

Hazard Alert

Transport of flammable gas cylinders



Government
of South Australia

SafeWork SA

Summary of incident

A person received serious burn injuries when an LPG barbeque cylinder kept in a car boot on a hot day (34°C) for about one hour, released gas which was subsequently ignited when the boot door was opened and the boot light came on.

Possible causes

- Leak of flammable gas in a poorly ventilated area and the presence of an ignition source.
- Gas leak can be caused by overfilling or storage in hot temperatures (55°C - 60°C). Heat may cause the pressure relief device to operate and release the content of a cylinder.
- When a liquefied gas is released, it vaporises and creates large amounts of gas which can create an explosive atmosphere in a vehicle.
- Unsecured cylinders can cause damage to people and vehicles and can lead to violent cylinder rupture in transport.
- Faulty cylinder.

Action required

- Cylinders must be in good condition prior to being transported.
- Cylinders must be secured in an upright position to prevent movement and ensure that any relief device is in direct contact with the vapour space of the cylinder.
- Do not store cylinders in a vehicle and unload cylinders without delay after arrival at the destination (ventilation decreases considerably when the vehicle is stopped).

- Cylinders should not be left unattended inside the vehicle, particularly during hot weather.
- In commercial vehicles, flammable gas cylinders may be carried in closed compartments (e.g. curtain sides) separated from the driver cabin, provided there is sufficient ventilation in the compartment. An open vehicle with sides is preferable.
- If a van is the only option then it should be fitted with a separate, gas-tight cylinder storage cabinet ventilated to the outside, and installed and maintained in accordance with the manufacturer's instructions.
- Do not smoke or have any naked flames present while transporting cylinders.

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