



"Safety Comes First"

Case Western Reserve University Environmental Health and Safety

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History of National Safety Month

The National Safety Council is the founder of National Safety Month. It declared June as National Safety Month in 1996. The council aims to spread awareness of safety hazards and unintentional injuries for industrial workers of the United States.

Historian Arnold Toynbee used the term 'Industrial Revolution' for the first time during the late 18th century. He created awareness of the safety of workers who worked in coal mines and the textile industry. During that period, workers were not given enough space to work safely and were often given hot and dangerous equipment to work with.

Moreover, workers were required to work over 10 hours for minimum wages. In 1877, the Massachusetts Factory Act was passed. Within 13 years, other states in the U.S. issued similar laws to improve the safety standards for American workers.

Later, in 1913, the National Safety Council in Chicago estimated that more than 20,000 industrial workers die from poor working conditions in the U.S. every year. Soon, Canada passed its first health and safety law under the Factory Act of 1884. The Canadian government, however, only practically implemented its Factory Act when five immigrant workers lost their lives while working underground in Toronto.

Similarly, the U.S. government became more proactive in supporting the rights of industrial workers after the infamous fire incident at the Shirtwaist Factory in 1911 in New York City. A fire broke out in the garment factory and the workers were trapped inside the factory, since all the fire exit doors were locked.

Source: NationalToday.com

Regulated Medical Waste



*“The
(FDA)
regulates
medical
devices
such as
sharps
contain-
ers ...”*

Medical waste is primarily regulated by state environmental and/or state health departments. The term “regulated medical waste” (RMW) or, alternatively, “medical waste” or “infectious waste” is often the term used by states to describe medical wastes generated by healthcare facilities (e.g., hospitals, physicians' offices, dental practices, blood banks, veterinary hospitals/clinics, medical research facilities, and laboratories) that may be contaminated by blood, body fluids, or other potentially infectious materials.

While most state regulations focus on the definition, handling, on-site storage, treatment, and state disposal of medical waste, the regulations of the Department of Transportation's (DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA) govern the packaging and transportation of what the DOT calls “infectious substances” or RMWs. Frequently, a state will have requirements for packaging, labeling, and transportation that parallel or are in addition to those required by the DOT.

In addition to the DOT, other federal agencies that regulate different aspects of medical waste management include:

- The Food and Drug Administration (FDA) regulates medical devices such as sharps containers that are designed to safely contain used needles.
- The Occupational Safety and Health Administration (OSHA) regulates medical waste in the workplace, such as bloodborne pathogens.
- The U.S. Postal Service (USPS) regulates medical waste transported via the postal system.
- The Nuclear Regulatory Commission (NRC) regulates some types of radioactive medical waste.

The definitions of medical waste and the regulations addressing it are promulgated by a state to regulate medical waste at its generation site. However, not every state defines “medical waste.” Because medical waste/RMW is regulated at the state level, each state defines what material is legally considered to be medical waste/RMW. The state agency defining such waste is typically the state environmental agency or the state department of health. Types of medical waste in states can include, among others:

- Human pathological wastes
- Blood, blood products, and bodily fluids
- Cultures and stocks of infectious agents

Regulated Medical Waste, Cont.

(Continued from page 2)

- Infectious sharps
- Isolation wastes from patients with highly communicable diseases
- Contaminated animal waste

Although a state usually defines what constitutes medical waste/RMW, the state does not necessarily have regulations that specifically address how to manage the waste or who is subject to the state's medical waste/RMW rules. Some state regulations may only assert that the waste must be treated to rid it of disease risks before it is disposed of in a state's solid waste landfill. If other aspects of management of the medical waste/RMW are not specifically addressed in the state's regulations, and the handler of the waste is only required to handle it "properly," that may indicate that it is up to the handler to utilize commonsense best management practices in addition to any applicable federal FDA, OSHA, and/or DOT requirements with which they must comply. "Proper" management of medical waste/RMW may require turning to state agency guidance documents or the federal regulations of the FDA, OSHA, and the DOT for guidance.



Source: CDC.gov

“...it is up to the handler to utilize commonsense best management practices ...”

Chemical Safety for Maintenance Workers



"...all containers must have a (proper) label."

All cleaning products used by maintenance workers have a safety data sheet (SDS). SDSs need to be available where the chemicals are being used and stored, including the storage closet and vehicles if needed.

Also, all containers must have a label. Each label needs to have the name of the product; required hazard warnings; and the name, address, and phone number of the manufacturer. If the labels are worn or unreadable, they should be replaced. If a container doesn't have a label, tell your supervisor. Do not use it.

To stay safe and healthy when working with these products, be sure to:

- Use mild cleaners for regular cleaning. Save stronger chemicals for stubborn stains.
- Dilute chemicals (such as disinfectant) with as much water as possible while still getting the job done. Follow the manufacturer's directions.
- Open windows and doors, if possible, when using chemicals.
- Never mix chemicals unless instructed to by the manufacturer, especially ammonia and bleach — this is a lethal combination.
- Close all containers, especially spray bottles, when not in use.
- Pour chemicals (such as toilet bowl cleaner) from a low height to avoid splashing.
- Never smoke around cleaning chemicals.
- Always wear personal protective equipment (PPE), like gloves, safety glasses, and respirators, when pouring or diluting chemicals.

Chemicals require proper storage—never store chemicals near electrical equipment or in heat or direct sunlight. Find a well-ventilated area for storage.

Know What Causes Heat-Related Accidents

Every year, thousands of employees across the country suffer from serious heat-related illness. If not addressed, heat exhaustion can become heatstroke, which can be deadly. The problem is that performing labor-intensive activities like agriculture, construction, roofing, and landscaping in hot weather can raise body temperatures beyond levels that can be cooled by sweating. Working in hot conditions can also cause accidents on the job.

- **Because heat affects the body's cooling system and reduces blood flow to the brain, muscles, and other organs, you can experience a decrease in strength and an increase in fatigue.** Fatigue can result in inattentiveness to job hazards and slow responses in emergencies.
- **Heat can also reduce your ability to understand instructions or retain information.** Even a short-term reduction in mental sharpness could result in an accident if you haven't made a correct or safe decision when dealing with a job or task.
- **And don't forget that heat usually makes people uncomfortable and irritable.** This can cause a worker to become easily frustrated, cut corners, or ignore safety procedures. This type of behavior is an open invitation to an accident.
- **There are also other risks caused by heat that can contribute to accidents.** For example, sweaty hands can drop tools or fogged-up safety glasses can cause you to trip and fall.

As these examples indicate, working in hot conditions can be hazardous for many reasons. You can probably think of other ways heat might increase the risk of accidents.

So how do you prevent accidents from happening in hot working conditions? One important step that can be taken to reduce heat stress risks is to use personal protective equipment (PPE) that has been designed especially for hot conditions. For example:

- Light hats that provide shade for the head, face, and neck when working outdoors;
- Portable water products that can be worn on the back or around the waist and accessed through a straw or tube system to provide adequate fluids;
- Reflective clothing that reduces the impact of radiant heat; *and*
- Systems that circulate air around the body, such as those used with full-body suits with air-supplied breathing systems.

Source: SafetyBLR

“...heat affects the body's cooling system and reduces blood flow to the brain...”



The GHS Flame Pictogram



“All substances labeled with this pictogram have the potential to cause a fire.”

If you work with chemicals, it's important to know how to properly read the labels on the containers and understand what the symbols mean. Labels provide important information about the chemicals you might be exposed to while doing your job—so pay attention to them. Understanding and using information available about the chemicals you work with can lower your risk of injury. Containers of hazardous chemicals transported to or from your facility are all labeled in the same way and contain the same categories of information. A container label may have one or more pictograms—a black picture on a white background framed by a red diamond. Pictograms are meant to help you quickly identify a chemical's hazards. There are nine different pictograms, each representing a different hazard. In this issue, we're going to discuss the flame pictogram.

Hazards

The flame pictogram is a symbol with an image of a black fire with a line underneath it on a white background framed by a red diamond (see upper left of this page). If you see this pictogram on a chemical label affixed to a container, it means that the chemical inside is flammable. It may also mean that the substance is pyrophoric, meaning it may ignite shortly after coming in contact with air or that it may gradually produce heat when mixed with air. This pictogram is also used for substances that may become spontaneously flammable or emit flammable gases after interacting with water, substances that are self-reactive or unstable, or organic peroxides capable of exploding or burning rapidly.

Handling

All substances labeled with this pictogram have the potential to cause a fire. So, when you see this pictogram, be cautious and do things the right way, which includes following the Precautionary Statements on the label. More specific information on the hazards of a chemical is listed in the Hazard Statement on the label and in the safety data sheet (SDS) for the chemical. The SDS will also give you information on what personal protective equipment (PPE) to use; what to do if you or a coworker is exposed to the chemical; how to safely handle, store, and dispose of the chemical; and how to handle leaks or accidental releases.

Storing

You should always ensure that the containers storing chemicals are properly closed and labeled. Store containers of flammable substances in cool, well-ventilated areas; away from any heat or other sources of ignition; and segregated from incompatible substances, such as oxidizing agents. Storage requirements can differ depending on the chemical, so check the SDS for storage instructions.

Chemical Spotlight: Dry Ice

Dry ice is solid carbon dioxide. It is extremely cold (about -78°C , or -109°F) and is commonly used as a cooling agent or refrigerant to keep medicines, food, and other perishables cold.

Unlike most solids, dry ice can change directly from solid to gas at room temperature and pressure through a process called sublimation.

Hazards of working with dry ice

When dry ice comes in contact with the skin, it can cause frostbite.

As dry ice sublimates and becomes carbon dioxide gas, the gas will accumulate and displace oxygen in a poorly ventilated area. This can lead to suffocation if left unchecked.

Carbon dioxide gas will accumulate in a container where dry ice is stored. If the container is not ventilated, pressure will build from the accumulating gas, which can cause the container to expand or even explode.

Consult the safety data sheet (SDS) for dry ice in your workplace for first-aid measures to follow in the event of overexposure to dry ice or carbon dioxide gas.

Wear your personal protective equipment (PPE)!

Never handle dry ice with bare hands. Wear gloves that are loose-fitting and specially designed to protect against extremely cold materials like dry ice.

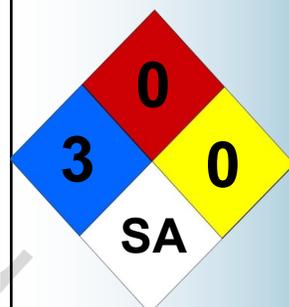
Wear safety glasses with side shields when working with dry ice. Also wear a face shield if you need to cut dry ice.

Storage

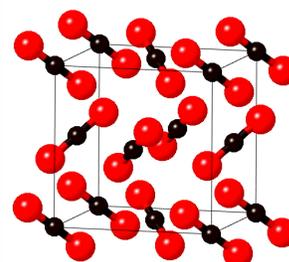
Any area or container where dry ice is kept must be well-ventilated to prevent the buildup of carbon dioxide gas and pressure. Although carbon dioxide gas is present in our environment at low concentrations, it can accumulate and displace oxygen if there is inadequate airflow. Never store dry ice in walk-in refrigerators, truck beds, or other small unventilated areas.

Disposal

Dispose of dry ice by bringing it outdoors or into a well-ventilated area and allowing it to sublimate into the atmosphere. Do not put dry ice into the sewer, a garbage disposal, or a chute.



“(Carbon dioxide gas) will accumulate and displace oxygen in a poorly ventilated area.”



Source: Safety.BLR

Fun Page

F
U
N

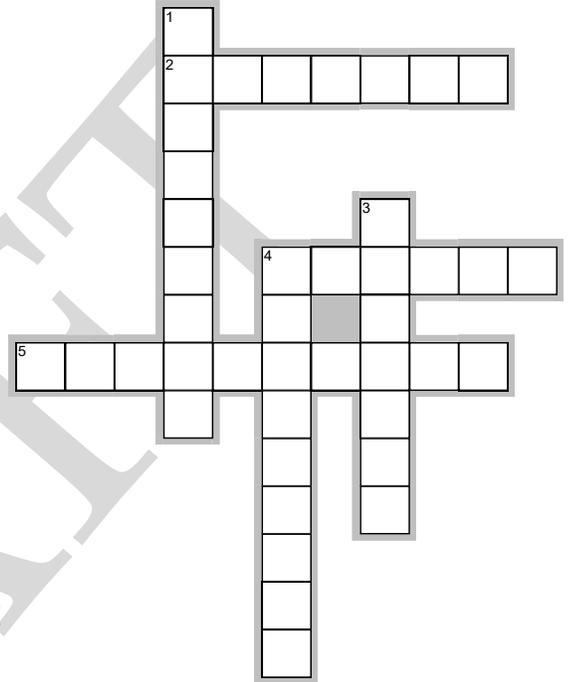
P
A
G
E

Across

2. Reflective clothing reduces the impact of _____ heat
4. (FDA) regulates medical devices such as _____ containers that are designed to safely contain used needles.
5. Store containers of flammable substances in cool, well-_____ areas.

Down

1. When dry ice comes in contact with the skin, it can cause _____.
3. In 1877, the Massachusetts _____ Act was passed.
4. Pour chemicals (such as toilet bowl cleaner) from a low height to avoid _____.



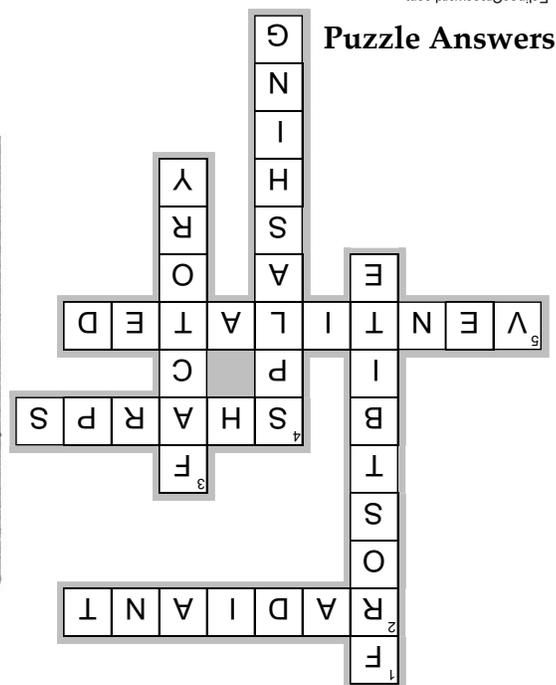
EclipseCrossword.com

Funny Corner



“Ooooooh... I was wondering why a water bucket was labeled ‘hazardous chemical’...”

Puzzle Answers



EclipseCrossword.com

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Safety Quotes

*By Failing
to prepare,
you are
preparing
to fail.*

*~Benjamin
Franklin*

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