A Series of Unfortunate Events: A Personal Story

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“One of the most difficult things to think about in life is one’s regrets. Something will happen to you, and for years afterward you will wish you had done something different”

~Lemony Snicket
It was just a normal day –
It is always just a normal day….

~Sigmann
...and then your parents die in a house fire

(Or a fire alarm goes off & disrupts operations)
So I decided that this would be a good time to go to lunch....

“One of the most troublesome things in life is that what you do or do not want has very little to do with what does or does not happen.”

~Lemony Snicket
I made the assumption that I could get back before things started up again.
“Assumptions are dangerous things to make, and like all dangerous things to make – bombs, for instance, or strawberry shortcake – if you make even the tiniest mistake you can find yourself in terrible trouble.”

~Lemony Snicket
Violet was left in charge....
...and I left no way to contact me in case of an emergency
What could go wrong?

“People who think nothing can go wrong are usually disappointed.”

-Lemony Snicket
“Fate is like a strange, unpopular restaurant filled with odd little waiters who bring you things you never asked for and don't always like.”

-Lemony Snicket
“…the table of elements does not contain one of the most powerful elements that make up our world, and that is the element of surprise.”

“Accidents happen all the time.”

-Lemony Snicket
“We will have to do a shorter experiment – It will be easy to set up.”
"The prep book says we need a 10% solution of ethylenediamine.

It’s simple:
To make 1 L of 10% ethylene diamine solution:
mix 100 mL of ethylenediamine with 900 mL of DI water.

But I have never made that?
“Knowing that something is wrong and doing it anyway happens very often in life, and I doubt I will ever know why.”

~Lemony Snicket
Violet went to get the chemical to accommodate the instructors

“People often forget to look at something right in front of them.”

~Lemony Snicket
Violet did not review the safety data sheet. All the prep book said was “(caution, en is toxic)”

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**Signal: Danger**
**GHS Hazard Statements**
Aggregated GHS information from 30 notifications provided by 1390 companies to the ECHA C&L Inventory. Each notification may be associated with multiple companies.

- H226 (100%): Flammable liquid and vapor [Warning: Flammable liquids]
- H302 (99.78%): Harmful if swallowed [Warning: Acute toxicity, oral]
- H311 (51.03%): Toxic in contact with skin [Danger: Acute toxicity, dermal]
- H312 (53.17%): Harmful in contact with skin [Warning: Acute toxicity, dermal]
- H314 (100%): Causes severe skin burns and eye damage [Danger: Skin corrosion/irritation]
- H317 (100%): May cause an allergic skin reaction [Warning: Sensitization, Skin]
- H318 (38.2%): Causes serious eye damage [Danger: Serious eye damage/eye irritation]
- H332 (21.58%): Harmful if inhaled [Warning: Acute toxicity, inhalation]
- H344 (84.42%): May cause allergy or asthma symptoms or breathing difficulties if inhaled [Danger: Sensitization, respiratory]
- H355 (26.98%): May cause respiratory irritation [Warning: Specific target organ toxicity, single exposure; Respiratory tract irritation]
- H412 (24.96%): Harmful to aquatic life with long lasting effects [Hazardous to the aquatic environment, long-term hazard]

Information may vary between notifications depending on impurities, additives, and other factors. The percentage value in parenthesis indicates the notified classification ratio from all companies. Only Hazard Codes with percentage values above 10% are shown.
“As I am sure you know, when people say 'It's my pleasure,' they usually mean something along the lines of, 'There's nothing on Earth I would rather do less.'

~Lemony Snicket
No news is good news – right?

About that saying....
"No news is good news." … simply means that if you don't hear from someone, everything is probably fine, and you can see at once why this expression makes such little sense, because everything being fine is only one of many, many reasons why someone may not contact you. Perhaps they are tied up. Maybe they are surrounded by fierce weasels, or perhaps they are wedged tightly between two refrigerators and cannot get themselves out."

“The expression might well be changed to "No news is bad news," except that people may not be able to contact you because they have just been crowned king or are competing in a gymnastics tournament.

-Lemony Snicket
“The point is that there is no way to know why someone has not contacted you, until they contact you and explain themselves. For this reason, the sensible expression would be "No news is no news."

-On jumping to conclusions...-

-Lemony Snicket
“...it is hard not to jump at all when you are jumping to conclusions, and it is impossible to make sure that you are jumping to a safe place, because all 'jumping to conclusions' means is that you are believing something is true even though you don't actually know whether it is or not.”

-Lemony Snicket
You have to tell her!

“There are many difficult things in this world to hide, but a secret is not one of them.”

~Lemony Snicket
“At times the world can seem an unfriendly and sinister place, but believe us when we say that there is much more good in it than bad. All you have to do is look hard enough. And what might seem to be a series of unfortunate events may, in fact, be the first steps of a journey.”

-Lemony Snicket
A student worker was exposed to highly caustic vapor and there was a release to the environment.

An amine was diluted without proper ventilation.

A large amount of caustic vapor was released.

An amine was diluted without proper ventilation.

A bottle of the already prepared solution was overlooked.

The student stockroom worker proceeded with change without appropriate knowledge or training.

Instructors assumed student stockroom worker could handle switch.

Instructors decide to perform shorter experiment which is not prepared.

Fire Alarm resulted in shortened lab period.

Personnel assumed that they could be back in time.

Senior stockroom personnel leaving a student worker unsupervised.

There was poor communication between the stockroom personnel and instructors.

Instructors decide to perform shorter experiment which is not prepared.

AND

AND

Learning Goal Impacted

One of the educational goals in our curriculum is to educate undergraduate students to work safely with chemicals. This must include learning how to plan, how to communicate effectively, and to consider what the implications of procedural changes might be.
Latent: “Organizational Failures” are due to elements such as poor culture, policy, and leadership decisions (including funding) which adversely affect safety. “Technical Failures” have to do with problems with physical items such as equipment failure, incorrect instructions.

Active: **Knowledge-based** (when a person cannot apply existing knowledge or is expected to perform a task they are not trained to do); **Rule-based** (when a person fails to carry out a procedure or protocol correctly); **Skill-based** (a person fails to perform a routine task correctly, esp. when a routine changes).
Latent

- Organizational Influences
  - Poor leadership decisions – Both from myself and the instructors (changing experiment, leaving, pressuring a student)
  - Poor management – Student was left without a safety net (she had nobody to turn to)
  - Pre existing conditions - Chemical access, no clear instructions for faculty or student workers on preparation of solution

- Technical
  - Poorly written procedure (no safety instructions or limitations)

Active

- Knowledge
  - Student did not have the knowledge of the process or hazards

- Rule
  - Student did not review the safety of the process

- Skill
  - Not your normal “dilution”
Lessons Learned
“Sometimes words are not enough. There are some circumstances so utterly wretched that I cannot describe them in sentences or paragraphs or even a whole series of books.”

~Lemony Snicket
“In an emergency, one often learns that one's companions can be of even less help in extraordinary circumstances than they are during an average evening.”

~Lemony Snicket
“We are all told to ignore bullies. It's something they teach you, and they can teach you anything. It doesn't mean you learn it. It doesn't mean you believe it. One should never ignore bullies. One should stop them.”

~Lemony Snicket
“But there are times in this harum-scarum world when figuring out the right thing to do is quite simple, but doing the right thing is simply impossible....”

~Lemony Snicket
SOLUTION PREP:  
*Quantity sufficient for 200 students*

Ethylenediamine is very corrosive to the skin, and can be lethal if inhaled. **THIS SOLUTION SHOULD ONLY BE MADE BY THE STOCKROOM MANAGER.**

1 L of 10% ethylenediamine solution: **WITH Nitrile GLOVES AND IN THE HOOD,** mix 100 mL of ethylenediamine with 900 mL of DI water.
But it's going to be alright.
• “...Your initial opinion on just about anything will change over time.”
• “But the sad truth is that the truth is sad, and that what you want does not matter. A series of unfortunate events can happen to anyone, no matter what they want.”
• “It is very easy to say that the important thing is to try your best, but if you are in real trouble the most important thing is not trying your best, but getting to safety.”
• “Even the best plans can change if there's an accident.”
• “Imagining the worst doesn’t keep it from happening”
• “In the vast majority of cases, however, getting into trouble has nothing to do with one's self-esteem. It usually has much more to do with whatever is causing the trouble - a monster, a bus driver, a banana peel, killer bees, the school principal - than what you think of yourself.”
• “…There's more to life than safety”
• “There is no easy way to train an apprentice. My two tools are example and nagging.”
• “Those unable to catalog the past are doomed to repeat it.”
• “There is nothing wrong with crying at the end of a long day.”
~The End~