This One Cool Material Will make WorkSafeBC Hate You

(Number 1, 2, 3, and 4 will kill you!)

An Undistinguished Lecture by
ex-CS-Safety-Committee-Member Adam Geller
Why am I talking about this?

Honestly no idea, seemed interesting
I mentioned WorkSafeBC, what’s that?

The Workers' Compensation Board of British Columbia (WorkSafeBC) is the exclusive workers’ compensation insurer in BC.

Its mandate includes prevention of occupational injuries and disease.

In other words, the BC equivalent of OSHA (I highly recommend the OSHA subreddit reddit.com/r/osha).
Safety is our top priority (after shareholder value)

I've been saying for years that "employees are our most valuable asset."

It turns out that I was wrong. Money is our most valuable asset. Employees are ninth.

I'm afraid to ask what came in eighth. Carbon paper.
There’s a lot of legislation about safety, Federally, Provincially, and Locally

Federal:
  Many different Ministries may have jurisdiction

Provincial:
  Health authorities, provincial Ministries, WorkSafeBC

Local:
  Building Codes

Organization Specific:
  Local Safety Teams, Occupational First Aid
Why all this talk about workplace safety?

It didn’t always used to be like this
Storytime
Radium

After being discovered by the great Marie Curie, Radium was used to create the first luminescent paint in 1902

In the 1920s, radium paint was used to make luminescent “timepieces”

A watch with a very large amount of paint would cause about 310 mrem to your wrist each year, about 600x as much as getting a xray of your wrist [1]

Radium Cont.

The use of radium paint contributed to several deaths

Not the people wearing the watches, but rather the people painting the watches

Ross Mullner - *Deadly Glow: The Radium Dial Worker Tragedy*
Mercury

(Freddie) One of the greatest singers of all time

(a.k.a. quicksilver) A heavy metal
Mercury was once used to treat syphilis and during the reign of Queen Elizabeth, it was commonly used as a facial peel.

In 2001, a dentist died as the result of a mercury spill in Vancouver.


In the 19th century, Mercury was used in the process of making felt hats. Hence the term “mad as a hatter”, or “mad hatter”.
Mercury poisoning

Mercury can be counteracted through Chelation if done quickly enough.

Otherwise, it irreversibly damages significant enzymes which protect against oxidation, restore vitamins, and do other important things.

The brain is very vulnerable to oxidation, so mercury poisoning causes significant brain damage.
Asbestos

The most wonderful material
Electric insulator and highly heat-resistant

Became widely used at the end of the 19th century, most buildings from before the 1980s probably contain asbestos

Nowadays, completely banned by every developed country
Asbestos

According to the WHO:

“Currently, about 125 million people in the world are exposed to asbestos at the workplace. Approximately half of the deaths from occupational cancer are estimated to be caused by asbestos. In addition, it is estimated that several thousand deaths annually can be attributed to exposure to asbestos in the home.”

https://www.who.int/news-room/fact-sheets/detail/asbestos-elimination-of-asbestos-related-diseases
Lead

Another wonderful material
  Dense, yet soft and pliable, doesn’t oxidize, abundant

Used in all sorts of places, including paint and plumbing

Unfortunately, it’s also a neurotoxin
We didn’t used to know these things were dangerous, we used them a lot because they were useful
Are there things we use today that may turn out to be dangerous?

Microplastics causing birth defects and fertility issues

Widespread electromagnetic radiation

Other things???