

1a. What is the atomic mass of aluminum? _____

b. Calculate the formula mass (molar mass) of Al_2O_3

c. Calculate the formula mass (molar mass) of $\text{Cu}(\text{NO}_3)_2$

d. Calculate the formula mass (molar mass) of oxygen (HINT: HOFBrINCl!!!)

e. Calculate the formula mass (molar mass) of $\text{Fe}_2(\text{S}_2\text{O}_3)_3$

2a. Calculate the molar mass (formula mass) of Copper II sulfate; CuSO_4

b. Determine the percent (by mass) of each element in CuSO_4 , according to the periodic table masses.



The above reaction is used to chemically extract copper from copper (II) sulfate. 2.234 grams of CuSO_4 are dissolved into water. After the reaction with iron is complete, 0.872 grams of copper have formed. Determine the percent copper (by mass) in the copper (II) sulfate, according to this lab data.

3a. Calculate the formula mass (molar mass) of NaClO_3 .

b. Use the periodic table to determine the percent oxygen in NaClO_3 , by mass.

c. Sodium chlorate, NaClO_3 , is heated until it decomposes into NaCl and oxygen gas. When 8.45 grams of sodium chlorate are heated, the reaction produces 3.71 grams of oxygen gas. Determine the percent oxygen (by mass) in sodium chlorate, according to this lab data.

Ban Dihydrogen Monoxide!

The Invisible Killer

Dihydrogen monoxide is colorless, odorless, tasteless, and kills uncounted thousands of people every year. Most of these deaths are caused by accidental inhalation of DHMO, but the dangers of dihydrogen monoxide do not end there. Prolonged exposure to its solid form causes severe tissue damage. Symptoms of DHMO ingestion can include excessive sweating and urination, and possibly a bloated feeling, nausea, vomiting and body electrolyte imbalance. For those who have become dependent, DHMO withdrawal means certain death.

Dihydrogen monoxide:

- is also known as hydroxyl acid, and is the major component of acid rain.
- contributes to the "greenhouse effect."
- may cause severe burns.
- contributes to the erosion of our natural landscape.
- accelerates corrosion and rusting of many metals.
- may cause electrical failures and decreased effectiveness of automobile brakes.
- has been found in excised tumors of terminal cancer patients.

Contamination Is Reaching Epidemic Proportions!

Quantities of dihydrogen monoxide have been found in almost every stream, lake, and reservoir in America today. But the pollution is global, and the contaminant has even been found in Antarctic ice. DHMO has caused **millions** of dollars of property damage in the midwest, and recently California.

Despite the danger, dihydrogen monoxide is often used:

- as an industrial solvent and coolant.
- in nuclear power plants.
- in the production of styrofoam.
- as a fire retardant.
- in many forms of cruel animal research.
- in the distribution of pesticides. Even after washing, produce remains contaminated by this chemical.
- as an additive in certain "junk-foods" and other food products.

Companies dump waste DHMO into rivers and the ocean, and nothing can be done to stop them because this practice is *still legal*. The impact on wildlife is *extreme*, and we cannot afford to ignore it any longer!

The Horror Must Be Stopped!

The American government has **refused** to ban the production, distribution, or use of this damaging chemical due to its "importance to the economic health of this nation." In fact, the navy and other military organizations are conducting experiments with DHMO, and designing multi-billion dollar devices to control and utilize it during **warfare** situations. Hundreds of military research facilities receive tons of it through a highly sophisticated underground distribution network. Many store large quantities for later use.

It's Not Too Late!

Act **NOW** to prevent further **contamination**. Find out more about this **dangerous** chemical. What you don't know **can hurt** you and others throughout the world. Send email to no_dhmo@circus.com, or a SASE to:

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