

Chemicals are not just for Chemistry class. This lab activity will help you to identify and name chemicals that you can find all around you.

Procedure:

1. This is an out of class laboratory assignment.
2. There are 24 clues.
3. Each clue will lead you to one chemical compound.
 1. you may need knowledge from chapter 4 (# of electrons/protons etc.)
 2. you may use resources as long as you list them in your report.
 3. you can find these items at home, at a grocery store or drugstore.
4. Using the list of clues in this lab sheet discover the names of and then write the formulas for the compounds indicated by the clues.

For your report:

Follow all normal report procedures. YES, you need a materials list and a procedure for this report! Materials would include you list of clues and also any resources (internet sites or other). You can also list places you found products containing your chemicals.

Your data should be in a data table listing the name of the compound, the formula of the compound, and how you found the answer (clue only, clue plus the ingredient list of the product, just the ingredient list on the product, online, etc)

You need a conclusion!

Questions:

There are no questions for this lab. The point value for the questions will be shifted to the Data section of the lab and **you will be graded on the accuracy of the answers.**

The clue

A product where it is found

| | | |
|-----|---|-------------------------------------|
| 1. | A carbon containing acid | Vinegar |
| 2. | An ionic compound with 4 ions . The cation is polyatomic | Bread |
| 3. | An ionic compound with a polyatomic cation and anion. Atoms in the anion are all from the same group | Fertilizer, yeast nutrient |
| 4. | An ionic compound containing two ions. The cation has 18 electrons, the anion contains carbon and has a charge of -2 | Antacids, pet food |
| 5. | The one cation and two anions each have 18 electrons | Pickled products, olives |
| 6. | An ionic compound tha contains 5 ions. The cation has 18 electrons | yogurt |
| 7. | An ionic compound containing two ions. The cation has 18 electrons. The polyatomic ions contains 5 atoms (one of which is sulfur) and has a charge of -2. | Bread |
| 8. | An ionic compound containing two ions. The cation contains 27 electrons. The polyatomic anion contains 5 atoms (one of which is sulfur) and has a charge of -2. | Pet food |
| 9. | The anion is polyatomic, but consists of just one type of atom. The cations have no electrons. | Antiseptic, hair color lightener |
| 10. | An ionic compound containing two ions. The cation contains 24 electrons. The polyatomic anion contains 5 atoms (one of which is sulfur) and has a charge of -2. | Pet food, plant nutrient, spaghetti |
| 11. | An ionic compound containing two ions . The cation has 10 electrons. The polyatomic anion contains 5 atoms (one of which is sulfur) and has a charge of -2. | Laxative, soaking agent |
| 12. | An ionic compound containing two ions. The cation contains 23 electrons. The polyatomic anion contains 5 atoms (one of which is sulfur) and has a charge of -2. | Pet food |
| 13. | An acid with three hydrogen atoms and a polyatomic anion | Soft drinks (soda) |
| 14. | The one cation and one anion each have 18 electrons | soup |
| 15. | An ionic compound with two ions. The anion has 3 times as many electrons as the cation | Iodized table salt |
| 16. | A covalent compound containing 3 atoms. The total number of protons is 30 | Bouillon cubes |
| 17. | The polyatomic anion contains elements 1, 6 and 8. The cation has 10 electrons | Croutons, salty snacks |
| 18. | The anion has 5 atoms and has a common name different from its systematic name. the cation has 10 electrons | Cookies |
| 19. | There are two ions in this compound. The -1 anion has 8 more electrons than the cation. | Table salt, salted snacks |
| 20. | A binary ionic compound in which both the anion and cation have 10 electrons | Toothpaste |
| 21. | An ionic compound with a cation that has 10 electrons and a polyatomic anion that contains oxygen and has a total of 26 electrons | bleach |
| 22. | An ionic compound that has 3 times as many cations as anions. The cation has 10 electrons and the anion is polyatomic | Cleaning products, yogurt |
| 23. | A covalent compound containing 3 atoms. The total number of protons is 32. | Fig Newtons |
| 24. | An ionic compound containing two ions. The cation has 28 electrons and the atoms in the polyatomic anion are in the same group on the periodic table. | Pet food |