



Introduction to Physical Hazards

AGENDA

AIMS & OBJECTIVES

INTRODUCTION TO PHYSICAL HAZARDS

SIGNAGE, LABELLING AND PLACARDING

COMMON OCCURENCES

PROTECTING YOURSELF FROM PHYSICAL HAZARDS

Aims & Objectives



The aim of this session is to introduce learners to physical hazards and to substances that express these

Objectives

- Identify what physical hazards are
- Describe the various physical hazards substances may have
- Discuss common substances and materials that express physical hazards (over other hazards)
- Explore possible protection methods against physical hazards

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What are Physical Hazards?

Hazards of a substance, article or product that express particular physical or chemical properties that can cause significant damage to people, property or the environment.

These include:

Explosive
material

Gases under
pressure

Combustible
dusts

Flammable
solids

Pyrophoric
substances

Water-
reactive
substances

Flammable
Liquids

Slop-over /
boil-over

Flammable
vapour / gas

Oxidising
materials

Oxygen
enriched
atmospheres

Cryogenic
substances

How do these differ to Health hazards?

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Signage, labelling & placarding

ADR / UN Classes



Explosives



Non-Flammable Gas
Non-Toxic Gas



Flammable Gas



Flammable Liquid



Dangerous
when wet



Flammable Solid



Spontaneously
Combustible



Oxidizer



Organic Peroxide

GHS



Explosive



Flammable
Pyrophoric



Oxidizing



Irritant



Compressed Gas
Liquefied Gas



Corrosive to metals??

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Common examples

- Fuels
- Fuel gases
- Cylinders
- Li-ion battery technology
- Alternatively fuelled vehicles
 - Batteries, Hydrogen, Compressed Natural Gas (CNG) etc.
- Fertiliser
- Lubricants
- Oil / solvent drums
- Wood / coal / sugar / metal dusts
- Metal works – foundries, processing plants
- Plastic manufacturing – organic ingredients
- Munitions

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Dealing with Physical Hazards – Management of...

Vapour

Temperature

PPE

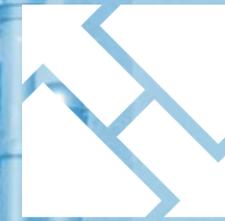
Crew briefing

Cordon /
public safety

Equipment

Unaffected
substances

Contamination



NCEC
HAZMAT
ACADEMY

Any Questions?