

A **Multi-Clean** White Paper

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Multi-Clean[®]
Your Guide To Clean

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Sus-tain-able

of, relating to, or being a method of harvesting or using a resource that is not depleted or permanently damaged (according to Webster)

using methods, systems, and materials that won't deplete resources or harm natural cycles (according to Rosenbaum, 1993).



The Next Level: Sustainable Cleaning *Green Products and Sustainability*

Many public and private organizations are looking for ways to become more sustainable in their daily functions. One of the simplest and least costly ways is to look at the cleaning process. Sustainable “green” cleaning practices look at the products and the process used in cleaning.

This white paper discusses sustainable cleaning practices and examines some of the differences in cleaning products that are considered green compared to those made from sustainable resources.

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Introduction

More and more companies and organizations are looking for ways to be good environmental stewards by adopting sustainable business practices. The most publicized practices usually often involve design and /or construction modifications that require significant capitol outlays. Often overlooked, facility cleaning and the products used have an environmental impact and a human health impact as well. It does not require huge capitol outlays and actually provides one of the best returns on

investment available for those that want to incorporate sustainability into their operations.

Problem Statement

It is well known that the world has a limited supply of petroleum. Petroleum is the feedstock for a broad array of chemicals, packaging and plastic products that we all use on a daily basis. It took millions of years to produce petroleum, yet we are exhausting the supplies making products derived from petroleum un-sustainable. Agricultural resources are becoming a recognized feedstock for chemical raw materials used to make cleaning products. These sustainable ingredients offer similar performance and aesthetic properties compared to petroleum derived raw materials at a competitive price.

The new economic imperative is to find ways to be more globally competitive and at the same time operate in a more sustainable manner. Fortunately, there are many areas where sustainability and competitiveness intersect.

Sustainable vs. Green

Sometimes the two words are used interchangeably. In the cleaning world, sustainable and green can often be used when referring to the cleaning process. However, when it comes to cleaning products, there are differences that need to be clarified.

Sustainable cleaning products have a majority of ingredients derived from agricultural sources. For green products, no distinction is made between petroleum or plant derived ingredients. A product may therefore be green, but not sustainable.

Green (including green certified products) products derived from petroleum are not bad, in that they can be safe for handling and can be designed to rapidly degrade in the environment.

The New Green Economy

It doesn't matter what business, institution or service organization you are involved with, sustainable practices incorporated into your organizations activities goes beyond social responsibility. Practicing sustainability can have a positive impact on the bottom line. An organization that focus' on sustainable practices is one that has found ways to reduce waste, improve efficiencies, and has reduced impacts on the environment.

The three P's of sustainable practices suggest that People, the Planet, and Profits should be impacted. Applied to cleaning these benefits are as follows:

People: Creating a cleaner and healthier environment.

Planet: Reducing the environmental impact on air, ground, and water.

Profits: Reducing waste and increasing efficiency to help the bottom line.

Sustainability: The Big Picture

When it comes to products, too many manufacturers address only what's in the bottle. Sustainability often means looking beyond ingredients. Concentrated products that are diluted onsite by the users are far more cost effective. Even more importantly, transportation costs and fossil fuel consumption involved in transporting these products needs to be considered.

Bio-based products are derived, in whole or in significant part, from biological products or renewable domestic agricultural materials (including plant, animal, and marine) or forestry materials.

A watered down product means transporting more volume, which in turn means more fossil fuel consumption. Using water for dilution at the source is a sustainable practice regardless of the make up of the cleaning product itself.

Another part of being sustainable is looking at packaging. Although recyclable packaging is good, sustainable practices suggest looking at reduced packaging is far more important. For example, many commercial cleaning products are delivered in plastic pails. Alternative packaging, such as Bag-in-box packaging results in a greater than 90% reduction in plastic. The plastic used to give the container rigidity is replaced by sustainable cardboard.



Bio-Based: Supporting Agriculture

The term "Bio-Based" has been coined to refer to products that are based completely or partially on plant by-products, biological or renewable agricultural materials.

The United States Department of Agriculture is promoting this concept as a way to benefit local agriculture and be green at the same time. The **USDA bio-preferred** program lists a variety of products (including cleaning products) that are derived from Ag resources.

Chances are you won't see any manufacturers of cleaning products, green or otherwise,

promoting products that support the petroleum industry. However, expect to

see a growing list of companies that market products derived from locally grown agricultural feed stocks.

To participate in the USDA Bio-Preferred program, a product must contain a minimum amount of bio-based content. If the criteria are met, the product is listed on the Bio-Preferred website. Usually, manufacturers will identify the percentage of bio-based material in their products as a marketing tool.



The Products Must Work!

A sustainable or green product that does not work or requires more to do the job is really not sustainable at all. To truly be considered sustainable, the products must work equal or better compared to traditional products. Furthermore, the products must be cost competitive with traditional products. If the products are more expensive to use, inefficiencies are created that again violate the spirit of sustainability.

The new bio-based raw materials function with similar properties than those derived from petroleum. The petroleum or agricultural feed stocks are chemically modified to produce the desired properties. The big difference is “where” the feedstock comes from, a sustainable agricultural resource, or an un-sustainable petroleum resource.

Conclusion

We live in a world where a great number of products we use on a daily basis are derived from petroleum. As the world looks for alternatives to this unsustainable resource, turning to agricultural resources is starting to go from a mere idea to actual practice.

Sustainable resources are proving to be viable and cost effective. Best of all, reducing our dependence on foreign resources helps benefit our local economy and reduces the volatility associated with supply shortages and political instability. Purchasing bio-based products helps achieve sustainability goals while helping our economy at the same time.

Resources:

Click on the links below the descriptions to go to the websites.

USDA Bio-Preferred Website
www.biopreferred.gov

USDA List of Bio-Preferred Products
<http://www.biopreferred.gov/CatalogCo>

Multi-Clean Bio-Base Web Page
www.multi-clean.com/BioBase2.html



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