

## Welcome to the Science & Safety Consulting Services Chemical Inventory Tool!

There are more than 2000 chemicals included on the CD's Excel Spreadsheet (Sheet 1). The presence of a chemical on this spreadsheet does not mean that it is suitable for use in schools! A chemical inventory is required by OSHA 29 CFR 1910.1200 Hazard Communication Standard, better known as "Right-to-Know" Law. This inventory is a critical component of the Chemical Hygiene Plan, required for each middle and secondary school and community college by OSHA 29 CFR 1910.1450 "Occupational Exposure to Hazardous Chemical in Laboratories." Elementary schools are covered by the Hazard Communication Standard. This system can be used to manage a school/community college system's chemical inventory. The Chemical Inventory sheet can be used to determine if a chemical should be in a K-14 school and the amounts needed. This information and the Substitution of Chemicals document will prevent the procurement of many hazardous, dangerous chemicals and production of hazardous waste that require removal from schools by private chemical waste companies. You may toggle back and forth between Sheet 1 and Sheet 2 for explanation of abbreviations used on Sheet 1. Sheet 3 contains the U and P listed chemicals by EPA, and the DOT Hazardous Materials Hazard Classes.

You may refer to the Chemical Management chapter of the S&SCS's *Science Laboratory Safety Manual* for a thorough discussion of: The NFPA Classification System, Housekeeping, Chemical Procurement, Dispensing Chemicals, Labeling, Chemical Storage, Material Safety Data Sheets (MSDSs), Handling Chemical Spills, Waste Management and Disposal, and Hazardous Substances Quick References. Included on this CD is information about the *Science Laboratory Safety Manual* and how to order your copy. Visit [www.sciencesafetyconsulting.com](http://www.sciencesafetyconsulting.com) to read what people are saying about this valuable reference manual.

A Chemical Management System is comprised of five important components:

- Procurement
- Inventory
- Handling
- Storage
- Disposal

### How to Use the CD to Develop Your Customized Chemical Inventory

1. Open the Excel spreadsheet file and save a copy on your computer system. You may have to enable macros to proceed.
2. Begin by familiarizing yourself with the columns on the spreadsheet.
3. Make a list of the chemicals in your storeroom.
4. Do a "Save As" and name the new inventory "XXX" School / Community College Chemical Inventory
5. Delete the rows in the spreadsheet for chemicals that are not in your inventory.
6. Additional columns can be added for any information that is deemed helpful regarding the storage and/or disposal of chemicals.

### Development Tips

1. You can sort by Chemical Name (column A) and Other Names / Synonyms (column B) for easy identification of chemicals. If the chemical is listed **red** in column A, it has been classified by NIOSH and/or various other groups / agencies as having a greater hazardous nature than educational value in schools. Ultimately, it is the choice of each school system or community college to make the choices regarding usage of each chemical.
2. You can sort by Fisher (column M), JT Baker (column N) or Flinn (column O) Storage Systems to develop your compatible chemical storage system.
3. You can sort by NFPA Categories NFPA-H (column G); NFPA-F (column H), NFPA-I (column I) and NFPA-O (column J) to determine which chemicals you should not have in your inventory due to their hazard ratings. Toggle to "Storage & Special Hazards sheet to see code explanations. Chemicals that carry a Hazard Rating greater than 1 require justification. Column E indicates if a chemical is banned, justification required and appropriate K-12 school usage of a chemical. Columns F & V indicates a recommended quantity to be ordered. Depending on school size, the quantity might need adjustment.
4. Shelf Life (column P) is dependent on chemicals being stored in compatible families and under appropriate environmental storage conditions.
5. To find particular chemicals by chemical name or synonym, use the "Find" function under the Edit button on the tool bar.
6. Complete your customized chemical inventory, determine the storage system, store your chemicals, then fill in the columns S-W to complete the process.
7. If you plan on removing and disposing of chemicals, please handle and label appropriately. Remember-hazardous waste must also be stored until pickup / disposal according to chemical compatibility! See column Q for Waste Disposal recommendations. Always refer to local, state and federal regulations regarding chemical disposal. EPA, state and local chemical disposal regulations change often. It is the school / school systems responsibility to always check on these appropriate disposal requirements.
8. Column R indicates the EPA 40 CFR § 261 Identification and Listing of Hazardous Waste as well as the DOT Hazardous Materials Hazards Classes codes. For explanation of these codes, toggle to EPA/DOT Codes Sheet.
9. If you have a copy of the MSDS for the chemical, indicate Y or N in column X.
10. A reference for an MSDS website is listed for each chemical in column Y.

### Sheet 2 Storage Pattern & Special Hazards Codes

You may toggle back and forth between Sheet 1 and Sheet 2 to determine the meanings of the codes in the Fisher (M) and Flinn (N) columns; the NFPA O-Special Hazards (J) column and Contact (K) column. Chemicals that have an NFPA rating of greater than one must not be used in K-12 schools without justification. These codes are explained on **Storage & Special Hazard Code Sheet**.

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**Sheet 3 Identification and Listing of Hazardous Waste & DOT Hazardous Materials Hazard Classes Codes**

EPA identifies hazardous waste by List codes (F, K, U, P) and / or characteristic codes (I, R, C, T). DOT also has a Hazard Classes Code (last numbers in the column.) For a detailed explanation of these codes see the "EPA Identification and Listing of Hazardous Waste & DOT Hazardous Materials Hazard Classes Codes" document on this CD.

**NOTICE**

The user of this Chemical Management System CD is ultimately responsible for knowing how to store or use a chemical as well as disposal. Use MSDSs that come with each chemical to determine the manufacturer's information on each chemical. For a more complete explanation regarding handling of any chemical, consult the chemical's MSDS.

**S&SCS, Inc does not assume any liability for how a user interprets or uses the information on the Chemical Management System CD.**

**Copyright**

Although the files on this CD are copyrighted, you may put the CD's Chemical Inventory Excel spreadsheet file on your school's / school system's central computer network. The School System Central office may access the Chemical Inventory. However, each middle and secondary school in the school system must each have purchased its own copy of this CD to comply with copyright. If the school system purchased a site license or a CD for each of its middle and secondary schools, elementary schools may use the CD free. Teachers may not put the Chemical Inventory on their personal school or their personal laptop computer or transfer The Chemical Management System CD to a storage disk-permanent or temporary of any kind.

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