

**Assignment 1: Chemistry in the News:** Why is chemistry pertinent in everyday life, even to those who do not pursue a career in science? How is chemistry relevant to scientist and non-scientist alike? How, when, where, and why is chemistry discussed in the media, and how does it relate to you? You will be required to write two brief review papers that connect the relevancy of chemistry in contemporary life with current events. The papers will be based on printed articles in the newspaper or in magazines. Web-based resources may also be used, i.e. web-based versions of newspapers, magazines, and journals. One article should come from daily newspapers and one should be taken from one of the following science journals (Science, Nature, or Chemical & Engineering News). Each original article must contain a minimum of two pages (12 paragraphs). The sources must have been printed after November 1st, 2007. Write a brief (a minimum of 600 words typed, double-spaced) written review of each article, along with a copy or photocopy of the article stapled to your review. **Be sure to explain how chemistry makes the theme of the article possible.** Neatness and spelling count. Submissions that do not meet the described criteria may be docked at least 50% of the possible points. Remember to read the "Submitted Work: section above before submitting this assignment.

**Assignment 2: The Molecules Around Me:** I want you to read labels and to research the chemicals found on those labels. Begin by reading the labels of products you have in your home or by browsing the labels of products in stores. You must report on four products, one from each of the following four categories: (1) food and nutritional supplements, (2) health care and medicinal products, (3) personal hygiene and cleaning products, and (4) outdoor, gardening, and construction and building materials. You must include a list of the ingredients. Most products have a website that will list all the ingredients. None of the chemicals that you report can be the same; **you must have information for 20 different chemicals in this assignment.** You must use compounds; elements and ions are not acceptable. Each label you use in this assignment must have a minimum of five compounds; you must provide information on five compounds per label. Labels must be complete, legible, and the substances on which you report must be underlined or highlighted. For each product, for every compound you list you must provide the following information:

1. Name of Product
2. Compound name
3. Correct molecular formula - condensed molecular formulas are not acceptable. If you cannot find a molecular formula you cannot use the compound.
4. The molecular mass for each compound.
5. The molecular structure of all organic compounds: these may be imported as image files, or cut-and-pasted. Hand-drawn is not acceptable. If you cannot find a structure you cannot use the compound. Do not provide ionic structures.
6. In addition, you must provide a toxicity summary (including LD<sub>50</sub> values) for one compound from each of your products, using 1-3 complete sentences. Failure to use complete sentences will result in a deduction of points. In other words, I expect four toxicity summaries, not twenty.

Each compound must be numbered sequentially from 1 through 20. In other words, the five compounds from your first product will be labeled 1-5, the five compounds from your second product will be numbered 6-10, and so on. Failure to meet this requirement will result in loss of points. Remember to read the "Submitted Work: section above before submitting this assignment. You may not share information about compounds with others students. **Your work must be unique and it must be entirely your own. Any students caught sharing compounds will receive a grade of "E" for this class.**