

# YOUTH ON THE JOB

## #5 CHEMICAL SOUP

### Chemicals are everywhere

**CHEMICAL EXPOSURE CAN BE DANGEROUS** for all workers, and young workers — because they are still developing — may be more at risk for health problems when they are exposed to some chemicals.

**AN ESTIMATED** 1,000 new chemicals are added yearly to a total of about 140,000 chemicals that are available commercially worldwide. **Of these, around 900 have been evaluated for cancer effects—or about 0.6%! Even fewer are tested for other chronic hazards like birth defects.**

**WHETHER YOU WORK WITH THEM DIRECTLY OR NOT**, if there are chemicals in your workplace, you have the right to know what risks they pose to you and your co-workers.



### The Most Effective Ways to Protect Workers from Chemical Exposure

**THE HIERARCHY OF CONTROLS** — In order, these are the best ways to control exposures to hazardous chemicals:

- 1. Eliminate the Hazardous Chemicals** — By substituting less hazardous chemicals, and finding new less toxic ways to make products, exposure to the hazard can be eliminated.
- 2. Prevent the hazardous chemicals from entering the environment** — Through technology, such as ventilation systems, exposure to the toxic materials can be greatly reduced or eliminated.
- 3. Limit the workers' contact with hazardous chemicals** — Through creative scheduling, job rotation and better design, interaction of the worker with the chemicals can be reduced.
- 4. Personal Protective Equipment (PPE)** — By wearing and using equipment such as respirators, gloves, goggles and boots, the workers have less direct contact with the hazardous materials.

**Keep in mind that employers are required to follow the “hierarchy of controls” in order to protect their employees from hazardous exposures.**



### Chemical Exposure

Chemicals can get into your body in a variety of ways:

- INHALATION** — Breathing in fumes, vapors or chemical dust
- INGESTION** — Swallowing chemicals
- DIRECT CONTACT/ABSORPTION** — Some chemicals can damage your skin at the point of contact, and others can get into your body through the skin

*If you work with chemicals, make sure to wash your hands before you go to the bathroom, eat or drink, or apply make-up.*

### Acute vs. Chronic

Chemicals can cause acute and/or chronic health problems. Acute problems happen immediately after an exposure. Chronic long-term health problems come from repeated chemical exposure. You may not feel the effects for months or years because it takes time for damage to develop. Both acute and chronic health effects can result in permanent injury like skin, respiratory or nervous system ailments, and even cancer.



Chemicals we see every day like solvents — nail polish remover, paint thinners — may cause a rash, headache or nausea. These effects could be acute and/or temporary, but if you are exposed to solvents over a long period of time, serious chronic illnesses could occur.

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# TOXIC OR NOT?

**TOXIC MEANS POISONOUS.** A toxic substance can cause a wide range of injury and illness. A toxic effect may be something you can see, like a rash, or a feeling such as nausea or an illness caused by low-level exposure over a long period of time. And don't always count on your nose to let you know if something is toxic — sometimes chemicals that you can't smell can be dangerous, too. When a small amount of a chemical can be harmful, it is considered toxic. A chemical is considered non-toxic when exposure to only a very large amount will cause damage.

<b>Construction</b>	Solvents, glues, cement dust, asbestos
<b>Car Mechanic</b>	Gasoline, carbon monoxide, anti-freeze, exhaust gases
<b>Supermarket/ Convenience Stores</b>	Floor cleaners, pesticides
<b>Hospital/Healthcare</b>	Latex, cancer drugs, formaldehyde
<b>Restaurant</b>	Floor cleaners, acidic soap

## Some of the hazardous chemicals you may encounter on the job:

*“I was working in my church as a janitor and we had to clean everything for the weekend. I found bleach and ammonia under the sink, and decided to mix them. It started to bubble. My throat got dry and I had trouble breathing. I ran out of the church and later found out that when you mix those two chemicals, there's a reaction that could kill you.”*

*—Manny V. 15 year old boy from NYC*



# HAZCom – The law

The OSHA Hazard Communication Standard, also known as “Hazcom” and the New York State “Right-to-Know” are laws that require employers to provide training and to inform workers of:

- the names of the chemicals they confront on the job**
- the hazards created by those substances**
- the measures required to protect against those hazards**

## SDS Safety Data Sheet

**Safety Data Sheets (SDS)** give basic safety and ingredient information on specific workplace chemicals. Employers must provide workers with training and a Safety Data Sheet (SDS) for any hazardous substance that the worker comes in contact with.

# GETTING HELP!!

**CALL NYCOSH.** The New York Committee for Occupational Safety and Health (NYCOSH) is a worker-friendly organization that will provide advice to you about where to go for help. NYCOSH is a non-profit coalition of 200 local unions and more than 400 individual workers, physicians, lawyers and other health and safety activists – all dedicated to the right of every worker to a safe and healthful workplace.

**CONTACT: NYCOSH 212-227-6440**  
[www.nycosh.org](http://www.nycosh.org)



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