. With the use of Magmar SS coatings the label can be efficiently separated from bottle flakes by magnetic separators already present and recycling facilities.

# A Call for Revisions to Legislative Provisions

The current draft language in the bills needs to be revised with respect to their inclusion of a ban on carbon black and materials that can be used in packaging, especially when they are used in printing inks. The identification of carbon black as a toxic material without any qualifying statements regarding its form is not appropriate or accurate as carbon black only presents toxicity concerns in an unencapsulated powder form. Several independent agencies have studied this issue and came to their own conclusions that carbon black that is encapsulated or bound in a matrix such as an ink does not share the same toxicity profile as the powder form. There is no threat to human health and the environment due to the presence of carbon black used to color printing inks.

Any legislative restriction or prohibition on specific chemicals or materials should explicitly exclude printing inks containing carbon black. Furthermore, changes in separation technology are quickly solving the problem of black plastic not getting separated by optical sorters. As this technology becomes more commonplace, banning black plastic or packaging containing carbon black is not necessary and would eliminate a viable packaging option that provides unique benefits to the product being sold or distributed.

The current structure of the draft legislation banning certain materials clearly indicates that outright bans on these materials are not accurate, especially carbon black, and it creates unintended

<sup>&</sup>lt;sup>19</sup> Magnomer - <u>https://magnomer.in/</u>



 <sup>&</sup>lt;sup>16</sup> APR 2021 - <u>https://plasticsrecycling.org/images/Critical-Guidance-Letters/APR-CGR-PET-label-sleeve-inx-2020.pdf</u>
 <sup>17</sup> Ink World 2022 - <u>https://www.inkworldmagazine.com/contents/view\_breaking-news/2022-06-09/siegwerks-</u> deinking-primer-improves-packaging-recyclability-circularity/

<sup>&</sup>lt;sup>18</sup> Flint Group - https://www.flintgrp.com/en/divisions/packaging-narrow-web/narrow-web/evolution/

consequences. Prescriptive legislation such as that which is contained in the drafts is very inflexible, and it can create significant disincentives and styme innovation and technological evolution.

The state of the art with respect to new resins, additives, and recycling technology is rapidly evolving as various groups including business, academia, and government entities are researching and discovering innovations. Legislation that is based on the current state of technology will quickly become outdated as progress on many fronts continues to evolve and accelerate.

A more appropriate approach is to create a review panel with representatives from key stakeholder groups that will periodically meet, and review issues and concerns causing interferences in recycling or pose an unacceptable threat to human health and the environment based on sound science. Topics for discussion may include ingredients, components, separation, and recycling technologies.

Therefore, the legislation needs to be restructured to acknowledge the rapid changes that are occurring and allow for the development of innovative solutions, rather than styme them. Solving the packaging recycling problem requires inventive approaches and the legislation in New York with possibly more states to follow, is drafted in a manner that would impede, rather than foster innovation.

