



GUIDELINE FOR WORKPLACE SAFETY AND HEALTH SIGNAGES



Department of Labour
Ministry of Industry, Commerce and Employment

**Guideline for Workplace Health &
Safety Signage
2025**

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Foreword

Occupational health and safety are not merely a regulatory requirement; it is a fundamental right and a shared responsibility. In line with the Department's commitment to ensuring the well-being of every worker, we proudly present the Guideline for Workplace Health & Safety Signage, 2025.

This document has been developed to provide clear, practical guidance on the use of safety signage across all sectors in Bhutan. It aligns with the provisions of the Regulation on Occupational Health, Safety and Welfare (OHSW) 2022, and reflects international best practices, including the Globally Harmonized System (GHS) for chemical hazard communication.

Effective safety signage is a critical component of hazard communication. It serves as a constant visual reminder of potential risks and necessary precautions, helping to prevent accidents, reduce injuries, and save lives. Whether in construction, manufacturing, hospitality, or office environments, consistent and correctly placed signs contribute to a culture of safety and vigilance.

I extend my sincere appreciation to the technical advisors, members of the Core Working Group, and all stakeholders who contributed their expertise and time to the development of this guideline. Their dedication ensures that this resource is both comprehensive and accessible.

It is my firm belief that the widespread adoption of this guideline will significantly enhance occupational health and safety standards in Bhutan. I urge all employers, safety officers, and workers to use this document actively and integrate its recommendations into their daily operations.

Together, let us build safer workplaces for a stronger, healthier Bhutan.

Director

Department of Labour

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Introduction

This Guide is intended for safety and health practitioners, employers, managers, employees, safety representatives, inspectors, and other stakeholders who are responsible for implementation and promotion of Occupational Health, Safety and Welfare in Bhutan. Its purpose is to provide practical guidance on the requirements of Safety Signage under Regulation on Occupational Health, Safety & Welfare (OHSW) 2022, Chapter 4: Workplace Health and Safety Management (Section 68–71). These provisions set out the minimum standards for the design, placement, and use of safety signs and signals in workplaces where hazards cannot be eliminated or sufficiently reduced through other control measures.

The objective of this Guide is to support the prevention of occupational accidents and ill health by clarifying how safety signages should be applied in a variety of work settings—including construction sites, factories, hotels, institutions, hydropower plants, and offices. It is designed as a practical resource and does not constitute a legal interpretation of the Regulation on OHSW 2022 or the Labour and Employment Act of Bhutan 2007.

Future revisions of this Guide may be issued by the Department of Labour under the Ministry of Industry, Commerce and Employment (MoICE) to incorporate updates arising from new evidence, international conventions, or amendments to LEA and OHS legislations.

For ease of reference, the text of the relevant Regulations and Schedule are presented in *italics* throughout this Guide.

Purpose

The purpose of this guideline is to gain compliance with the Regulation on OHSW 2022 and to ensure that all workplaces display clear, consistent, and effective safety signages to prevent accidents, inform workers of hazards, and promote a safe working environment. Safety signage is a critical component of hazard communication under the Regulations OHSW 2022.

Scope

This guideline applies to all workplaces in Bhutan where the use of safety signage is necessary to safeguard employees, employers, and any other persons present at the workplace. It covers both indoor and outdoor work environments across all sectors where safety signage is required under the Regulation on Occupational Health, Safety, and Welfare, 2022.

Legal Framework

The Occupational Health, Safety & Welfare Regulations 2022 outlines specific legal obligations on employers regarding the use of safety and health signages in the workplace. These provisions ensure that hazards are effectively communicated and that workers understand the required precautions.

- Section 68; Employers must:
 - Provide safety or health signages where hazards cannot be eliminated or adequately reduced.
 - Ensure that such signages are displayed in appropriate and visible locations.
- Section 69; Employers must use prescribed safety signages and signals related to transport risks (road, inland waterway, air) whenever such risks are present and pose a danger.
- Section 70; All safety and health signages must comply with the design and usage requirements set out in Schedule I of the Regulation.
- Section 71; Employers are required to provide workers with information and instruction on:
 - The meaning of each safety or health signage.
 - The measures to be taken in response to the signage.

What is Safety Signage?

Safety signage refers to the use of standardized symbols, colours, and words to communicate hazards, mandatory actions, safe conditions, and emergency information in the workplace. It is a vital component of occupational health and safety management, helping workers, contractors, and visitors quickly recognize risks and take appropriate action.

Importance of Safety Signage

- 1. Accident & Injury Prevention:** Safety signages directly prevent accidents by providing pre-emptive warnings about hazards. They act as a visual first line of defense, alerting workers of potential dangers before exposure. This includes visible threats like slippery floors or high-voltage areas, as well as invisible ones like toxic chemicals or radiation

- 2. Universal Communication & Safe Behavior:** Signages use universally understood symbols, colours, and pictograms to overcome language barriers and ensure all individuals—including visitors and contractors—can quickly grasp risks. Beyond warnings, signages promote safe habits by reinforcing training and reminding workers of required actions, such as wearing personal protective equipment (PPE).
- 3. Emergency Preparedness & Response:** In an emergency, every second counts. Signs provide critical, instant guidance, directing people to exits, fire equipment, and assembly points. This clear guidance helps to minimize confusion and panic, ensuring a safer and more orderly evacuation.
- 4. Employer's Liability & Benefits:** Well-placed safety signage is a key part of an employer's due diligence. It not only demonstrates a commitment to a safe workplace but also helps reduce costs and legal liability. By providing clear warnings, an employer has evidence that safety measures were in place, which can be crucial during an accident investigation.

Classification of Safety Signages

Safety and health signages are categorized into different types based on the message they convey. Each category uses specific shapes, colours, and symbols to ensure quick recognition and consistent understanding in the workplace. The Safety Signages are classified as follows:

1. **Prohibition Signages** – Indicate actions or behaviours that are not allowed because they could cause danger (e.g., *No Smoking, Do Not Enter*).
2. **Mandatory Signages** – Indicate specific actions that must be taken to protect health and safety (e.g., *Wear Helmet, Use Eye Protection*).
3. **Warning Signages** – Draw attention to hazards that may cause injury or illness but are not immediately life-threatening (e.g., *High Noise Area, Slippery Surface*).
4. **Danger Signages** – Warn of life-threatening hazards and must clearly identify the hazard present (e.g., *Danger – High Voltage, Danger – Toxic Gas*).
5. **Emergency/ Safe Condition Signages** – Indicate emergency facilities, equipment, or safe routes (e.g., *First Aid, Emergency Exit, Assembly Point*).
6. **Fire Equipment Signages** – Identify the location of fire alarms, extinguishers, hose reels, and other firefighting equipment (e.g., *Fire Alarm Call Point, Fire Extinguisher*).
7. **Limitation / Restriction Signages** – Specify numerical limits or controlled access requirements (e.g., *Speed Limit 20 km/h, Authorized Personnel Only*) including traffic signages.
8. **GHS** -Refers to labels and pictograms used for chemical hazards, following the Globally Harmonized System (GHS). These signs communicate the type and severity of chemical hazards, ensuring proper handling, storage, and emergency response.
9. **Other Signages & Markings** – This includes barricades, fencing, floor markings, safety corners, and other visual indicators used to guide, warn, or protect workers and visitors within the workplace.

Prohibition Signages

Purpose

Prohibition signages indicate activities that are **not permitted (things you must NOT do)** because they may cause **danger, accidents, or health risks**.

Design & Geometry

Table 1: Design & Geometry for Prohibition Signs

Feature	Specification
Shape	Red circle with a 45-degree diagonal line inside the circle from upper-left to lower-right
Meaning	Prohibition Action
Safety Colour	Red (covering at least 35% of the area of the sign), White background, black symbol inside
Contrast Colour	White (for text)
Graphical Symbol Colour	Black

Key Note: The symbol inside the circle clearly represents the prohibited action (e.g., cigarette, pedestrian, mobile phone).

Proportion

Prohibition signages shall comply with the layout requirements given in Figure 1.

- Circular symbol diameter: \varnothing
- Red border thickness: $0.1 \times \varnothing$
- Diagonal slash width: $0.08 \times \varnothing$, angled at 45°

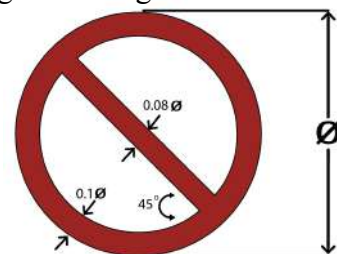


Figure 1: Dimensions of Prohibition Sign

Placement Guidelines

- Position signs at every entrance to the restricted area or directly adjacent to the hazard.
- Ensure they are clearly visible before a person can engage in the prohibited activity.

Common Locations /Examples:

Table 2: Common Locations for Prohibition Signs



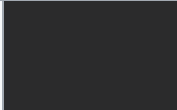
Location / Scenario	Example Prohibition Signage / Message
Entry to restricted areas	“No Unauthorized Entry”
Areas with flammable vapours	“No Smoking / No Open Flame”
Near sensitive equipment or clean zones	“Do Not Touch Equipment”
Machinery during maintenance	“Do Not Operate – Under Maintenance”
Confined spaces awaiting clearance	“Do Not Enter – Permit Required”
Loading bays with moving vehicles	“No Pedestrian Access”
Storage of explosives or blasting agents	“No Mobile Phones / Radios / Open Flame”
Food production or sterile rooms	“No Eating or Drinking”
Chemical handling points	“Do Not Mix Chemicals Without Authorization”
Noise-critical or communication zones	“No Loud Talking / Maintain Silence”

Colour Coding

The colour codes¹ for Prohibition Signages are given in Table 3:





¹ These are the colours specified in ISO Standard 3864-4 in RAL colour standard.





Table 3: Colour codes for Prohibition Signs

Meaning	Colour	CMYK	RGB Hex	Example of Colour
Restriction Signage	Safety colour: Red	cmyk(0,77,77,39)	#9B2423	
Backgrounds	Contrast colour to the safety colour: White	cmyk(0,0,0,0)	#FFFFFF	
Symbol	Graphical symbol: Black	cmyk(0,0,0,100)	#000000	

Pictorial Examples

Table 4: Pictorial Examples of Prohibition Signages

Prohibition Signage	Meaning	Prohibition Signage	Meaning
 <p>No access for unauthorised persons</p>	It indicates that only authorized individuals are permitted to enter, thereby preventing accidents, reducing hazard exposure, and avoiding interference with restricted operations.	 <p>No access for pedestrians</p>	This sign indicates that pedestrians are not allowed to enter or walk in the designated area. The sign is used to keep people out of zones intended only for vehicles, machinery, or other restricted operations, thereby preventing accidents and ensuring safety.
 <p>No naked flames</p>	Strictly prohibited to smoke or use any open flame, such as a lighter or a match to prevent fires, and explosions especially in areas with flammable gases, liquids, vapors, or materials.	 <p>Not drinkable</p>	Water is unsafe or unsuitable for human consumption that could cause illness or health problems.

Prohibition Signage	Meaning	Prohibition Signage	Meaning
 <p>No smoking</p>	Smoking is strictly prohibited in this area.	 <p>Do not extinguish with water</p>	Do not use water to fight fires in this area, may cause electric shocks, explosions, or dangerous chemical reactions.
 <p>No access for Industrial Vehicles</p>	A sign indicating that powered industrial vehicles, such as forklifts, are prohibited from entering a designated area.	 <p>Do not touch</p>	Physical contact with a specific object, surface, or equipment is prohibited due to potential risks such as electric shock, burns, contamination, or mechanical injury.

Mandatory Signages

Purpose

Mandatory signages indicate actions that must be carried out to protect people from harm. They are used to enforce safety requirements and ensure compliance with protective measures.

Design & Geometry

Table 5: Design & Geometry for Mandatory Sign

Feature	Specification
Shape	Circle
Meaning	Mandatory Action
Safety Colour	Blue (covering $\geq 50\%$ of sign area)
Contrast Colour	White (for text or graphical symbols)
Graphical Symbol Colour	White

Placement Guidelines

- Place signs at **access points** to areas where the requirement applies (e.g., workshops, construction zones, mining areas, tunnels).

Typical Locations / Examples

Table 6: Design & Geometry for Mandatory Sign



Scenario / Location	Recommended Sign / Message	Rationale / Purpose
Construction site	“Hard Hat Must Be Worn”	Protects workers from falling objects or head injury.
High noise areas	“Hearing Protection Must Be Worn”	Prevents hearing loss due to exposure to loud machinery.
Areas with chemical exposure	“Gloves Must Be Worn”	Protects hands from corrosive or toxic substances.
Areas with welding operations	“Welding Shield Must Be Worn”	Protects eyes and face from sparks and UV radiation.

Scenario / Location	Recommended Sign / Message	Rationale / Purpose
General PPE requirement	“Safety Footwear Must Be Worn”	Protects feet from crush injuries, sharp objects, or chemical spills.
Confined spaces	“Respiratory Protection Must Be Worn”	Prevents inhalation of hazardous gases or low-oxygen environments.
Elevated work platforms	“Harness Must Be Worn”	Protects against falls from height.
Areas with airborne particles	“Face Mask Must Be Worn”	Prevents inhalation of dust or hazardous fumes.

Colour Coding



The colour codes for Mandatory Signages are given in Table 7:









Table 7: Colour Code for Mandatory Sign



Meaning	Colour	CMYK	RGB Hex	Example of Colour
Mandatory	Signal Colour: Blue	cmyk(100,39,0,47)	#005387	
Backgrounds	Contrast colour to the safety colour: White	cmyk(0,0,0,0)	#FFFFFF	

Pictorial Examples

Table 8: Pictorial Examples of Mandatory Signages

Mandatory Signage	Meaning	Mandatory Signage	Meaning
	It means that anyone entering the area is required to wear a hi-vis vest to make themselves easily seen, thereby reducing the risk of accidents in environments with moving vehicles,		It indicates that all persons in the area are required to wear a hard hat to protect against head injuries from falling objects or other hazards.

Mandatory Signage	Meaning	Mandatory Signage	Meaning
	machinery, or poor lighting.		
 Protective Clothing must be worn	To signify that protective clothing must be worn	 Protective Gloves must be worn	To signify that protective gloves must be worn
 Protective Footwear must be worn	To signify that safety footwear must be worn	 Eye Protection must be worn	To signify that opaque eye protection must be worn
 Ear Protection must be worn	To signify that ear protection must be worn	 Safety Harness must be worn	Wearing a harness is compulsory to prevent falls and protect workers on heights, scaffolding, ladders, or elevated platforms.
 Wash Your Hands Please	To signify that hands must be washed	 Face Mask must be worn	The sign indicates that all persons in the area must wear a face mask to protect against inhalation of dust, fumes, or airborne contaminants.

Mandatory Signage	Meaning	Mandatory Signage	Meaning
 <p data-bbox="236 517 469 600">Welding Shield must be worn</p>	<p data-bbox="531 277 783 616">A welding shield must be worn at all times during welding operations to prevent eye and face injuries from sparks, ultraviolet radiation, and hot metal fragments.</p>	 <p data-bbox="858 517 1086 600">Secure Gas Cylinders</p>	<p data-bbox="1163 394 1382 499">To signify that gas cylinders must be secured.</p>

Warning/ Cautionary Signages

Purpose

The Warning signages are used to **ALERT** people to **potential hazards** that may cause injury or harm if precautions are not taken. Encourages **caution** in areas with moderate risk.

Design & Geometry

Table 9: Design & Geometry for Warning Sign

Feature	Specification
Shape	Triangle with point upwards
Meaning	Warn: the yellow triangle draws attention, signaling caution or warning, while the pictogram depicts the specific hazard
Safety Colour	Yellow (covering at least 50% of the total area of the sign), Triangular band: Black
Graphical Symbol Colour	Black

Key Notes: Symbols should clearly represent the hazard (e.g., falling object, toxic gas, electrical shock) and signs must be maintained in good condition and unobstructed to remain effective.

Proportion

Warning signages shall comply with the layout requirements given in the Figure 2:

- If $b = 70$ mm, then $r = 2$ mm.
- Base to radius of curvature = 35:1

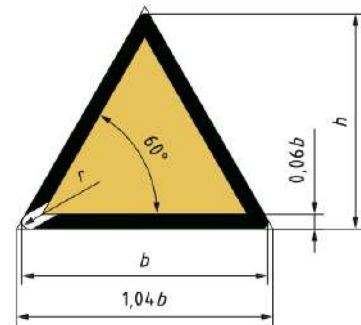


Figure 2: Dimensions of Warning Sign

Placement Guidelines

- Position at all entrances to hazardous zones or immediately next to the hazard.
- Ensure signs are highly visible, and seen before exposure.
- Additional signs may be placed along access routes leading to the hazard.

Common Locations / Examples



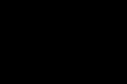
Table 10: Common Locations of Warning Signages

Scenario / Location	Recommended Warning Sign / Message	Rationale
Slippery floor	“Caution – Wet Floor”	Risk of slips or falls; not immediately life-threatening but needs attention.
Low headroom	“Caution – Low Clearance”	Potential for minor injury if unaware; moderate risk.
Fragile roof sections	“Caution – Fragile Roof”	Roof may break under load; moderate risk if precautions are followed.
Trip hazards (cables, uneven surfaces)	“Caution – Trip Hazard”	Could cause minor to moderate injury; alerts people to proceed carefully.
Moderate noise area	“Caution – Hearing Protection Recommended”	Exposure could cause long-term hearing damage; not immediately severe.
Hot surfaces (non-critical equipment)	“Caution – Hot Surface”	Can cause burns if touched; moderate risk with simple precautions.
Construction zone (general)	“Caution – Construction Area”	Alerts to potential hazards; not immediately life-threatening if PPE is used.

Colour Coding









The colour codes for Warning Sign are given below:

Table 11: Colour codes for Prohibition Signages

Meaning	Colour	CMYK	RGB Hex	Example of Colour
Warning	Signal Colour: Chrome Yellow/ Amber	cmyk 90, 35, 100, 00)	#F9A900	
Backgrounds and Symbol	Signal Color: White	cmyk(0,0,0,0)	#FFFFFF	
Symbol	Signal colour to the safety colour: Black	cmyk(0,0,0,100)	#000000	

Pictorial Example

Table 12: Pictorial Examples for Warning Signages

Warning Signage	Meaning	Warning Signage	Meaning
	<p>This warning sign indicates that the area contains materials or conditions that may cause an explosion, and appropriate precautions must be taken.</p>		<p>It signifies that the area contains potential hazards that may cause injury or damage. Stay alert and follow all posted signs and barriers</p>
	<p>It means that the material is flammable and can ignite easily from heat, sparks, open flames, or static electricity and needs to be more careful.</p>		<p>It means that the substance can cause severe skin and eye burns, respiratory irritation, and may corrode metals</p>
	<p>It means that physical obstacles are present that may cause trips, falls, collisions, or restricted movement. Stay alert when moving through this area</p>		<p>It indicates that the substance is toxic and can cause serious health effects or death if inhaled, ingested, or absorbed through the skin</p>
	<p>A hazard warning used in industrial environments to alert pedestrian and other vehicle operations to potential forklift areas. These signs are designed to improve safety and reduce the risk of accidents, which can be caused by collision, speed or unstable load.</p>		<p>This danger warning sign indicates that there is a risk of objects falling from above, and caution must be exercised to prevent injury.</p>

Fire Equipment Signages

Purpose:

Fire equipment signage indicates the location of fire safety equipment, alarms, and escape routes. They help ensure rapid identification and safe response during emergencies.

Design & Geometry

Table 13: Design & Geometry for Fire Equipment Signage

Feature	Specification
Shape	Square
Meaning	Fire Equipment
Safety Colour	Red (covering at least 50% of the sign area)
Contrast Colour	White
Graphical Symbol Colour	White

Key Notes: Proper visibility and maintenance are essential for effective emergency response.

Placement Guidelines

- Place directly above or adjacent to fire equipment, alarms, or exit routes.
- In large areas, repeat signs along escape routes to guide people safely.
- Fire equipment signages are especially relevant near hazardous substances and dangerous goods (e.g., flammable chemicals, fuels).

Fire Extinguisher and Sign placement Distances

Table 14: Fire Extinguisher & Sign Placement Distances

Area / Location	Fire Class	Maximum Travel Distance	Notes
General workshop/ work areas	A, B, D	≤ 50 ft (15 m)	Includes all typical workshops, machinery areas, fabrication zones. Walls or partitions may require additional extinguishers.
Office/ control rooms	A, C	≤ 75 ft (23 m)	Each partitioned room should have an extinguisher if access is blocked by walls.
Areas storing flammable liquids	B	≤ 50 ft (15 m)	Extinguishers placed close to storage for rapid response.

Notes:

- Travel distance refers to the maximum distance a person should walk to reach an extinguisher.
- If walls, partitions, or obstructions exist, additional extinguishers are required to maintain rapid access.

Common Locations / Examples:

Table 15: Common Locations for Fire Equipment Signage


Location / Scenario	Example Fire Equipment Signage / Message
Above the extinguishers for Class A/B/C fires	“Fire Extinguisher”
Beside fire hose reels in corridors or workshops	“Fire Hose Reel”
At fixed installations for flammable-liquid fires	“Foam Extinguisher – For Liquid Fires Only”
Next to CO ₂ units for electrical hazards	“CO ₂ Fire Extinguisher – Electrical Fires”

Location / Scenario	Example Fire Equipment Signage / Message
Above cabinets housing extinguishers or blankets	“Fire Equipment Inside”
At fire blanket stations in kitchens or labs	“Fire Blanket”
On doors to fire hydrant valve rooms	“Fire Hydrant”
Along escape routes indicating call points	“Fire Alarm – Break Glass”

Colour Coding



The colour codes for Prohibition Sign are given below:



Table 16: Colour codes for Fire Equipment Signages

Meaning	Color Name	CMYK	RGB Hex ^[6]	Example of Colour
Fire Equipment	Signal Colour: Red	cmyk(0,77,77,39)	#9B2423	
Backgrounds and Symbol	Signal Colour: White	cmyk(0,0,0,0)	#FFFFFF	

Pictorial Examples

Table 17: Pictorial Examples for Fire Equipment Signages

Fire Equipment Signage	Meaning	Fire Equipment Signage	Meaning
	This sign should be mounted above the fire extinguisher to easily identify the location of the nearest extinguisher.		This sign indicates the location of the manual fire alarm call point, which you must press to raise the fire alarm in case of fire. It should be placed above or next to the alarm call point.

Fire Equipment Signage	Meaning	Fire Equipment Signage	Meaning
	<p>Fire hose reel is available for use in extinguishing fires, especially Class A</p>		<p>Fire buckets are portable containers filled with water or sand, used to extinguish small fires or prevent fire spread. Water-filled buckets are primarily for Class A fires (wood, paper, cloth), while sand-filled buckets are suitable for Class B fires (flammable liquids or small oil spills).</p>

Emergency Signage/ Safe Condition Signages

Purpose

Emergency and Safe Condition signages indicate the location of, or provide directions to, emergency facilities and safety resources. This includes first aid stations, safety showers, eyewash stations, and emergency exits. They help guide people quickly to essential safety equipment or evacuation routes during emergencies.

Design & Geometry

Table 18: Design & Geometry for Emergency & Safe Condition Signage

Feature	Specification
Shape	Square
Meaning	Safe Condition / Emergency
Safety Colour	Green (covering at least 50% of the sign area)
Contrast Colour	White
Graphical Symbol Colour	White

Key Note: Proper placement and visibility are essential to ensure effective guidance during emergencies.

Placement Guidelines:

- Position signs at key decision points, entrances, and along routes to emergency facilities.

Common Locations / Examples:


Table 19: Common Locations for Emergency & Safe Condition Signages

Scenario / Location	Recommended Sign / Message	Rationale / Purpose
Emergency Exit	“Fire Exit – Keep Clear”	Guides people to a safe exit during an emergency.
Escape Route	“Emergency Escape Route”	Indicates the path to evacuate safely.
First Aid Station	“First Aid”	Identifies location of medical assistance for injured personnel.
Assembly Point	“Assembly Point”	Directs personnel to safe gathering locations outside the hazard area.
Eye Wash Station	“Emergency Eye Wash”	Shows location of emergency equipment for chemical exposure.
Safety Shower	“Safety Shower”	Indicates location to decontaminate after chemical spills.
Emergency Telephone	“Emergency Phone”	Identifies phones for alerting authorities or requesting help.

Colour Coding







The colour codes for Emergency & Safe Condition Signage are given below:

Table 20: Colour codes for Emergency & Safe Condition Signage

Meaning	Colour	CMYK	RGB Hex	Example of Colour
Safe Condition	Signal Colour: Green	cmyk(72,0,35,50)	#237F52	
Backgrounds and Symbol	Signal Colour: White	cmyk(0,0,0,0)	#FFFFFF	

Pictorial Examples

Table 21: Pictorial Examples of Emergency & Safe Condition Signage

Safe Condition Signage	Meaning	Safe Condition Signage	Meaning
	It means to proceed to the left side from here to the nearest safe exit in case of an emergency.		It means to proceed to the right side from here to the nearest safe exit in case of an emergency.
	Indicates the location of the first aid box where basic treatment materials are kept for use in case of injuries or medical emergencies.		Designated safe meeting area where everyone must gather after evacuating a building during an emergency, such as a fire or earthquake.
	Location of an emergency safety shower, used to quickly wash off hazardous chemicals, fire, or contaminants from the body during an accident.		Location of a stretcher, which is used to transport injured or incapacitated persons safely in case of accidents or medical emergencies.

Danger Signages

Purpose

Danger signages are to warn immediately of a hazard that could cause serious injury or death if not avoided. They help workers, visitors, contractors, and others become aware of risk before exposure.

Design & Geometry

Table 22: Design & Geometry of Danger Signage

Feature	Specification
Shape	Square or rectangular panel with a clear border
Signal Word	“DANGER” (in large, bold type)
Symbol / Pictogram	Clearly depicting the specific hazard (e.g. electricity, fall, chemicals)
Text	Supplementary message below the signal word—concise and visible
Colour Scheme	Red background for the signal word; White text for signal word (DANGER); and Black text and white background for supplementary text, combined with other prohibition and warning signages

Key Note: Ensure high contrast so sign is readable in different lighting conditions

Placement Guidelines

- At or near the point of hazard (e.g. immediately before entering a dangerous machine’s reach)
- In high-traffic or approach areas so people can see the sign well before reaching danger
- At eye level where possible
- Well-lit and unobstructed

Common Locations / Examples:

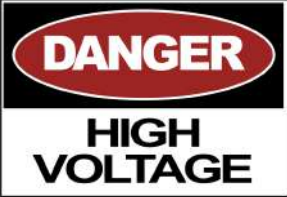



Table 23: Common Location for Danger Signage

Location / Scenario	Example Danger Signage / Message
Live electrical panels, switchgear rooms	“Danger – High Voltage”
Construction zones with deep excavations	“Danger – Open Excavation”

Location / Scenario	Example Danger Signage / Message
Unguarded rotating / cutting machinery	“Danger – Moving Parts – Keep Hands Clear”
Roof edges, mezzanines, pits without guardrails	“Danger – Fall Hazard”
Chemical storage (strong acids, oxidisers)	“Danger – Corrosive Substances”
Areas with stored energy (hydraulic / pneumatic)	“Danger – Pressurised System”
Confined spaces with toxic or oxygen-deficient atmospheres	“Danger – Toxic / Asphyxiation Risk”
Rooms with X-ray or laser equipment	“Danger – Radiation / Laser Beam”
Boiler rooms or steam lines	“Danger – Hot Surface / Steam”
Controlled blasting or demolition sites	“Danger – Explosives – Keep Out”

Pictorial Examples:

Table 24: Pictorial for Danger Signage

Danger Signage	Meaning	Danger Signage	Meaning
	Refers to electrical energy at a voltage high enough to cause fatal electric shock or burns.		It conveys a critical safety message regarding a specific hazard and access restriction.
	A common safety sign used to alert individuals to hazardous areas and restrict access.		It means that the area beyond the sign is a hazardous construction site and access is strictly restricted to authorized construction personnel only.

Limitation or Restriction Signages

Purpose

Limitation or Restriction signages specify numerical limits, capacity restrictions, or controlled access to areas or equipment. They ensure safety, regulatory compliance, and controlled use of facilities.

Design & Geometry

Table 25: Colour codes for Limitation or Restriction Signages

Feature	Specification
Shape	Circle
Outer Ring Colour	Red
Inner Circle/ Background	White
Graphical Symbol/ Text/ Numerical Colour	Black
Purpose	Communicates numerical or access limits, reinforced by symbols


Placement Guidelines

- Display at entrances, access points, or directly on equipment/areas where the restriction applies.
- Ensure signs are clearly visible, and seen before entry or use.
- Signs must be maintained and unobstructed to remain effective.
- Placement should ensure users recognize restrictions before entering or operating equipment.

Colour Coding

The colour codes for Limitation or Restriction Signages are given below:

Table 26: Colour codes for Limitation or Restriction Signages

Meaning	Colour	CMYK	RGB Hex	Example of Colour
Limitation / Restriction Signage	Safety colour: Red	cmyk(0,77,77,39)	#9B2423	

Meaning	Colour	CMYK	RBG Hex	Example of Colour
Backgrounds	Contrast colour to the safety colour: White	cmyk(0,0,0,0)	#FFFFFF	
Symbol	Graphical symbol: Black	cmyk(0,0,0,100)	#000000	

Pictorial Examples

Table 27: Pictorial Examples of Limitation or Restriction Signages

Limitation / Restriction Signages	Meaning	Limitation / Restriction Signages	Meaning
	Vehicles must not exceed 20 kilometers per hour in the designated area.		The sign indicates that the maximum load allowed on a structure, vehicle, or pathway is 5 tonnes (5T)
	The sign indicates that the maximum allowable height for vehicles or equipment passing under a structure is 4.5 meters. Exceeding this limit may cause collisions, structural damage, or accidents.		The sign indicates that the maximum allowable length of vehicles in the designated area is 10 meters. Exceeding this limit may cause traffic congestion, collisions, or difficulty maneuvering in tight spaces.

Traffic Signages

Additionally, for ensuring road safety within the workplace, reference should be made to BTS 33:2017, developed by the Bhutan Standards Bureau (BSB). This standard provides comprehensive guidelines on road traffic signage, encompassing speed limits, load restrictions, height clearances, and vehicle dimension controls, which are essential for maintaining safe operations and preventing accidents in designated areas.

Other Signages & Markings

Barricades/ Fencing

Purpose

To protect workers, visitors, and the public from hazards such as excavations, roof openings, overhead work, hazardous zones, open manholes, landslides or restricted areas.

Recommended standards

Table 28: Recommended standards for Barricades/ Fencing

Aspect	Guideline / Best Practice
Height	<ul style="list-style-type: none"> • Trenches >1 m depth • Barricade \geq1 m high. • Other areas: minimum 1m recommended;
Placement	<ul style="list-style-type: none"> • Around excavations, roof openings, overhead work, hazardous zones, open manholes, landslides, and restricted areas. • Barricades should completely surround the trench, excavation, etc., wherever feasible. • Include safe access points for workers, clearly marked and away from hazard edges. • Position warning signs on all sides, especially near entrances and high-traffic areas.
Color Indication	<ul style="list-style-type: none"> • Red & White indicates Danger, marking areas with an immediate threat to life. It serves as an absolute prohibition and should be used to signal "Do Not Enter" zones like excavations or live electrical areas. The typical stripe pattern is diagonal alternating stripes at a 45° angle, with stripe width proportional to visibility requirements (commonly 50–100 mm). The stripes should be bold and continuous to ensure instant recognition. • Yellow & Black indicates Caution, warning of potential physical hazards that are not immediately life-threatening. This colour scheme is used to draw attention to temporary work zones, potential tripping hazards, or areas with heavy machinery, encouraging people to proceed with care. The stripe design is generally alternating diagonal or chevron patterns at 45°, with a recommended width of 50–75 mm. These patterns may also be applied vertically on posts, barriers, or floor markings to guide safe navigation.
Length / Spacing	<ul style="list-style-type: none"> • Barricades should form a continuous enclosure where feasible. If gaps exist, spacing must be small enough to prevent access.

Aspect	Guideline / Best Practice
Distance from Edge	<ul style="list-style-type: none"> • Trenches <3 m deep: Barricade should be placed at least 1 m from the edge. • Trenches ≥3 m deep: Barricade should be placed at min. of 1/3rd of the trench's depth from the edge, depending on soil stability and potential collapse risk.
Spacing Between Posts / Panels	<ul style="list-style-type: none"> • Posts or vertical supports spaced ≤2 m apart to ensure stability. • Horizontal rails, planks, or panels should form a continuous barrier to minimize gaps. • While using tape or rope in temporary situations, ensure it is taut and at a visible height (≈1 m).
Tape/ Barrier Tape	<ul style="list-style-type: none"> • Plastic or vinyl warning tape • Intended for temporary use and areas with lower or moderate risk • Commonly used to mark off work areas, caution zones, or restricted access temporarily. • Should not be used as sole barricade in high-risk or hazardous zones; should be used alongside physical barriers such as fences, railings, or barricades.
Signage / Pictogram	<ul style="list-style-type: none"> • Attach visible Warning and Danger signages at the entrances, corners, and along barriers.

Recommended Barricade Materials

Table 29: Recommended Material for Barricades

Material Type	Description / Use Case	Advantages	Notes
Plastic / PVC Barricades	Lightweight, portable, often hollow with the ability to be weighted (water/sand)	Easy to move, highly visible (can be orange/yellow), reusable	Suitable for short-term hazards, pedestrian control, or low-risk areas
Metal Fencing	Temporary or semi-permanent fencing panels, chain-link or welded mesh	Strong, durable, withstands impact, prevents entry	Best for high-risk areas, long-term worksites, or heavy machinery zones
Wooden Barricades / Railings	Timber planks, A-frame “sawhorse” style, often used for short-term hazards	Easy to construct on-site, cost-effective	Must be treated for weather resistance; not suitable for high traffic areas
Concrete Barriers / Jersey Barriers	Heavy concrete blocks used in traffic management or high-risk zones	Extremely strong, prevents vehicle intrusion, long-lasting	Typically for highways, excavation perimeters, or areas with vehicular traffic


Material Type	Description / Use Case	Advantages	Notes
Rope / Chain with Posts	Nylon rope, chain, or cable strung between posts or cones	Quick deployment, flexible, low cost	Only suitable for low-risk areas or to supplement other barricades; not sufficient alone for hazardous zones
Tape / Barrier Tape	Plastic or vinyl warning tape; Intended for temporary use and areas with lower or moderate risk; and commonly used to mark off work areas, caution zones, or restricted access temporarily.	Highly visible, inexpensive, temporary	Should not be used as sole barricade in high-risk or hazardous zones; should be used alongside physical barriers such as fences, railings, or barricades.


Key Considerations:

1. Visibility: Use bright colour and reflective surfaces where possible.
2. Stability: Barricades must resist tripping, wind, or accidental contact.
3. Durability: Select materials suitable for outdoor weather conditions or indoor use as required.
4. Safety: Avoid sharp edges or unstable structures that could cause injury.
5. Combination Use: Often, a combination of materials (e.g., PVC barricade with warning tape and signage) provides the best control.

Pictorial Examples

Table 30: Pictorial Examples of Barricades or Fencing

Barricades/ Fencing	Meaning
	<p>Red & White indicates Danger, marking areas with an immediate threat to life. It serves as an absolute prohibition and should be used to signal "Do Not Enter" zones like excavations or live electrical areas.</p>

Barricades/ Fencing	Meaning
	<p>Yellow & Black indicates Caution, warning of potential physical hazards that are not immediately life-threatening. This colour scheme is used to draw attention to temporary work zones, potential tripping hazards, or areas with heavy machinery, encouraging people to proceed with care.</p>

Safety/ Traffic Cones

Purpose

To guide, warn, or restrict movement in work zones, roadwork, or hazardous areas.

Recommended Standards

Table 31: Recommended Standard for Safety/ Traffic Cones

Aspect	Guideline / Best Practice
Height	<ul style="list-style-type: none"> • Minimum 750 mm (30 in) for highways • ≥ 710 mm (28 in) for general work zones
Color & Reflectivity	Fluorescent orange body with two white retro-reflective bands (6 in + 4 in, 2 in spacing).
Base & Stability	Wide, heavy rubber base to prevent tripping.
Placement / Spacing	<ul style="list-style-type: none"> • 3–6 m (10–20 ft); • Place before excavation, trench, utility, or pedestrian rerouting zones.
Night Use	Retroreflective bands required; supplement with flashing lights if necessary.

Key Notes: Cones should always be placed in visible locations with sufficient lead distance for approaching workers or traffic.



Figure 3: Pictorial Example of Safety Cones

Floor marking

Purpose

Floor marking plays a critical role in maintaining a safe and efficient workplace. By providing clear visual guidance, it:

- Protects people by marking hazards and separating pedestrians from moving equipment.
- Improves workflow by guiding traffic and supporting smooth material handling.
- Enhances emergency readiness by showing escape routes and keeping firefighting areas clear.
- Encourages discipline and efficiency through lean housekeeping (5S) practices.

Colour Conventions

Table 32: Colour conventions for Floor Marking

Colour	Meaning / Application
Yellow or Yellow/Black	Caution; physical hazards; trip or bump hazards.
Red	Fire-fighting equipment areas; keep-clear zones.

Green	Safe routes, first-aid, emergency equipment.
Blue	Mandatory action (e.g., PPE zone).
White	General guidance lines, pedestrian lanes.
Orange	Biological or machine guarding hazards (per some ANSI uses).


Key Note: Width is typically 50–100 mm (2–4 in). Ensure lines are continuous, clearly visible under normal and emergency lighting, and slip-resistant.


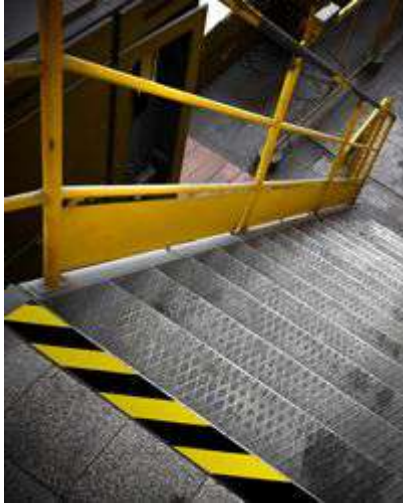

Implementation Tips


- Keep to a **single colour code across all facilities** to avoid confusion.
- Use arrows or footprints for direction of travel, particularly along evacuation paths.
- For high-traffic or wet areas, choose **epoxy or thermoplastic tapes** with anti-slip texture.
- Inspect and refresh markings on a planned cycle — fading undermines compliance and situational awareness.

Pictorial Examples

Table 33: Pictorial Examples of Floor Marking

Floor Marking	Meaning
	<p style="text-align: center;">Use of Mechanical Equipment:</p> <p>Aisles and passageways shall be kept clear and in good repair, with no obstruction across or in aisles that could create a hazard.</p> <p>Permanent aisles and passageways shall be appropriately marked.</p>

Floor Marking	Meaning
	<p>General Environmental Controls:</p> <p>Red shall be the basic color for the identification of fire protection equipment and apparatus. Yellow shall be the basic color for designating caution and marking physical hazards.</p>
	<p>Means of Egress: A continuous, safe, and unobstructed path for people to exit a building or area and reach safety during an emergency</p>
	<p>Letter of Interpretation:</p> <p>The lines used to delineate aisles may be of any color so long as they clearly define the area considered as aisle space. The lines may be composed of dots, square, strip or continuous.</p> <p>The recommended width of aisle markings varies from 2 in. to 6 in., therefore any width 2 in. or more is considered acceptable.</p>

Floor Marking	Meaning
	<p>A solid and continuous stripe shall be applied to the horizontal leading edge of each step and shall extend the full length of each step. Perimeter and floor mounted demarcation lines shall be placed within 4 in. of the wall and extend to within 2 in. of the markings on the leading edge of landings. Demarcation lines shall be 1 in. to 2 in. wide with interruptions not exceeding 4 in.</p>

Globally Harmonized System (GHS)

The Globally Harmonized System (GHS)² is an internationally standardized approach for classifying and communicating the hazards of chemicals. Its primary objective is to enhance workplace safety, support environmental protection, and ensure that users across jurisdictions receive consistent information on chemical risks.

GHS labels incorporate written, printed, or graphic elements that must be clear, legible, and prominently displayed. They are affixed to the immediate container or package of any hazardous chemical and must be presented in English, with other languages added where appropriate to meet local or workforce needs. Labels must be reviewed and updated within six months whenever new, significant information about the chemical's hazards becomes available. There are different types of physical, health, and environmental hazards.

1. **Physical Hazards:** There are 17 Physical Hazards:
 - a. Explosives
 - b. Flammable gases
 - c. Aerosols and chemicals under pressure
 - d. Oxidizing gases
 - e. Gases under pressure
 - f. Flammable liquids
 - g. Flammable solids
 - h. Self-reactive substances and mixtures
 - i. Pyrophoric liquids
 - j. Pyrophoric solids
 - k. Self-heating substances and mixtures
 - l. Substances and mixtures which, in contact with water, emit flammable gases
 - m. Oxidizing liquids
 - n. Oxidizing solids
 - o. Organic peroxides
 - p. Corrosive to metals
 - q. Desensitized explosives

²GHS Classification Summary (Rev. 10, 2023). PubChem — GHS Classifications. United Nations Economic Commission for Europe; US National Library of Medicine (NCBI), PubChem. Available at: <https://pubchem.ncbi.nlm.nih.gov/ghs/>

2. Health Hazards: There is 10 Health Hazards:
 - a. Acute toxicity
 - b. Skin corrosion/irritation
 - c. Serious eye damage/eye irritation
 - d. Respiratory or skin sensitization
 - e. Germ cell mutagenicity
 - f. Carcinogenicity
 - g. Reproductive toxicity
 - h. Specific target organ toxicity – Single exposure
 - i. Specific target organ toxicity – Repeated exposure
 - j. Aspiration hazard

3. Environmental Hazards: There are 2 environmental hazards:
 - a. Hazardous to the aquatic environment (acute and chronic)
 - b. Hazardous to the ozone layer

Hazard Class Pictograms



Figure 4: Hazard Class Pictograms

Core Elements of a GHS Label

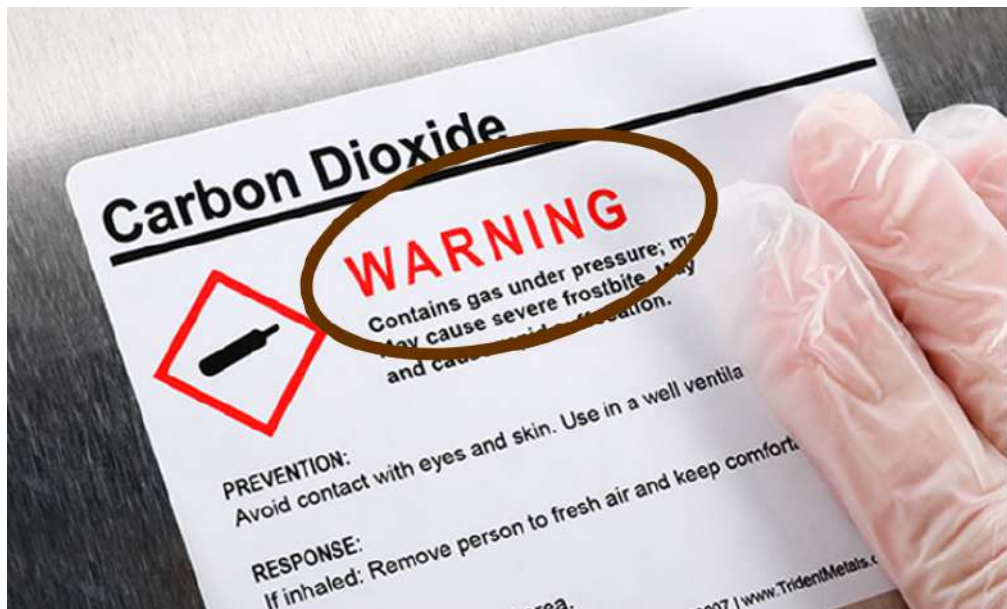
A complete GHS label includes six mandatory elements, each serving a distinct communication function:

1. Product Identifier

- Specifies the name, code, or batch number of the chemical.
- Enables users to match the substance with its Safety Data Sheet (SDS).

2. Signal Words

- Indicate the relative severity of a hazard and draw attention to safety concerns.
- **Warning:** Used for less severe hazards.
- **Danger:** Used for more serious or life-threatening hazards.



- 3. **Hazard Statements:** It describes the nature and degree of the risks associated with a chemical, covering its physical, health, or environmental effects. For examples:
 - “Causes serious eye damage through prolonged or repeated exposure.”
 - “Toxic if inhaled.”
- 4. **Precautionary Statements:** It provides guidance on preventing or minimizing harm during handling, storage, transport, or emergency response. For example:
 - “Keep away from heat, sparks, and open flames. Store in a cool, well-ventilated place.”
 - “Do not eat, drink, or smoke when using this product.”

5. **Pictograms:** These are graphic symbols enclosed in a red diamond that visually communicate hazard types, such as flammability, toxicity, corrosivity, or environmental impact.
6. **Supplier Identification:** It includes the manufacturers or supplier's name, address, and telephone number, ensuring accountability and enabling users to seek further information.

Labelling Guidelines

GHS labels communicate hazard information to users, workers, and emergency responders. Proper labelling ensures safety, compliance, and effective hazard communication. Each chemical or hazardous product must have the following elements on its container:

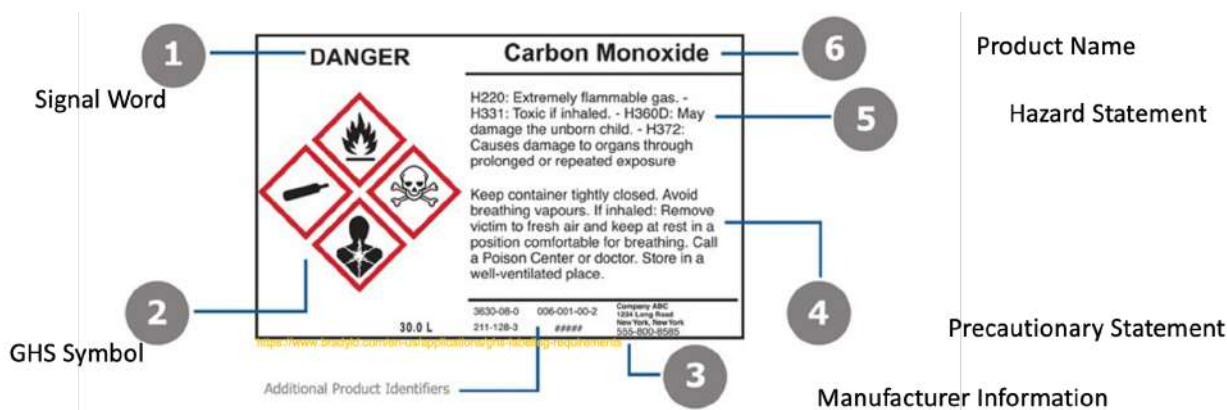


Figure 5: Core Elements of a GHS Label

When chemicals are transferred from their original container to secondary containers, GHS mandates:

1. Labelling the Secondary Container
 - Must carry the same hazard information as the original container.
 - Minimum: product identifier and appropriate hazard pictograms or signal words.
 - Ideally, full GHS label including hazard and precautionary statements.
2. Practical Considerations
 - Use durable labels that resist chemical exposure.
 - Ensure legibility (size, contrast, language).

- Update labels immediately if product characteristics change.
3. Pre-printed vs. Temporary Labels
- Pre-printed labels: preferred for frequent use or bulk containers.
 - Temporary labels: acceptable for short-term transfers, but must remain clear and complete.

Pictorial Examples



Figure 6: Pictorial example of a GHS Label

Design and Placement

Design Specification

The effectiveness of a safety sign depends on both its **design** and **placement**. A well-designed sign ensures quick recognition, while correct placement enhances visibility and compliance. Signs should combine symbols, text, and colours in a way that communicates hazards or instructions clearly and consistently.

Font Specifications

- Use **simple, sans-serif fonts** (e.g., Helvetica, Arial, Verdana) for maximum legibility.
- Avoid decorative or italic fonts that reduce readability.
- Text should be in **UPPER case** for signal words (e.g., *DANGER*, *WARNING*), but **sentence case or mixed case** for instructional text (e.g., *Wear safety goggles*).

Standard Sizes and Viewing Distances

The legibility and effectiveness of safety signages depend on choosing the correct letter height, pictogram size, and overall sign dimensions relative to the intended viewing distance. Proper sizing ensures that workers can quickly recognize and respond to the sign, even in busy or cluttered environments.

Key Parameters

- **Viewing Distance** → The maximum distance from which a sign should be legible.
- **Minimum Letter Height** → Ensures text can be read clearly.
- **Minimum Pictorial Height** → Guarantees that symbols remain recognizable.
- **Typical Sign Size** → Standardized dimensions that align with distance requirements.
- **Mounting Height** → Placement above floor level to ensure visibility at eye level or higher.

The table 34 shows the standard sizes and recommended viewing distances for safety signs, including minimum letter and pictogram heights, typical sign dimensions, and mounting heights.

Table 34: standards size and viewing distances

Viewing Distance	Minimum Letter Height	Minimum Pictorial Height	Typical Sign Size	Mounting Height
4–6 m	20–25 mm	60-90 mm	Small – 250 × 180 mm ²	Eye Level 1.5-1.7 m
6–12 m	30–40 mm	90-180 mm	Medium – 350 × 250 mm ²	1.8 m or higher
12–18 m	50–60 mm	180-270 mm	Large – 600 × 450 mm ²	1.8 m or higher
>18 m	≥75 mm	≥270 mm	Oversized / Traffic/ custom (900 × 600 mm ² or larger)	≥2.0 m

Rule of thumb

- 5 mm of letter height and 15mm of Pictorial diagram for every meter of viewing distance³.
- In visually cluttered settings, high-activity zones, or locations with inadequate lighting, it is recommended to be 2 to 4 times larger than minimum requirement to ensure legibility and compliance with safety requirements.

Material Selection

Safety signs should be weather-resistant, non-reflective, and fade-resistant. Recommended materials include aluminum, PVC, acrylic, or other durable plastics. For enhanced visibility during power outages, photoluminescent signs are recommended for emergency exits and evacuation routes.

Safety Sign Materials and their Applications

This table summarizes the main types of safety sign materials, retroreflective, photoluminescent, fluorescent, and combination materials, explaining how they work, their best uses, and any limitations. It helps in selecting the appropriate material for different workplace environments and safety needs.

³ As per the standard ANSI Z535.2

Table 35: Safety Sign Materials and their Applications

Material Type	How It Works	Best For	Limitations / Notes
Retroreflective	Uses tiny glass beads or microprisms to return light directly to its source, making the sign appear to “glow” when illuminated.	Nighttime visibility for road signs, warehouse safety signs, or areas with vehicle traffic.	Visibility depends on a directed light source (e.g., headlights). Reflectivity varies by ASTM grade: <ul style="list-style-type: none"> ● Engineer Grade – low reflectivity, non-critical uses ● High-Intensity Prismatic (HIP) – high reflectivity, common for safety/traffic signs ● Diamond Grade – highest reflectivity, critical safety areas
Photoluminescent (Glow-in-the-Dark)	Absorbs ambient light (sunlight or artificial) and slowly releases it in darkness.	Emergency exits, fire extinguishers, and escape routes, especially during power outages.	Glow intensity fades over time and requires prior light exposure to “charge.” Typically glows long enough for safe evacuation.
Fluorescent	Absorbs ultraviolet (UV) light and re-emits it as visible light, making the material appear brighter and more vivid.	Maximizing daytime visibility , warning signs, high-visibility clothing, and areas with low-light conditions (dusk/dawn).	Does not glow in darkness; requires natural or artificial light to be effective.
Combination Materials	Combines two or more technologies, e.g., fluorescent background + retroreflective coating.	24/7 visibility in industrial sites, building exteriors, major roadways, or facilities with round-the-clock operations.	More expensive, but highly effective for continuous visibility day and night.

Key Notes

- **Retroreflective:** Best for visibility when illuminated by a directed light source (e.g., headlights). Visibility depends on the light source.
- **Photoluminescent:** Glows in the dark after absorbing ambient light; essential for emergency exits and areas with potential power failure.
- **Fluorescent:** Highly visible in daylight and low-light conditions; requires ambient light to be effective.

- **Combination Materials:** Combine technologies (e.g., fluorescent + retroreflective) for maximum 24/7 visibility.
- **Selection Tip:** Choose materials based on hazard type, expected lighting, and time of day for optimal safety.

Safety Sign Material Performance by Lighting Condition

This table shows which safety sign materials perform best under different lighting conditions (daytime, low light, darkness, or darkness with a directed light source). It guides the selection of materials to ensure maximum visibility and effectiveness in all lighting scenarios.

Table 36: Safety Sign Material Performance by Lighting Condition

Lighting Condition	Best Material(s)	Why/ Notes
Normal Ambient Light (Daytime)	Fluorescent, Retroreflective	Fluorescent colors are highly vivid and attract attention; retroreflective materials also provide good contrast and clear visibility in daylight. Key Note: Both materials perform well; fluorescent offers maximum daytime impact.
Low Light (Dusk, Overcast)	Fluorescent, Retroreflective	Fluorescent pigments remain bright; retroreflective materials begin to enhance visibility when light is present. Key Note: Both maintain good visibility; retroreflective effectiveness increases as directed light is applied.
Darkness (No Ambient Light)	Photoluminescent	Glows on its own after absorbing ambient light; essential for emergency situations such as power failures. Specifications: ≥ 15 mcd/m ² after 10 min; ≥ 2 mcd/m ² after 60 min. Key Note: Only photoluminescent signs are effective without a light source.
Darkness (with Directed Light Source)	Retroreflective	Sign reflects light from flashlights, headlights, or other-directed sources, appearing bright and highly visible. Key Note: Provides superior visibility and distance performance in complete darkness when illuminated.

Key Notes

- Normal Daylight: Fluorescent and retroreflective materials both perform well; fluorescent provides the most vivid daytime visibility.

- Low Light (dusk/overcast): Fluorescent remains vibrant; retroreflective starts enhancing visibility when light sources are present.
- Darkness (no ambient light): Only photoluminescent signs are effective independently; they glow after absorbing light.
- Darkness (with directed light): Retroreflective signs become highly visible when illuminated by headlights, flashlights, or other-directed light sources.
- Practical Tip: Match material to lighting conditions to ensure signs are readable at all times, especially for emergency or hazard situations.

Placement

Placement Guidelines

- **Pictogram on Top or Left** → Since people naturally scan from left to right and top to bottom, placing the symbol first ensures instant recognition.
- **Text Below or Right** → Supporting words or instructions should follow the pictogram to clarify meaning where necessary.
- **Consistency is Key** → Use a standardized format across the workplace so workers can easily interpret signs in different areas.
- **Contrast & Spacing** → Ensure good contrast between background and text/symbols, and avoid overcrowding so the message remains legible from a distance.
- **Hierarchy of Information** → Present information in the order of importance: **Signal Word** → **Symbol** → **Text**.

Point to remember

- Install the signs as close as practicable to the hazard it addresses (e.g., on machinery guard, near excavation edge).
- Position the signs before the hazard along the line of approach—never after.
- Signs must be directly visible to approaching personnel; avoid placing behind doors, racks, or moving objects.

- Avoid clutter: keep at least one sign-width between adjacent signs.
- Only place signs that relate to the specific hazard in the area where the hazard is identified (on machinery, near the excavation, etc)

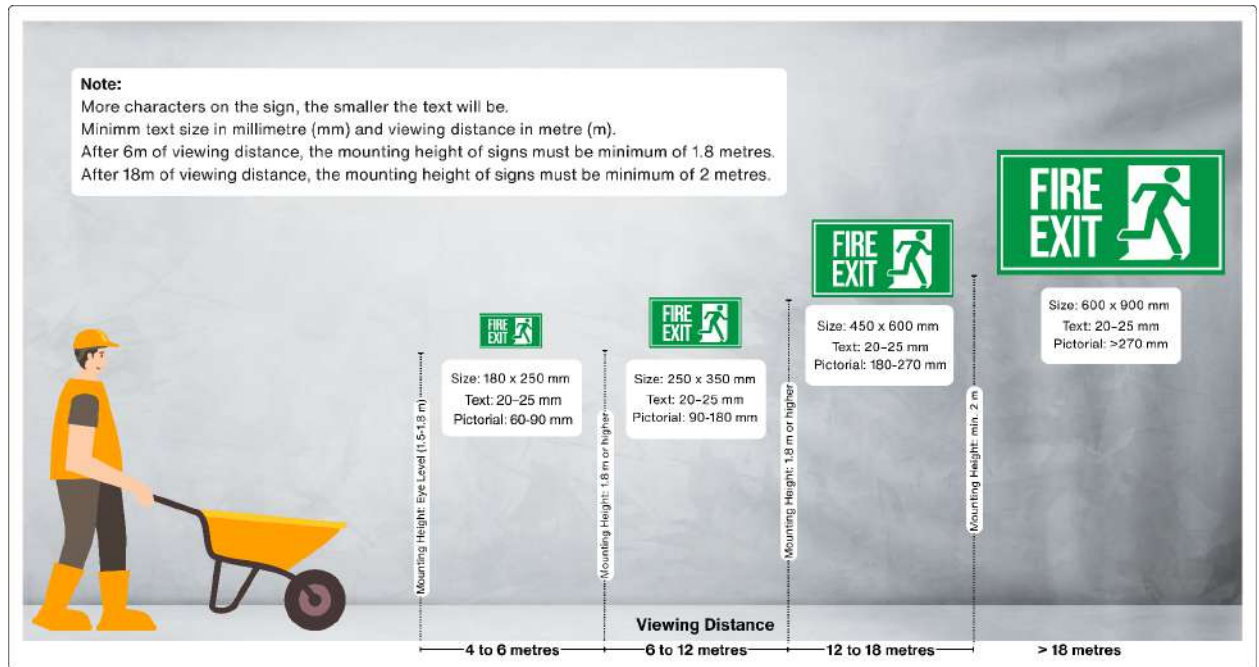


Figure 7: Standard sizes and recommended viewing distances for safety signs



Locations

- **Entry/exit points** – emergency instructions, PPE requirements, restricted access.
- **High-risk zones** – moving equipment, excavation, electrical rooms.
- **Escape routes** – directional arrows, low-location lights, and high-mounted photoluminescent markers.
- **Common areas** – general reminders, housekeeping, first-aid points.

Correct vs Incorrect Placement of Safety Signages

Text should not be incorporated into a signboard. If a text explanation is deemed necessary, then it should be incorporated by means of a supplementary signboard as shown in the diagrams below. Where doubt could exist as to the meaning of a graphical symbol used on a safety signboard, a supplementary signboard containing appropriate text should supplement the safety signboard. However, if the meaning is clear by use of a pictogram or symbol alone, then a supplementary signboard should not be used.

Table 37: Correct vs Incorrect Placement of Safety Signages

WRONG	CORRECT	Reason
		<p>Signboard with associated text on supplementary signboard. These can be located together on the same “carrier”.</p>




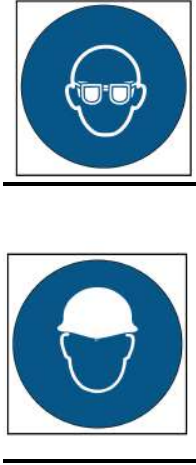
WRONG	CORRECT	Reason
		<p>Two safety messages should be shown by two separate signboards (with additional supplementary signboards as necessary) or the two signboards and supplementary signboards can be combined on one carrier as shown.</p>
		<p>Two safety messages should be shown by two separate signboards with each supplementary</p>



Figure 8: Example of Safety Signage

References

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