



COMPRESSED GAS ASSOCIATION, INC.

SAFETY BULLETIN

SB-41—2013

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MAINTENANCE OF BULK DELIVERY EQUIPMENT CONTAINING CLASS 2 HAZARDOUS MATERIALS

The safest condition for performing repair and maintenance on bulk delivery equipment containing Class 2 hazardous materials is when it is empty, depressurized, and inerted.

Companies that repair or maintain delivery equipment that has not been unloaded or emptied, depressurized, and inerted shall address as appropriate the hazards inherent with placarded Class 2.1 flammable gas; Class 2.2 nontoxic, nonflammable gas; Class 2.2 (5.1) oxidizing gas; and Class 2.3 toxic gas before beginning such repair and maintenance. With any bulk delivery equipment containing a Class 2 hazardous material, there is the potential for product leakage into the atmosphere from a valve, pipe fitting, piping component, or damaged container. The containers also include one or more pressure relief devices that will vent the contents to the atmosphere due either to a normal rise in pressure in the container or a premature failure of the device. The hazards associated with the release of a Class 2 hazardous material include but are not limited to:

- electrical;
- flammability;
- toxicity;
- oxygen-enriched atmospheres;
- asphyxiation;
- release of product; and
- leakage.

Bulk delivery equipment that has not been emptied and inerted shall remain marked and placarded. The shipping papers shall be maintained with the hazardous materials container.

WARNING: Failure to follow these precautions can result in fire, explosion, toxic exposure, asphyxiation, serious injury, or death.

Common Class 2 gases transported in bulk delivery equipment include but are not limited to the following:

- ammonia;
- argon;
- carbon dioxide;
- carbon monoxide;
- carbon tetrafluoride;
- compressed natural gas;
- ethylene;
- helium;
- hydrogen;
- hydrogen chloride;
- liquefied natural gas;

- methane;
- neon;
- nitrogen;
- nitrogen trifluoride;
- nitrous oxide;
- oxygen; and
- propane.

For a more complete list of Class 2 gases, see *CGA Handbook of Compressed Gases* [1].

For guidance on cylinder delivery equipment, see CGA SB-21, *Recommended Practice for Removing Hazardous Material Containers During Repair and Maintenance of Cylinder Trucks and Trailers* [2].

References

Unless otherwise specified, the latest edition shall apply.

[1] *CGA Handbook of Compressed Gases*, Compressed Gas Association, Inc., 14501 George Carter Way, Suite 103, Chantilly, VA 20151. www.cganet.com

[2] CGA SB-21, *Recommended Practice for Removing Hazardous Material Containers During Repair and Maintenance of Cylinder Trucks and Trailers*, Compressed Gas Association, Inc., 14501 George Carter Way, Suite 103, Chantilly, VA 20151. www.cganet.com

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