

HOW TO MAKE THE RIGHT CHOICE ON GOING GREEN

Overview



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A general misconception about green cleaning products is that they are expensive and do not perform as well as traditional cleaning products.

Are you looking for a cost-effective solution to implement a safer and healthier maintenance program for your business? Here are some tips and guidelines to direct you in making the right choice for your company.

Many products claim that they are “green.” But what does being green really mean? For example, are the products that you are currently using really biodegradable? Do they meet standards such as the Green Seal and the Environmental Choice Certification? Do they respect the health and safety regulations of WHMIS? Most importantly, are the cleaning products that you are using sustainable?

There is a lot of useful information and documentation available. Take the time to do your homework. It is your right but also your duty to know what raw materials is going into the products that you are using. These resources will help you to know what to look for when choosing cleaning products and suppliers. They will guide you in asking the right questions to your supplier. Since the industry does not always provide the necessary information, it is important to be educated about MSDS and WHMIS regulations and standards.

▪ ***Green Cleaning – The Misconception***

A general misconception about green cleaning products is that they are expensive and do not perform as well as traditional cleaning products. When the first generation of green cleaning products came out, this perception may have been valid. Today however, with the emergence of government mandates and regulatory guidelines, green cleaning has become a real and viable solution for companies who are seeking to implement a safer and healthier maintenance program.

▪ ***What Does “Sustainable” Mean?***

Trends come and go in any industry. You may be wondering how long this trend of green cleaning will last. Current changes in the industry, government regulations, changes in the environment and growing concerns with health and safety all support the fact that green cleaning is no longer a trend but a reality. The industry is now providing more information in order to help you, the end user, make smart choices and also for you to help disseminate the information provided. You may have heard various industry leaders use the word “sustainable” when describing their products. Indeed, “sustainable” seems to be the latest industry buzzword. Even the Canadian government has a department called **Sustainable** Development Information System [(SDInfo) – (http://www.sdinfo.gc.ca/main_e.cfm)]. You may wonder what all this means and what the relevance is to your business.

According to Avmor*, sustainability is about maintaining or improving the health of the built, natural, social and economic environment, without interfering with the ability of future generations to do the same. Therefore, a sustainable cleaning product is one that specifically meets the needs of **Performance, People, Planet and Price** (the **4-Ps**).



A green cleaning product should brighten and deodorize quickly and perform as well or better than leading national brands of conventional products.

Look for a company willing to provide the necessary training and education to ensure the highest level of product usage safety.

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Performance

The bottom line is that the product must do the job. The quality and performance of the product should result in better time management for your company and for your staff. A green cleaning product should brighten and deodorize quickly and perform as well or better than leading national brands of conventional products.

It should provide mild or fragrance-free day cleaning near sensitive populations. The product should not be harsh, contain damaging chemicals that etch or dull floor finishes or leave residues, streaks or unpleasant odours.

People

Green cleaning products should safeguard the health and productivity of employees by providing the highest international and domestic standards for health and safety. Look for a company willing to provide the necessary training and education to ensure the highest level of product usage safety.

Asthma is currently the most common chronic respiratory disease in children and accounts for ¼ of school absenteeism. With 3 million Canadians diagnosed with asthma, a figure which is continually rising [source: *Asthma Society of Canada*], it is necessary to choose products which are formulated to reduce the exposure of harmful gases and toxic solvents. In addition to reducing potential asthma attacks, reducing janitorial complaints and staff absenteeism, this decision will generally help to significantly better Indoor Air Quality (IAQ). The workers' morale and productivity will correspondingly improve.

Amid growing concerns for the health and safety of people living and working within conventional cleaning areas and concerns about long-term damage to the natural and built environments, it is important to understand why green cleaning is the right choice for your company.

▪ *Understanding MSDS, RTUMSDS and WHMIS*

As a consumer, it is your right to know what raw materials are in the products that you are using and whether these are hazardous for your health and safety. This information can be found in the *Material Safety Data Sheet* (MSDS). Please keep in mind however, that the MSDS may not reveal the full picture and some suppliers may not fully disclose all relevant information. Some suppliers may contradict themselves on the MSDS when compared to the labeling of their products. Therefore it is important to carefully examine both the product labels and the MSDS in order to check for inconsistencies. Below is an example of Avmor's MSDS sheet (see diagram).



Material Safety Data Sheet

WHMIS (Pictograms)	WHMIS (Classification)	Protective Clothing
	Class D-2B: Material causing other toxic effects (TOXIC).	

ECOPURE EPA Neutral pH Multi-Use Cleaner Degreaser	
Supplier: AVMOR LTD 250 Michener L4R 4G6 Tel: (416) 629-8074 www.ecopure.ca	MSDS: All ingredients are listed. GHS: Not applicable
Replaces: Not available	Product Number: CAN/US: 1413-09-0000

Section II. Composition and Information on Ingredients				
			Exposure Limits	
Name	CAS #	% by Weight	TLV/PEL	LC50/LDs
Alcohols, C9-11 ethoxylate	68439-46-3	5 - 10	Not available.	ORAL (LD50): Acute: 1400 mg/kg [Rat]

Section III. Hazards Identification.	
Potential Acute Health Effects	Irritating to eyes. Incidental skin contact is not expected to cause any significant irritation. If ingested might cause discomfort, diarrhea and nausea.
Potential Chronic Health Effects	No ingredient in this product is currently listed as carcinogens by IARC, NTP or OSHA. Prolonged contact without washing may cause skin rash or redness.

Eye Contact	In case of contact with eyes, rinse immediately with plenty of water. If irritation persists, get medical attention.
Skin Contact	Cleanly and thoroughly wash the contaminated skin with running water and a mild soap. If irritation persists, seek medical attention.
Hazardous Skin Contact	Not applicable

Continued on Next Page

ECOPURE EPA Neutral pH Multi-Use Cleaner Degreaser		Page Number: 2
Inhalation	Allow to rest in a well-ventilated area. If discomfort persists seek medical attention.	
Hazardous Inhalation	Not applicable	
Ingestion	DO NOT induce vomiting. Have conscious person drink several glasses of water. Seek medical attention. NEVER give an unconscious person anything to ingest.	
Hazardous Ingestion	Not applicable	

Section V. Fire and Explosion Data	
The Product is:	Non-hazardous
Auto-Ignition Temperature	Not applicable
Flash Point	Not applicable
Hazardous Limits	Not applicable
Products of Combustion	Not applicable
Fire Hazards in Presence of Various Substances	Not applicable
Explosion Hazards in Presence of Various Substances	None of explosion of the product. Not explosive
Fire Fighting Media and Instructions	Use dry chemical or CO ₂ .
Special Remarks on Fire Hazards	Not applicable
Special Remarks on Explosion Hazards	Not applicable

Section VI. Accidental Release Measures	
Small Spill	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.

Section VII. Handling and Storage	
Precautions	Avoid contact with skin and eyes. In case of contact with eyes, rinse with plenty of water in case of contact, flush skin with plenty of water.
Storage	Store in a cool, well-ventilated area away from incompatible materials.

Continued on Next Page

ECOPURE EPA Neutral pH Multi-Use Cleaner Degreaser		Page Number: 3
Section VIII. Exposure Controls/Personal Protection		
Engineering Controls	No special measures required for normal use conditions.	
Personal Protection	Safety eyewear should be used when there is a likelihood of exposure. Gloves (impervious) are recommended for prolonged contact with bulk quantities.	
Personal Protection in Case of a Large Spill	Wear suitable protective clothing, gloves and eye/face protection.	
Exposure Limits	Not available.	

Boiling Point	The lowest known value is 103°C (212°F) (Water). Weighted average: 96.72°C (227.9°F)
Melting Point	Weighted average: 0.67°C (33.6°F)
Critical Temperature	Not available
Specific Gravity	1 to 1.02 (Water = 1)
Vapor Pressure	Not applicable
Vapor Density	Weighted average: 1.01 (Air = 1)
Volatility	Not available
Odor Threshold	Not available
Evaporation rate	Not available
Viscosity	Not available
Water/Oil Misc. Coeff.	The product is much more soluble in water.
Solubility in Water	Not available
Dispersion Properties	See solubility in water.
Stability	Easily soluble in water.

Section X. Stability and Reactivity Data	
Stability	The product is stable.
Instability Temperature	Keep from freezing.
Conditions of Instability	Not applicable
Incompatibility with various substances	Incompatible with strong oxidizing materials.
Corrosivity	Not considered to be corrosive.
Special Remarks on Reactivity	No additional information.
Special Remarks on Corrosivity	No additional information.

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Since the sheet may contain an overwhelming amount of information, let us focus in on some key elements.

Section II provides a list of ingredients and informs you about whether the ingredients are hazardous. Ingredients listed in this section must, by law, be *Workplace Hazardous Materials Information System* (WHMIS) classified. WHMIS is a Canada-wide system in which suppliers, employers and workers each have their own responsibilities to promote access to information on hazardous materials. Any person supplying or using controlled products must comply with it. Governed by federal and provincial laws and regulations, the overall objective of WHMIS is the protection of the health and safety of workers in the workplace.



For more information, you may consult:
www.reptox.csst.qc.ca/Documents/SIMDUT/IntroAng/Htm/Introang.htm.
 Take the time to understand what the symbols and classification mean.

Section III identifies the hazards of the product, for example whether a product may cause skin irritation.

Section VII and **Section VIII** are very important. They provide you with instructions regarding the proper handling and storage of the products, how to protect yourself from exposure, and the type of measures and clothing to use for personal protection.

Let us also examine the *Ready to Use Material Safety Data Sheet (RTU MSDS)*. The difference between the RTU MSDS and the regular MSDS, is that the RTU MSDS represents the product after it has been diluted. Below is a diagram showing the key elements of a RTU MSDS. It is in the RTU MSDS we want to see if any raw materials are included in the hazardous section and to see if the product is WHMIS controlled. This is a very important gage for us to help us determine how sustainable the product really is.

Material Safety Data Sheet

WHMIS (Pictograms) 	WHMIS (Classification) Not a WHMIS controlled material.	Protective Clothing
Product Name Ecopure EP64 Trade Name Neutral pH Multi-Use Cleaner Degreaser RTU 1:128	Supplier AVMOR LTD 955 Montclair Laval (QC) TEL: 1-800-387-8074	UN NA DOT Not applicable ADR Not applicable

Section II. Composition and Information on Ingredients				
			Exposure Limits	
Name	CAS #	% by Weight	TLV/PEL	LC ₅₀ /LD ₅₀
No hazardous ingredient.				

Section III. Hazards Identification.	
Potential Acute Health Effects	Incidental skin or eyes contact is not expected to cause any significant irritation.
Potential Chronic Health Effects	No ingredient in this product is currently listed as carcinogens by IARC, NTP or OSHA. Prolonged contact without washing may cause skin rash or redness.
First Aid	Wash with water for a few minutes if contact occurs. Remove a contact lens if contact occurs.
First Aid - Eyes	Rinse and thoroughly wash the contaminated skin with soap and water for at least 15 minutes. If irritation develops, seek medical attention.
First Aid - Skin Contact	Not applicable.
First Aid - Inhalation	Allow to rest in a well-ventilated area. If discomfort persists seek medical attention.
Continued on Next Page	

ECOPURE EP64		Page Number: 2
Neutral pH Multi-Use Cleaner Degreaser RTU 1:128		
Hazardous Ingredients	Not applicable.	
Registries	DOT NOT induce vomiting. Have conscious person drink several glasses of water. Seek medical attention. NEVER give an unconscious person anything to ingest.	
Hazardous Registries	Not applicable.	

Section V. Fire and Explosion Data	
The Product is:	Non-Flammable
Auto-Ignition Temperature	Not applicable.
Flash Point	Not applicable.
Flammable Limits	Not applicable.
Products of Combustion	Not applicable.
Fire Hazards in Presence of Various Substances	Not applicable.
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product. Not explosive.
Fire Fighting Media and Instructions	Use dry chemical or CO ₂ .
Special Remarks on Fire Hazards	Not applicable.
Special Remarks on Explosion Hazards	Not applicable.

Section VII. Handling and Storage	
Precautions	Avoid contact with skin and eyes.
Storage	Keep from freezing.

Section VIII. Exposure Controls/Personal Protection	
Engineering Controls	No special measures required for normal use conditions.
Personal Protection	No special protection is required.
Personal Protection in Case of a Large Spill	No special protection is required.
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Chemicals used in many conventional cleaning products are often as harmful as the contaminants they remove.

Planet

Choose green products that help protect nature. While conventional cleaning products effectively remove soil, they often contain harsh chemicals. Green cleaning products on the other hand, eliminate the need for harsh and harmful cleansing agents without sacrificing high performance cleaning. Chemicals used in many conventional cleaning products are often as harmful as the contaminants they remove. Furthermore, the contaminants and chemical mixture frequently ends up in treatments plants and, in many cases, is released untreated back into the environment. Cleaning products that you select for use in your facilities should be based on sound science, independently tested and third-party certified to comply with the strictest environmental, health and safety standards. They should contain ready biodegradable raw materials in accordance with Health and Safety Regulations. You should look for green cleaning products that contain no carcinogens, no Alkyl, Octyl, Nonyl Phenol Ethoxylates (APE's, OPE's, NPE's), have low or no VOC's, or phosphates, no zinc, and no dibutyl phthalate. In addition, it is important to examine the concentration, by weight, of raw ingredients in the product. Scorecard.org is a useful tool in this respect. Also verify whether the products you use have the various Green Seal, Environmental Choice Program and other standard industry certifications. Since the industry does not always provide the necessary information, it is important to be educated about MSDS and WHMIS regulations and standards. For example, Avmor's EP64 and EP65 cleaners have earned the Canadian Food Inspection Agency Certification, Environmental Choice Certification, Green Seal Certification, Avmor Green Standard Approval, and the U.S. EPA Design for the Environment DfE Authorization. What qualifying criteria do you use when choosing green cleaning products for your organization?

Properly selected cleaning systems can result in tremendous SKU reduction.

Price

As a consumer, you obviously want products that are competitively priced yet perform just as well or better than leading national brands. Products that clean effectively in cold water will result in significant energy cost savings. Properly selected cleaning systems can result in tremendous SKU reduction. Many establishments use in excess of 20 different cleaning chemicals when superior results can be obtained with a program that includes only 3 or 4 products. This reduction in SKUs simplifies building operations and inventory, eliminates dangerous chemical stockpiles reduces the cost of cleaning supplies, lowers water consumption, cleaning times, waste removal and disposal costs. Verify that your supplier can offer you and your staff world-class customer service and high performance training. Select a supplier that is willing to take the time to train your staff and is available to help you, who can provide you with a personalized on-site demo and who can respond to customer inquiries within 24-hours.



▪ **Dilution Control**

There is the misconception that pouring more will result in increased effectiveness. This is not necessarily the case.

Dilution Control or Chemical Management systems lend themselves to sustainable cleaning programs and more specifically to the 4 Ps mentioned above. The traditional method of cleaning is the “pour into the bucket” approach. This method uses manual measurements, rendering the cleaning solution inaccurate. In most cases, through no fault of their own, workers tend to pour more than needed, thereby resulting in product waste. There is the misconception that pouring more will result in increased effectiveness. This is not necessarily the case. Too much chemical can leave streaks, and insufficient water could cause damage to your surfaces. This manual method is just that – Manual. Skin contact with the product may be dangerous to the health and safety of your workers. Occupational injuries and asthma related to cleaning are increasing at an alarming rate. According to statistics, 6 percent of cleaning professionals are injured by cleaning product every year and 20 percent of eye and skin burns are caused by chemicals. [Source: *How to Select and Use Safe Janitorial Chemicals, EPA Report, Pollution Prevention Project, December 1999, Page 4*]. Many people also experience headaches, nausea, or dizziness when they come into contact with harmful gases produced by the chemicals contained in conventional cleaning products.

By embracing the concept of a cleaner and more sustainable cleaning program for your business, you will be choosing products that will continue to make you a responsible leader in your community...

For these reasons, using a dilution control system is advantageous to your workers, your business, and the planet. Firstly, it will benefit your workers because it prevents chemical contact with the skin. In addition, by providing accurate dilutions, the cleaning solution will perform at its optimal level. The system reduces setup and mixing time and fewer products is wasted. A dilution control system will help reduce costs even more effectively when used with a product that has a higher concentration. Higher concentration results in less waste generated in the landfills. For example, Avmor’s Ecopure EP64 Neutral All Purpose Cleaner has a dilution ratio of 1:256 vs. some other competing products with less concentrated formulas. A dilution control system is a cost-effective and safer solution for your company’s cleaning needs.

Whatever products you choose, once you become better informed; your choice will be worry-free. By embracing the concept of a cleaner and more sustainable cleaning program for your business, you will be choosing products that will continue to make you a responsible leader in your community while providing you with a competitive advantage in the marketplace.

Avmor - an industry leader in the development and manufacture of professional cleaning products for 55 years.*

For more information, contact Avmor at info@avmor.com, or call 1 800 387-8074 or visit the website at www.ecopure.ca or www.avmor.com.

