GHS – Pictograms Meeting Kit

WHAT'S AT STAKE

Every time you handle a chemical at work – whether it's a cleaner, solvent, gas, or corrosive – you're relying on one thing to keep you informed: the label. And at the heart of that label are GHS pictograms. These small red and black symbols pack a serious punch. They tell you if something is toxic, flammable, explosive, or capable of causing long-term health damage. If you ignore them or don't know what they mean, you could expose yourself to deadly hazards without even realizing it. Recognizing and understanding GHS pictograms is your first line of defense – because when it comes to chemicals, what you don't know can hurt you.

WHAT'S THE DANGER

GHS pictograms aren't just symbols on a label – they're warning signs about serious chemical hazards that can threaten your health and safety if ignored. Each one tells you something critical: whether a product can poison you, burn you, blow up, or damage your organs over time. If you don't recognize or understand them, you're working blind around chemicals that can kill.

1. **Misidentifying a Chemical – A Shortcut to Serious Harm**
   - If you mistake a flammable liquid for something harmless, a small spark could trigger a fire or explosion. If you don't recognize the skull and crossbones, you might breathe in or absorb a fatal toxin without even realizing it.
   - Workers have sprayed flammable cleaning agents near heat sources, not knowing they were highly combustible
   - Accidental skin contact with corrosives has led to chemical burns because workers didn't check the label

1. **Missing PPE Warnings – No Protection When You Need It**
   - Each pictogram also signals what kind of PPE (personal protective equipment) is needed. If you ignore a corrosion symbol, for example, and wear thin gloves instead of chemical-resistant ones, you could end up with serious hand injuries or eye damage.
   - The health hazard symbol indicates risks like cancer, reproductive harm, or respiratory disease – but those aren't always obvious unless you know what it means
   - Not using the right respirator or gloves could allow toxins to enter your body silently

1. **Incompatible Storage – Explosion or Toxic Gas Risk**

- GHS pictograms help identify which chemicals must be kept apart. Storing an oxidizer near a flammable liquid, or mixing an acid with a base, can lead to violent reactions or the release of toxic gases.
- Without recognizing the flame, exploding bomb, or gas cylinder symbols, incompatible chemicals may be stored side-by-side
- One misstep in storage or disposal can create a workplace-wide emergency

HOW TO PROTECT YOURSELF

Protecting yourself from chemical hazards starts with understanding what you're handling – and the GHS pictograms are your cheat sheet. These symbols tell you the dangers at a glance, but only if you know what they mean and how to act on them. Here's how to stay safe:

Learn All Nine GHS Pictograms – Know What You're Dealing With

There are nine pictograms used in the Globally Harmonized System (GHS), each representing a different class of hazard. Take the time to memorize them – it only takes a few minutes, but it can save your life.

- **Flame:** flammable gases, liquids, solids
- **Skull and Crossbones:** acute toxicity (fatal or toxic)
- **Corrosion:** skin burns, eye damage, metal corrosion
- **Health Hazard:** cancer, organ damage, fertility harm
- **Exclamation Mark:** irritants, skin sensitizers, narcotic effects
- **Flame Over Circle:** oxidizers
- **Gas Cylinder:** compressed gases
- **Exploding Bomb:** explosives, self-reactives
- **Environment:** aquatic toxicity (note: not mandatory in the U.S. but still important)

Read the Label and SDS – Don't Guess

Every chemical container should have a label with pictograms and a Safety Data Sheet (SDS) available. Don't assume you know what a chemical is just because of its appearance or common use. Read the label before you open it, and review the SDS for PPE requirements, handling instructions, and first-aid measures.

Use the Right PPE for the Hazard – The pictogram will tell you what you need. For example:

- **Corrosion =** chemical-resistant gloves, apron, and face shield
- **Health Hazard =** respiratory protection
- **Flame =** flame-resistant clothing and no ignition sources nearby

Never assume one set of PPE works for every chemical. Tailor your protection to the pictogram.

Follow Safe Storage and Handling Rules – Pictograms help identify incompatible materials. Keep flammables away from oxidizers, and corrosives away from bases or metals. Store gases in ventilated areas and check that labels are intact and visible.

**Label Secondary Containers – ** If you transfer chemicals to another container, you must relabel it with the correct GHS pictogram. Unlabeled bottles or spray cans are one of the most common violations – and one of the easiest ways to get someone hurt.

Respond the Right Way in an Emergency

If exposure occurs, the GHS pictograms guide emergency responders, too. Keep SDS copies accessible in your work area, and **report all incidents immediately** – even if they seem minor.

FINAL WORD

GHS pictograms may be small, but they carry big warnings. When you understand what each symbol means, you’re better prepared to protect yourself and your team.