

Chemical Accident 1

A student is carrying out an experiment and pours HCl instead of H₂SO₄ into his beaker. After realizing the mistake, he wishes to pour the unused Hydrochloric Acid back into the reagent bottle, unfortunately he misses and pours it onto the lab bench.

Chemical Accident 2

I.B. Klutz is attending his very first chemistry class. He is anxious to get started and decides to do a couple of experiments at the same time for the sake of efficiency. One part of the experiment utilizes the Bunsen burner while the other part uses Methyl Alcohol. I.B. misses the beaker when pouring the methanol and a small amount is on the counter next to the open flame.

Chemical Accident 3

S.S. Spill is a graduate student in chemistry. She drops a full reagent bottle of acetic acid onto the floor. There are many other graduate students also in the lab at the time. A notable amount lands on the arm of one of the students.

Chemical Accident 4

I.M. Late is a student notoriously late for lab each week. She often brings her dinner with her since she is taking way too many credit hours. Without realizing it, a few drops of the sodium hydroxide she had been working with lands on her sandwich. She proceeds to finish the experiment and then her sandwich.

Chemical Accident 5

I.M. Kemist is a senior finishing up a degree in chemistry. She is working in a research lab and finds herself spilling concentrated sulfuric acid on her jeans. Fortunately, it is only a few mL of liquid (a small amount) that has landed on her.

Chemical Accident 6

An unfortunate student in class has 30% hydrogen peroxide spilled onto her hand. Having read about the lab prior to class, she acts in the correct manner.

Chemical Accident 7

Joni quickly makes up 100 mL of a sodium carbonate solution. Having a glass of water nearby, Joni mistakenly picks up the beaker containing sodium carbonate solution instead of her water and proceeds to drink the entire amount.

Chemical Accident 8

There has been a major chemical spill in the science building. Ammonium thiocyanate is all over the floor in the laboratory. Fortunately, no one gets the chemical on their skin. The whole class looks on in amazement

Chemical Accident 9

Jamie drops the reagent bottle of calcium chloride onto the floor. Not wanting the instructor to know, he quickly scoops it up with his hands and puts it in the garbage container

Chemical Accident 10

One of the top students decides to help the instructor clean up after a demonstration. Unfortunately he inhales the dry ice (carbon dioxide solid).

Chemical Accident 11

The laboratory assistant is in the balance room cleaning up some spilled aluminum potassium sulfate from the bench. She instantly notices that she has some of the solid on her hands.

Chemical Accident 12

One of the students in class obtains a cut from a broken piece of glassware. He goes over to the reagent shelf and obtains the bottle of elemental iodine to put on the cut. He does this without consulting any of the instructors.

Chemical Accident 13

I.M. Kemist decides to taste the iron (III) chloride. Fortunately he is conscious after tasting this chemical. He then admits to the instructor what he has done.

Chemical Accident 14

A bottle of sodium chloride spills onto the floor. The laboratory assistant efficiently cleans up the spill and dumps the contaminated sodium chloride into the regular garbage container. She clearly has gotten some of this chemical on her hands.

Chemical Accident 15

Alyx did not make it to class for the safety lesson and thus missed out on hearing the importance of safety goggles. While working with ethyl alcohol, a notable amount splashed up and landed in her left eye. Her right was not hit by this chemical.

Chemical Accident 16

Molly trips in lab while carrying a bottle of Ethyl Alcohol. Unfortunately, the bottle breaks and the liquid comes in contact with a Bunsen burner that is lit. The instructor is not present in the room at the time of the accident.

Chemical Accident 17

There has been a major chemical spill in the science building. Ammonium thiocyanate is all over the floor in the laboratory. Fortunately, no one gets the chemical on their skin. The whole class looks on in amazement

Chemical Accident Cards

Real-World Safety Scenario

Was the accident truly an accident or did it involve a lab safety violation? Explain.

What chemical was involved in your accident?

According to the SDS sheet for this chemical, what are the potential hazards?

Keeping these hazards in mind, what would the appropriate response be?

Source: <http://www.terrificscience.org/lessonpdfs/SafetyFirst.pdf>