GHS – Pictograms Stats and Facts



FACTS

1. **Label Misinterpretation:** Workers who don’t recognize GHS pictograms may mishandle chemicals, leading to burns, toxic exposure, or explosions.
2. **Improper Storage:** Ignoring pictogram warnings about flammables or oxidizers can result in incompatible chemical storage and increased fire risk.
3. **PPE Failure:** Without understanding pictograms that indicate corrosives or toxic substances, workers may skip required PPE like gloves or face shields.
4. **Spill Mismanagement:** Lack of knowledge about environmental or health hazard symbols can lead to improper containment or cleanup methods.
5. **Respiratory Exposure:** Chemicals marked with the “Health Hazard” pictogram may cause chronic illness if inhalation risks are not properly identified.
6. **Injury from Reactives:** Workers unfamiliar with the “Exploding Bomb” or “Flame Over Circle” symbols may unknowingly apply heat or pressure to unstable materials.

STATS

- In 2024, OSHA recorded 5,190 workplace fatalities, with hazardous material-related fatalities (e.g., lead, pesticides) rare (<1%) but tied to chronic exposure or secondary injuries like falls. Proper PPE and GHS compliance could prevent most incidents, per NIOSH.
- In 2024, Hazard Communication violations (29 CFR 1910.1200) ranked 2nd (3,200 citations), often due to missing GHS labels or inadequate training. PPE violations (29 CFR 1910.132) ranked 6th (1,876 citations), including improper clothing for hazardous materials.
- A 2022 NIOSH study found that GHS-guided PPE (e.g., respirators, chemical-resistant suits) reduced hazardous material injuries by 22%, but 25% of workers lacked training on GHS pictograms.
- WorkSafeBC reported 25–30 annual fatalities in British Columbia (2020–2023), with hazardous material incidents rare (<1%) but tied to asphyxiation or chronic exposure. GHS-compliant PPE is critical.
- CCOHS 2023 data showed that workplaces enforcing GHS-guided PPE reduced hazardous material injuries by 20%, particularly in landscaping and construction.
- In 2024, Ontario introduced fines up to $500,000 for repeat OHS violations,

including failure to provide GHS-compliant training or PPE.