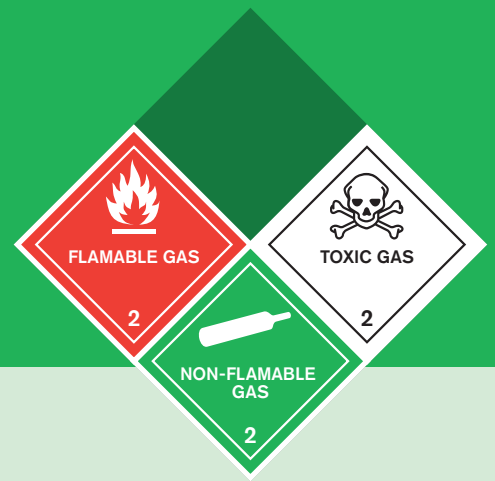




# Dangerous Goods



## Class 2: Gases





### Risks



### Which cargoes fall under this Class?

Label	Class 2 division	Examples
 2.1	<b>Division 2.1</b> Flammable gases – can ignite in air or contribute to an existing fire, and tend to be vulnerable to temperature variations.	Acetylene, aerosols, camping gas, cigarette lighters, butane, hydrogen, liquid petroleum gas (LPG), natural gas (methane), propane, most aerosols (spray paint, deodorants).
 2.2	<b>Division 2.2</b> Non-flammable, non-toxic gases – if exposed to air can cause asphyxiation, suffocation, oxidisation (which can contribute to an existing fire) and can explode if highly pressurised.	Carbon dioxide, helium, nitrogen, oxygen, argon.
 2.3	<b>Division 2.3</b> Toxic gases – can cause serious injury or death to humans or animals if inhaled.	Chlorine, fluorine, methyl bromide, hydrogen fluoride, sulphur dioxide and hydrogen sulphide.

The table here highlights key takeaways for Class 2 cargoes.

Packing		
DO...		DON'T...
<ul style="list-style-type: none"> <li>Use gas tanks or cylinders consistent with manufacturer's instructions</li> </ul>		<ul style="list-style-type: none"> <li>Use damaged tanks or cylinders</li> <li>Pack a different gas in tank or cylinder without cleaning it as per manufacturer's recommendations</li> <li>Overfill tanks or cylinders</li> <li>Repackage Class 2 cargoes without specialist advice</li> </ul>
Storing		
DO...		DON'T...
<ul style="list-style-type: none"> <li>Store in well-ventilated and, where required, temperature-controlled storage facilities</li> <li>Store with labels forward, heavy cargoes at bottom, and correct orientation (arrows up)</li> <li>Inspect stored cargo regularly to ensure condition remains stable and safe</li> <li>Alert the designated dangerous goods competent person if any problems, such as a suspected leak</li> <li>Ensure all employees involved in storing are trained in emergency response procedures</li> </ul>		<ul style="list-style-type: none"> <li>Store near sources of heat, such as a radiator</li> <li>Store without suitable leak detectors</li> <li>Store old or uncollected cargoes, which can become unstable over time</li> </ul>
Transporting		
DO...		DON'T...
<ul style="list-style-type: none"> <li>Ensure good ventilation during transport, such as in open trailers or containers</li> <li>Ensure all staff involved in transport have the relevant dangerous goods awareness training</li> <li>Contact the designated dangerous goods competent person if you have any questions or queries about transport</li> <li>Pack tanks and cylinders tightly and securely to avoid movement during transport</li> <li>Familiarise yourself with and adhere to the relevant chapters of the CTU Code</li> </ul>		<ul style="list-style-type: none"> <li>Allow any ignition sources near Division 2.1 cargoes during transport</li> <li>Transport Division 2.1 and 2.3 cargoes if classed as 'high consequence' without a security plan in place</li> <li>Transport Class 2 cargoes with any other cargoes that may react with them</li> </ul>
Remember		
ALWAYS...		NEVER...
<ul style="list-style-type: none"> <li>Ensure Class 2 cargoes are stored under relevant temperature requirements</li> <li>Communicate clearly with the entire supply chain</li> <li>Maintain a documented emergency response plan that is regularly tested and, ideally, developed in collaboration with the cargo manufacturer</li> </ul>		<ul style="list-style-type: none"> <li>Throw, drop, roll, slide or drag Class 2 cargoes at any point in the supply chain</li> <li>Ignore abandoned cargo – it must be safely removed and disposed of</li> </ul>