Over the past several years our industry has been inundated with a seemingly endless stream of new or “updated” regulations from around the world. The information that follows has been accumulated from many sources and is correct to the best of our knowledge. What follows is meant as guidance and should not be construed as legal documents or advice.

This information covers the North American market. Whitford, which has regulatory experts on staff in all major markets, has similar information for the rest of the world. Just ask us.

**FDA regulations for traditional nonstick coatings**

The regulation properly known as 21 CFR 175.300, “Resinous and Polymeric Coatings”, is the umbrella regulation covering most coating formulations that have any food contact. There are additional regulations numbering in the dozens that cover specific polymers, additives, pigments. They tend to cover single specific resins or additives.

The FDA does not allow heavy metals to be used in coatings for food contact. Heavy metals (lead, chrome, cadmium, and others) are often introduced when high-temperature pigments are used that contain these complexes. Bright colors, especially in the red, orange and yellow spectrum, should be viewed with extreme caution as they tend to include the metals mentioned above.

It must be pointed out that the FDA does not have approval authority related to coatings. There is no such thing as an “FDA Approved Coating”. Coatings are considered “FDA-compliant” when they meet four criteria:

1. The coating manufacturer can confirm in writing that it uses materials that conform to the FDA regulations (such as §175.300) and follow good manufacturing practice in the formulation and manufacture of the coatings, and...
2. The coating is applied in a continuous film over the substrate, and...
3. The finished product, e.g., cookware, etc., passes the extraction tests covered in §175.300 Tables 1 and 2 to prove conformance to the FDA Regulations, and...
4. The finished product is thoroughly cleaned prior to use. All four criteria, not just some, must be met for the finished product, and the coating, to be considered FDA-compliant.

There is no such thing as an “FDA-Approved Coating”. Go to: productknowledge.com
FDA regulations for sol-gel coatings

Sol-gel coatings do not meet the definition for “Resinous and Polymeric Coatings”, nor do they fall under any other specific regulation for food additives. Instead, since all nonstick coatings are considered food additives, the cured sol-gel must meet the safety standards in §170 Subpart B-Food Additive Safety. To meet these requirements, migration of substances from the coating must be < 0.5 parts per billion and not have other impacts on food or the environment (1 part per billion is the equivalent of 1 second in 32 years). In addition, as with traditional nonstick coatings, all of the other components of the formulation, e.g., polymers, additives, pigments, etc., must still comply with their respective regulations.

Health Canada

Health Canada is the agency responsible for the health and well-being of Canadian citizens. Within Health Canada’s structure is the Bureau of Chemical Safety, comparable to the USA’s Food and Drug Administration.

One of the Bureau’s sections is the Food Packaging Materials and Incidental Additives, responsible for ensuring that chemicals do not enter food (from any source, including housewares) at levels that pose an unacceptable risk to health. Like the U.S. FDA, this section will review coating formulae upon request and, if the submission complies with Canada’s Food and Drug Act and Regulations, issue a Letter of No Objection to the petitioner. If it is suspected that food is being adulterated by housewares, Canada’s Consumer Product Safety Bureau is empowered to conduct investigations, inspections, seizures, recalls, and prosecutions.

Consumer Product Safety Commission (CPSC)

In 2008, the Consumer Product Safety Commission published a certification rule requiring manufacturers and importers (including private label) to certify that their products comply with all CPSC product safety rules, bans, standards and limitations administered by the CPSC.

The question was raised as to whether this ruling applied to the coatings used on cookware, bakeware and small appliances and/or other basic housewares items.

With regard to the CPSC rule, nonstick coatings are regulated by the Food and Drug Administration (FDA), not the CPSC. The FDA has jurisdiction over food-contact surfaces when there is a risk of migration of harmful substances, whereas the CPSC has jurisdiction over mechanical failures, such as breaking glass, handles falling off, or delamination of multi-ply steel bodies.

Generally, the FDA is the predominant authority over cookware, bakeware and small-appliance products used in food-service applications. Their regulations are always the first place to look. After some research, to our knowledge, there are no CPSC regulations or requirements (other than obviously fitness of purpose and general safety) that involve cookware or bakeware. The CPSC has authority over product safety, particularly
as it affects product performance, design and fitness for use.

The CPSC rule does not impact products as far as the nonstick coating is concerned.

**Standards setting bodies: NSF (USA, Asia)/UL (USA)**

The National Sanitation Foundation International is an independent, third-party standards organization. NSF certification is a valuable marketing tool and a necessity for companies that sell equipment for food processing and potable water applications. Many companies that sell housewares products at retail also seek NSF certification. NSF certifies entire articles, not just the coatings (except as components of the article).

Like the NSF, Underwriters Laboratories (UL) is an independent, third-party standards organization. Known primarily for its certification of electrical appliances rather than food and water standards, UL now conducts tests and issues certifications for NSF and ANSI standards (much as the NSF does).

**California Proposition 65 (USA)**

The “California Safe Drinking Water and Toxic Enforcement Act of 1986,” commonly known as “Proposition 65”, requires the governor of California to publish a list of chemicals “...known to the State to cause cancer or reproductive toxicity...” and establishes two prohibitions regarding the use of these chemicals. First, no person may knowingly expose any individual to a significant amount of a regulated chemical without first providing a “clear and reasonable warning” to the individual. Second, no person may knowingly discharge or release a significant amount of a listed chemical into drinking water or onto land where it will pass into a source of drinking water.

**Safer Consumer Products Regulations (USA)**

The Safer Consumer Products Regulations (SCPR) became effective on October 1, 2013. The SCPR requires California Department of Toxic Substances Control (DTSC) to develop a list of “chemicals of concern” and obtain information on the use of those substances within the State of California. From that information, the DTSC publishes a list of priority products containing the listed chemicals. Once published, responsible entities (manufacturers, importers, assemblers, and retailers) are required to perform an “alternatives analysis” to determine if “safer” chemicals could be used.

The DTSC published its draft initial work plan in September 2014. Neither food-contact articles nor substances used in nonstick coatings were listed in the draft plan. For information on the regulations, please refer to the DTSC Safer Consumer Products Portal.

**North American Take Back Regulations**

Extended Producer Responsibility (EPR) as defined by the Organisation for Economic Co-operation and Development (OECD) is “an environmental policy approach in which a producer’s responsibility for a product is extended to the post-consumer stage of a product’s life cycle”. This concept has been extended to many products such as batter-
ies, oil, and electronic products through “take-back” regulations. These regulations require manufacturers to collect used household electronics for recycling and/or recovery.

**United States**

In the United States, take-back regulations have been implemented at the state level and the programs vary in scope. Some states regulate only computers and similar electronics, while others, like Pennsylvania, include household electrical appliances. Unfortunately, appliance manufacturers need to review the individual state regulations to determine those requirements.

**Canada**

In Canada, take-back regulations have been developed at the provincial level. However, as of October 2014, they focus on computers, televisions, and similar electronics.

*For more information on regulations around the world, please contact the Retail team or go to PKN’s website: [http://www.productknowledge.com/regulatory-information.html](http://www.productknowledge.com/regulatory-information.html)*