

# SAFETY ALERT

## HANDLING CYLINDERS AFTER NATURAL DISASTER EXPOSURE

This safety alert is issued to provide recommended practices for handling cylinders that have been exposed to a natural disaster event such as flooding, hurricane, tornado, fire, earthquake, etc. The devastation caused by these events can result in damaged gas cylinders and related equipment, which can affect their integrity and safe operation.

Compressed gas cylinders contain a variety of products that can present a range of hazards such as flammability, oxidizers, toxicity, asphyxiation, and more. The cylinder contents are also stored under pressure, which can cause the contents to leak if the container or related equipment is damaged. Cylinders that are damaged or leaking can pose serious hazards and must be addressed only by trained emergency responders or the cylinder supplier.

**WARNING: UNTRAINED PERSONS SHALL NOT ATTEMPT TO VENT OR HANDLE DAMAGED CYLINDERS.**

Natural disasters can result in exposing a cylinder to a variety of hazardous conditions that include floodwater submersion; impact from debris; exposure to foreign contaminants like mud, sewage, and oil or grease; damage from falling, etc. If cylinders have been exposed to adverse conditions such as those listed previously, contact emergency responders or the cylinder supplier for further instruction. Cylinders with obvious significant damage or that are leaking should only be addressed by emergency responders with HAZMAT training or the cylinder supplier.

Contact information for the cylinder supplier is listed on the label as shown in Figure 1a. If a label is not present, the cylinder neckring shown in Figure 2 can be used to identify the cylinder supplier.

Cylinders collected from natural disaster areas must be separated according to their hazard class. Oxidizing and flammable gases should be kept at least 25 ft apart. The cylinder label provides information on its contents and hazards. The transportation labels shown in Figures 1a - 1d provide a quick visual identification for the gas hazard class. Propane (barbeque) cylinders should be treated as flammable and segregated with other flammable gases. Cylinders without a label should be segregated and identified by the supplier when possible.

For more detailed information on the safe handling and storage of cylinders, see CGA P-1, *Standard for Safe Handling of Compressed Gases in Containers* and NFPA 55, *Compressed Gases and Cryogenic Fluids Code* [1, 2].

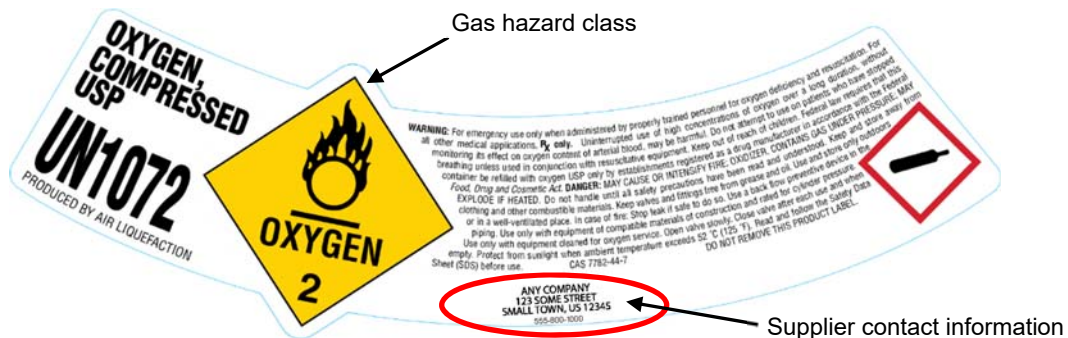


Figure 1a—Example label for oxidizer hazard class

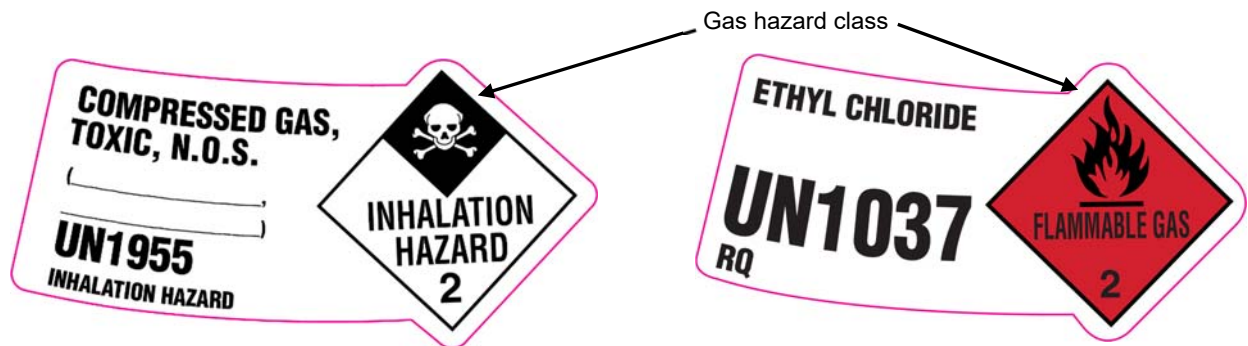


Figure 1b—Example label for toxic hazard class

Figure 1c—Example label for flammable hazard class

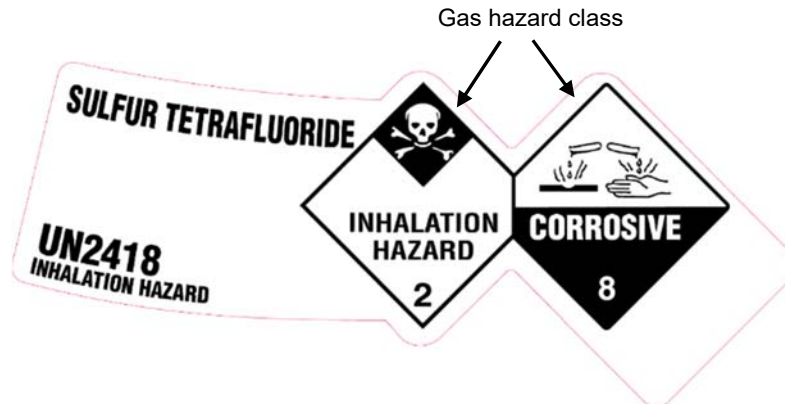


Figure 1d—Example labels for toxic and corrosive hazard classes

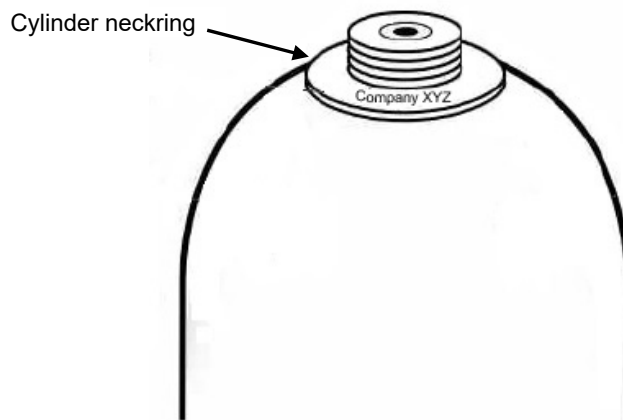


Figure 2—Example of cylinder neckring with supplier name

## References

Unless otherwise specified, the latest edition shall apply.

[1] CGA P-1, *Standard for Safe Handling of Compressed Gases in Containers*, Compressed Gas Association, Inc. [www.cganet.com](http://www.cganet.com)

[2] NFPA 55, *Compressed Gases and Cryogenic Fluids Code*, National Fire Protection Association, Inc. [www.nfpa.org](http://www.nfpa.org)

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Safety and Health Committee

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