

3 Finding Safer Products

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In This Section - Safe products are available for most janitorial tasks. There are a few exceptions, such as disinfectants and floor finish stripper, where high strength / high hazard chemicals are needed to do the job.

In this part of the workshop we will introduce you to several suppliers of safer and environmentally preferable products. Representatives of these suppliers are here today to answer any questions that you may have.

Looking Ahead - After lunch we will give you a chance to try some of these products for yourself, and will also talk about ways to safely manage whatever janitorial chemicals you are using.

3.1 Suppliers We Contacted

How did we find suppliers of safe and environmentally preferable products?

We Learned From Other Projects

We first contacted purchasing agents and technical staff of the City of Santa Monica, the State of Minnesota, and the State of Massachusetts. These agencies provided the names of several suppliers from whom they purchase janitorial chemicals. Each agency reviewed product MSDSs and other technical information, and then field-tested several different products from these suppliers before placing their purchase orders.

Visit the Commentaries page of our project web site to obtain additional information about these agencies and their environmentally preferable purchasing efforts.

We Researched Products Ourselves

Next, we surveyed firms in the Bay Area and contacted internet discussion groups to learn of other suppliers that offer environmentally preferable products. We contacted each of these firms, obtained info on various products, and evaluated them for health and safety issues.

The following sheet lists the suppliers and products that made it through product trials with us. A few words of caution: This list is incomplete. There are other firms that offer environmentally preferable products, and the listed firms offer other products that we were unable to test in the time available to us.

"Mention of trade names, products or services does not convey, and should not be interpreted as conveying, official approval, endorsement or recommendation by US EPA or any of the other sponsoring organizations."

Environmentally Preferable Janitorial Products

Vendor and Product List



The following products have been reviewed for safe chemical content based on toxicology data and information from the material safety data sheet. These products have also proven effective in on-the-job trials by numerous cleaning professionals. This is not an all inclusive list of vendors who offer environmentally preferable products, nor does it include all of the products manufactured by the vendors shown. If you are interested in testing any of these products, use the contact information provided and request a sample directly from the supplier.

| | |
|------------------|--|
| Company: | The Clean Environment |
| Contacts: | Deb Moulton (Orders) Don Eby (Technical) |
| Phone: | 800-266-2353 |
| Web Page: | www.greencities.net |
| <hr/> | |
| Product: | All Purpose Cleaner Product Number: N-1 |
| Product: | Basin, Tub and Tile Cleaner Product Number: N-7 |
| Product: | Clinging Toilet Bowl Cleaner Product Number: N-8 |
| Product: | Furniture Polish and Protector Product Number: N-11 |
| Product: | Glass and Hard Surface Cleaner Product Number: N-13 |
| Product: | Heavy Duty Degreaser/Cleaner Product Number: N-14 |
| Product: | Cycle-Graffiti Remover Product Number: C-54 |

| | |
|------------------|---|
| Company: | Ecolink / Grean Leaf Products |
| Contacts: | Jason Nedelman (Orders) Bill Green (Technical) |
| Phone: | (949) 248-5323 (800) 886-7889 |
| Web Page: | www.ecolink.com |
| <hr/> | |
| Product: | Glass and Hard Surface Cleaner |
| Product: | Bath and Tile Cleaner |

| | |
|-----------------|---|
| Company: | Naturally Yours |
| Contact: | Liz Kane |
| Phone: | 417-889-3995 |
| <hr/> | |
| Product: | All Purpose Cleaner Product Number: NY2 |
| Product: | Cleaner Degreaser Product Number: NY3 |
| Product: | Basin, Tub and Tile Cleaner Product Number: NY4 |
| Product: | Glass and Window Cleaner Product Number: NY6 |
| Product: | Clinging Toilet Bowl Cleaner Product Number: NY7 |

| | |
|------------------|--|
| Company: | Rochester Midland |
| Contact: | Stephen Ashkin |
| Phone: | 716-336-2308 |
| Web Page: | |
| <hr/> | |
| Product: | Enviro-Care All Purpose Cleaner |
| Product: | Enviro-Care Tough Job Cleaner |
| Product: | Enviro-Care Neutral Disinfectant |
| Product: | Enviro-Care Washroom and Fixture Cleaner |

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3.2 Screening Questions We Used

How did we decide which products to test in our field trials? We used some of the criteria discussed earlier, reviewed MSDSs, and contacted the suppliers with questions about the ingredients that they use in their products.

| <u>Health & Safety Impacts</u> | <u>Did we use this question?</u> |
|--|----------------------------------|
| Carcinogenic / Prop. 65 | Yes |
| Reproductive Hazard - Mutagen | Yes |
| Reproductive Hazard - Teratogen | Yes |
| Endocrine Modifier | Yes |
| Corrosivity / pH | Yes |
| Flammability / Flash Point | Yes |
| Reactivity | Yes |
| Eye Irritant | Yes |
| Skin Irritant | Yes |
| Inhalation Irritant | Yes |
| Ease of Skin Absorption | Yes |
| Ease Of Inhalation / Vapor Pressure | Yes |
| Overall Toxicity (LD50) | Yes |
| <u>Environmental Impacts</u> | |
| Ozone Depleting Substance | Yes |
| Global Warming Substance | Yes |
| Hazardous Waste | Yes |
| Stormwater Pollutant | No |
| Sanitary Sewer Pollutant | Yes |
| Persistence / Biodegradability / Bioaccum. | Yes |
| Indoor Air Quality | Yes |
| Phosphates | No |
| Volatile Organic Compounds | Yes |
| <u>Other Impacts</u> | |
| Has Added Fragrance | No |
| Has Added Dye | No |
| Packaged As Bulk Concentrate / Mixing System | No |
| Safe Container | No |
| Refillable Container | No |
| Container Made Of Recycled Material | No |
| Non-Aerosol Container | No |

Source: <http://www.westp2net.org/Janitorial/jp4.htm>

3.3 Products Tests We Did

We simplified our trials by limiting tests to the following 7 product types:

- General Purpose Cleaner
- Toilet Bowl Cleaner
- Bath and Tile Cleaner
- Window / Glass Cleaner
- Graffiti Remover
- Metal Polish
- Disinfectant

We contacted our list of suppliers and invited them to submit any safer and environmentally preferable products that they offer for the above cleaning functions. Specifically, they were asked to submit a product sample, product MSDS, product instruction sheet and a bottle label for each product.

First, we reviewed product literature and eliminated products based on toxicology information. It is important to note that many suppliers have "green" products that will not meet our suggested standards. For example, one vendor submitted an entire line of products that did not pass this first step.

Then we gave the products to professional cleaning crews to evaluate cleaning effectiveness. Three cleaning crews volunteered to assist us with our hands-on product evaluations:

- City of San José Main Library crew (5 members)
- City of San José Maintenance Yard crew (2 members); and
- County of Santa Clara Hall of Justice crew (4 members).

Details of this process are on the next pages.

3.4 How To Evaluate Sample Products

Here are lessons we learned about conducting product trials.

Select the Right Test Crew - When selecting where to test new products it is important to choose a crew with consistent work attendance, with experienced/senior employees, and with focused cleaning responsibilities. The San Jose City Main Library Crew was helpful because one of their regular job functions was to be the test crew for all new products for the City. The County Hall of Justice team was helpful because they had a well respected senior staff member.

Establish Crew Buy-In and Involvement - Before testing any products, have a team meeting with the test crew and emphasize why you are testing alternative products. Our testing was successful in large part because each test crew knew that their upper management was looking for safer alternatives to current products. They also knew they were being asked to participate in a way that would directly influence the decision.

The following are examples of questions you can ask to help find ways to effectively involve the crew in the test process. Some of these questions are simple, but their answers can provide you with a lot of valuable information.

- What products are you currently using? Answering this early on will help determine exactly what sample replacement products to offer for trial.
- How much product are you using on average? Cleaning crews vary in the amount of product used, so you need to know how much product you need to give your test crew.

Example: Each member of the County of Santa Clara Hall of Justice cleaning crew uses a 32 oz bottle of glass cleaner each day, where it takes a month for the entire San Jose City Main Library crew to empty a 32 oz bottle of glass cleaner. This information will determine how much product to give the tester so they may conduct a fair evaluation. The County crew received a 32-oz bottle per product / per person while the 5-person City crew shared a 32-oz bottle.

- What is your daily cleaning routine? Answering this question will be helpful in establishing when a change to the routine is needed to adopt a product.

Example: One crew member was understandably resistant to testing any products that would take more time for cleaning. She complained that she hardly had time to complete her current cleaning tasks.

We verbally walked through her daily routine and discovered that she could spray the surface cleaner in the bathroom, spend 10 minutes emptying trash cans on her floor, and then return to wipe up the cleaner (rather than spraying and waiting idly while the product worked).

- What are your toughest cleaning challenges? These are the people who will be using the products you change to, so their buy-in is essential. If you can find a safer product to tackle their toughest problem that buy in will be accelerated.

Example: One crew member complained about the oily residue left on metal from their current metal cleaner. His evaluation for one of the alternatives read "This is the best product I've ever used on stainless. It works super in the elevators." He was sure to share that experience with the rest of his crew and his buy-in was affirmed.

Introduce Your Test Phase Timeline & Hold Regular Meetings - Share with the test crew your suggested timeline for the hands-on test phase. Include plans for reviewing their test evaluations and discussing problems/questions that arise.

Our testing process included a weekly meeting where new products were given to the test crew and a discussion was held about the previous weeks' successes and failures. This discussion sometimes consisted of identifying barriers to the test process, and other times consisted of sharing mutual support of successful products.

Establishing the timeline provides a necessary structure for you and the test crew to work within, and can reinforce the spirit of a team collaborating on a project.

Give the Test Crew Products and Instructions - We determined that because our test phase involved numerous products for one cleaning function it was easier to test products according to cleaning function rather than according to vendor. For example, the cleaning crew first tested all glass cleaners, then all general purpose cleaners, etc.

Along with the product samples themselves, the crews were given a copy of each product MSDS and instruction sheet for reference. In addition each member of the crew received an evaluation form to give feedback on each product tested. A sample evaluation form is on the following page.

Do Hands-On Testing Yourself - Whenever possible, join the test crew for some of their cleaning. Nothing emphasizes the importance of the project more than getting in the dirt yourself and testing the products with them.

PRODUCT EVALUATION

Environmentally Preferable Cleaning Product Project

DIRECTIONS

Please complete this form while testing each product. Highlight or fill in the requested information. If you have questions, feel free to ask one of the facilitators.

FACILITY INFORMATION

Your name _____ Product tested _____

| | | | | |
|---|--|----------------------------|---|--|
| 1 | How well did this product clean? | Well | Average | Poorly |
| 2 | How hard did you have to work to clean with the product? | Easy | Hard | Extremely Hard |
| 3 | Did you have to clean with this product more often than expected? | Less than expected | As expected | More than expected |
| 4 | Did you have to use more of this product than was recommended for the job? | Used less than recommended | Used recommended amount | Used much more than recommended |
| 5 | How does this product smell? | Nice | Okay | Not Okay |
| 6 | What do building occupants think of the product? | Pleased with product | No comments or neutral comments | Dissatisfied |
| 7 | Did you experience any health problems from using the product? | No negative reactions | Minor problems such as: sneezing, temporary headaches, mild skin/eye irritation | More significant problems: (please describe) |
| 8 | Would you recommend this product to others? | Yes | Maybe | No |

COMMENTS _____

3.5 Overcoming Barriers To New Products

During the product test phase we discovered there were a number of barriers to overcome, but often the solutions were simple. Foreseeing these barriers can make a big difference in the success of your own tests of new products.

Examples:

| Barrier | Solution |
|--|---|
| <p>One test crew member down-rated all of the window cleaners because she was using them as given to her (spraying it on from a 32 oz. spray bottle and wiping with a paper towel), instead of applying them as she did her regular cleaner (using a sponge, bucket and squeegee).</p> | <p>The solution to this problem was to provide her with small amounts of concentrated product samples so that she could dilute it in a bucket and apply it with a sponge.</p> <p>After this adjustment, her evaluations improved for most of the test products.</p> |
| <p>A common response to alternative products is "if it doesn't smell like bleach it doesn't clean", or "if it's environmental it must be weak".</p> | <p>The solution to this psychological barrier is hands-on training.</p> <p>Clean along side the custodian and demonstrate that the products actually do work, and work very well.</p> |

At your table try to identify barriers you may come up against when introducing new products within your organization and consider possible solutions.

| Barrier | Your Solution |
|----------------|----------------------|
| | |
| | |
| | |
| | |
| | |
| | |

3.6 Hands-On Product Demonstrations

Each table will be given samples of products, together with evaluation sheets to use in noting your comments. Start by reading the material safety data sheet and product instruction sheet for each of the products. Then put on your gloves and goggles, and try out the samples.

Venture into the bathrooms with toilet, bath and tile cleaners. Try shining up the lobby windows with glass cleaner. Scrub the walls, tables and doors with general purpose cleaner.

Work together or individually as you wish.

Fill in a joint product evaluation sheet for each product, and be prepared to share your results with the workshop when you are done.

Go to it!