Investigate Household Product Safety

As people become more Earth-conscious in their lifestyles –incorporating recycling into their daily routines, for example, or using less water for showers –children and teens are picking up on the message. And while you may try and shop for organic produce or carpool once in a while, chances are you have some very eco-unfriendly products lurking in your bathroom and kitchen cabinets.

In this activity, your teen will do some snooping to investigate just what's in those cleaning products, and learn how to use Material Safety Data Sheets to identify possible hazards in the home.

**What You Need:**

* Household products (cleaning and bathing products are a great starting place)
* Computer with Internet connection
* Pen and paper

**What You Do:**

1. Have your child pick out several household products she uses everyday. Possible items could include hair products, deodorant, cleaning products and laundry detergent.
2. Have her consult the list of ingredients. She has probably never paused to look at what goes into the materials that she uses every day (and chances are, neither have you!). Have her make a list of the different chemicals she finds listed under each product name, particularly the “active ingredient.”
3. There are many online sites which detail the Material Safety Data Sheets (MSDSs) for a given product or chemical. Depending on the database used, your teen will either find a sheet for the specific product or will need to search for individual chemicals in the product. This [product list](http://cartwright.chem.ox.ac.uk/hsci/chemicals/hsci_chemicals_list.html) is particularly easy to navigate, and it makes for a good place to start.
4. Read through the MSDS for each chemical. These papers tend to be cryptic and take a little bit of getting used to when reading, but all MSDSs provide the same types of information including:  Product name; name, address, and phone number of the company that manufactures the product; ingredients; acceptable exposure limits to the  chemicals (usually listed as “OSHA PEL” or “ACGIH TLV” depending on governing agency limits used); hazard information; acute and chronic symptoms, carcinogenicity, and effects of overexposure; first aid measures; release measures; fire fighting measures; handling and storage information; physical and chemical properties; stability and reactivity data; and disposal methods. Here's a handy [step-by-step guide](http://extension.missouri.edu/xplor/agguides/agengin/g01913.htm) to interpreting all this data.
5. Things to consider while reading the MSDS: Is the product listed as a possible carcinogen (cancer-causing agent)? Do any of the chemicals listed in the product exceed maximum government recommended levels (OSHA PEL or ACGIH TLV)? What actions should be followed if you are overexposed to the product? Are there any risks of using the product that you were unaware of?
6. Although many chemicals listed in products may be noted as "hazardous" in the MSDS, keep in mind that these are designed for employees who are exposed to far higher quantities of the material in a work environment, and this does not necessarily mean that they are dangerous for use in the home. However, there are usually more eco-friendly options out there.
7. After your teen has reserached each chemical, she should write down any notes, especially the information on hazards, next to each item on her list.
8. To extend the activity, encourage your teen to take a trip to the store and find more gentle, environmentally friendly products to replace the ones that she discovered to contain a high amount of chemicals. She can cross-reference with the MSDS a second time to make sure that the products billed as being "eco-friendly" really are any better!

If you child has a job (or gets one in the future) that works with chemicals (including cleaning products), her employer should have a folder on-site containing MSDSs for all products used at that location. Learning to understand MSDSs helps ensure worker safety, so encourage your child to locate and read the MSDSs for any chemical product she works with to ensure her safety as well!