

# Target organs:

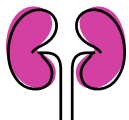
## What are they and why do they matter?



Lungs



Liver



Kidneys

### Key takeaways

- Our organs have specific functions that work together to keep us healthy.
- Some toxins target specific organs and can permanently damage them. That information can be found in the substance's SDS.
- Protect your health by learning about target organs and the substances you work with, including food, drinks, and medications.

Have you read a safety data sheet and seen the term "target organ"? What does that mean?

A target organ is an organ in the body that is most affected by a specific chemical, drug, bacteria, or other substance. For instance, the bacteria that causes tuberculosis targets the lungs. Most of the organs and systems in the body can be a target, but when reading a safety data sheet, the most commonly referred to as a target organ are:

- **Lungs, liver, kidney, heart, blood, or circulatory system, brain or central nervous system, and skin** (yes, the skin is considered an organ.)

All of the above organs are considered vital to our life functions in some way. If we're exposed to a chemical or other substance that damages one or more of these organs, we can become very ill, get a disease, or even die. Our organs are exposed to many different things every day. Our bodies work to break down, use, or detoxify what we are exposed to from the food we eat, the air that we breathe, and the chemicals or other contaminants in our

environment. It's important to understand that our organs work together to keep us healthy every day and protecting them is essential.

Understand what substances you work with and if, by their design or nature, they target specific organs. A few well-known toxins that affect specific target organs (some impact several organs) include:

**Lungs** - asbestos, radon, cigarette smoke, glues

**Liver** - methylene chloride, vinyl chloride

**Kidneys** - cadmium, lead, chlorinated hydrocarbon solvents

**Heart, blood, circulatory system** - carbon monoxide, nitrates, methylene chloride

**Brain, central nervous system** - mercury, arsenic, toluene, methanol

**Skin** - nickel, arsenic, cement (chromium), glues



Heart



Brain



Skin

### Take action (Complete one or more activities as a team)

- GROUP DISCUSSION:** Choose a workplace substance. Review its safety data sheet and discuss what target organs are identified.
- FIELD TRIP:** Go to an area with substances and observe how they are used. Consult your SDS to help identify target organs that might be impacted. Can the process be changed or improved?
- EXPOSURE CONTROLS REVIEW:** What kinds of exposure controls are in place at your facility? Are they enough to protect target organs?

