"THERE IS NO AWAY"

The general issue of "Plastics in the Environment" is growing in public awareness with increasing calls by a growing list of non-governmental organizations (NGO's) for producers and users to do something about it. The European Union Directive on Single-Use Plastics is the first action of many likely to come. According to the NGO Better Alternatives Now (BAN), "Plastic – a material invented to last forever – can no longer be used to make products intended to be thrown away. There is no AWAY."

We in the nonwovens business use many materials that are considered by the concerned to be "plastics" even if the end product does not make that fact readily apparent, such as in single use disposable Wipes and Absorbent Hygiene products, two market sectors among the largest users of nonwoven materials by weight and by square meter. Thus we, as an industry, need to understand the issue and its many components. This involves developing a common messaging strategy to indicate that we understand the issue, agree there is more we can do, and lay out some directions in material science and embracement of the "Circular Economy" approach as constructive solution elements.

Understanding the issue means clarifying the language and concepts commonly used without precision. First and foremost is the need for precision in the language used to describe and define the term "plastics." As it relates to nonwovens, one definition of a plastic is a synthetic or semisynthetic organic polymer. Defined chemically, a plastic *always* includes carbon and hydrogen. Other terms needing a common understanding include Biodegradable, Sustainable, Man-Made/Synthetic. Our industry should lay out what we mean when we use these terms to provide clarity to our position.

We also need to address the problem that needs to be solved, as there are many and they are easily and often conflated. Are we trying to reduce the usage of fossil fuels? Are we trying to lower the volume of material going to landfills? Are we trying to reduce the persistence of disposed nonwoven articles in their end-of-life environment? Are we trying to reduce the presence of plastic litter in the ocean? Microbeads in the ocean? Litter on beaches? There is the potential to conflate each of these separate "issues" into a single solution, but each actually requires a unique solution. So we need to be clear on the definition of the problems/issues our industry can positively influence.

There are many benefits associated with plastic materials and many industries involved in the issue, chief among them being the packaging industry. While the predominant materials used in nonwovens are plastics, the nonwoven industry is a minor consumer of plastics at about 0.01% of the total; 99.99% of plastic is NOT nonwoven related. So we will not be the leading voice on this issue, but we do need to develop a responsible voice. Our Wipes and Hygiene products solve problems and increase the quality of life for babies, families, the elderly and more. We need to be prepared to responsibly address concerns about single-use disposable wipes, diapers, femcare and incontinence products made primarily of *plastic* materials, a fact not readily apparent to the consumer or many NGO's right now, but a fact that will inevitably become well known. The unintended consequences of blanket "bans" on single use disposable products, as is on the table today in California, would be devastating to our industry as we know it today.





We believe material science and process improvements will play a major role in advancing progress toward the Circular Economy principles of reduce/reuse/recycle/repurpose instead of merely "throwing away" materials. Material science is advancing rapidly in the development of techniques to extract plastic materials in a circular manner through molecular separation processes, therefore reducing the reliance on new petroleum-based raw materials. And some research with other biobased polymers is promising.

Here are some key principles we should discuss as representing our common interests in the nonwoven/engineered materials industry:

- We agree that there is a problem with too much "plastic" in our waste environment and in places waste should not be.
- Our industry can do better through recycling advancements, broader recovery and reuse of materials in the waste stream, and in using material science to reduce our reliance on using oil for new plastic materials and in making some more readily biodegradable.
- There are many benefits associated with plastic materials in products we depend on, like, cleaning our air and water and in providing convenience and efficacy in personal hygiene.
- There is also a lot of confusing misinformation and potential for unintended consequences regarding this multi-faceted issue.
- So, let's better define the problems we really want to address, what materials are the offenders, and what the appropriate balance is between the benefits provided by such materials and the environmental costs of their use and disposal.



