

# Safe Transport of Cylinder Gases\* and Portable Liquid Containers

## Gas can leak in the vehicle

- Leaks of gas in an enclosed vehicle are dangerous.
- Leaks can occur from cylinder valves leaking, or being knocked open.



- Do not rely on regulators or other equipment to shut off the gas – always use the cylinder valve.
- Ensure the valve protection cap or guard is in place.

## Cylinders can move in the vehicle

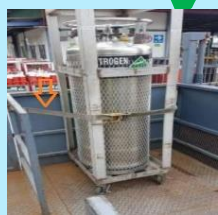
- Cylinders can cause injury if they move while the vehicle is in motion.
- Any unrestrained cylinder is a hazard.



- Ensure cylinders are evenly loaded and secured enough to prevent movement during motion or emergency braking.
- Cryogenic liquid containers must be secured in an upright position.

## Liquefied gases have extra hazards

- Liquefied gases leaking from relief valves or toppled containers quickly evaporate creating a lot of gas.
- Spills of cryogenic liquids onto metal surfaces, such as other cylinders, can make it brittle and shatter.



- Use a well ventilated vehicle – ideally an open or flatbed truck, or a vehicle with a gas area sealed from the driver's compartment.
- Never leave cylinders in an unventilated vehicle.

## Cylinders can be heavy and difficult to handle

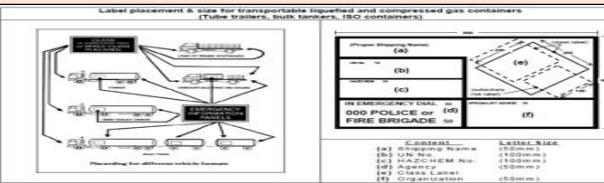
- Most full cylinders of gas weigh over 25kg and can go up to 100kg.
- During loading or unloading, injuries can occur from falling cylinders and from incorrect manual handling.



- For heavy cylinders, use mechanical aids or get help to load and unload the vehicle.
- Use safety shoes with meta tarsals, gloves and eye protection to help prevent injury.

## Gas Hazards

- Labels show the hazards from the gas and are the only way to positively identify the contents of a cylinder or container.
- When transporting cylinders "at work" check how the Dangerous Goods Transport Regulations or Local Country Regulation apply (Ref: **AIGA 017, Labelling of Gas Containers**)



- When transporting cylinders only for domestic use by a private individual, the regulations do not apply, but one needs to ensure a "duty of care" to transport gases safely.

## Emergency Actions For Leaking Gas

For all gases:

- Stop the vehicle as soon as possible, turn off the engine and get out.
- Upon leaving the vehicle, keep the door open, to let the gas escape.
- Keep away from the vehicle and try to keep members of the public away.
- Leave gas to safely vent to atmosphere.
- If a leak is suspected in a parked vehicle, do not get into it.

In addition, for Flammable gases:

- Minimize potential ignition sources and do not smoke.
- Call the emergency services – inform them about the vehicle location and the number and type of cylinders involved.
- If a leak is suspected in a parked vehicle, do not try to enter the vehicle or activate remote locking.

Call your gas supplier for advice ( Ref: **AIGA 017, Labelling of gas containers** )

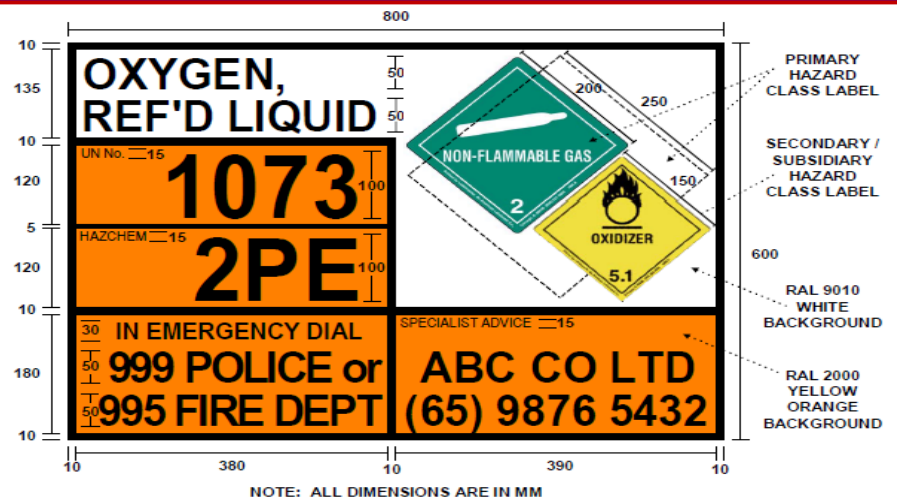
## Personal Protective Equipment(PPE)

- Minimum requirements are Safety footwear, cryogenic gloves, eye protection (face shield with safety glasses), Protective clothing or overalls. (Ref: **AIGA 066, Selection of personal protective equipment**)



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- Risk assessments shall be conducted and documented in each work area to assess the risks related to the process, relevant and activities associated with the work area. Risk assessments should be reviewed when changes are made or following accidents or incidents in a work area that could impact PPE selection



Note: \* This poster is covering the Atmospheric gases only.