

## Health and Safety Information

### General Guidelines

Alphasense electrochemical toxic gas sensors are sealed units containing an aqueous solution of Sulfuric Acid ( $H_2SO_4$ ), Polytetrafluoroethylene (PTFE), Polycarbonate and small quantities of Carbon (C), Platinum (Pt) and other precious metals.

According to the Health and Safety at Work Act (1974) and COSHH Regulations (1988) these sensors are not considered a chemical hazard in normal use. Alphasense toxic gas sensors are only treated as a chemical hazard if leakage occurs. These notes should be observed to avoid any potential hazards.

### Shipping

There are no general requirements for special labelling or packaging, but we advise that you check for any specific local regulations.

Alphasense toxic gas sensors have been tested and conform to IATA ID No. UN 2800 (Section 4.5, paragraph 67) and to Code of Federal Regulations 49: Transportation (revised October 1, 2005) Exception 159. Alphasense toxic sensors are classified as "batteries wet non-spillable".

### Storage and Usage

Alphasense toxic gas electrochemical sensors should only be used for their designated application: the measurement of toxic gases in the range of gas concentrations specified in the product data sheet. These sensors must not be exposed to temperatures, humidities and pressures outside the environmental range quoted on the current data sheet.

Toxic gas sensors should be stored in their containers in a clean area, between 0 and 20°C to ensure maximum shelf life. Toxic gas sensors have a maximum storage life of 6 months.

### Action in the Event of Exposure

Should leakage of electrolyte (sulfuric acid) occur as a result of misuse, incorrect operation, manufacturing error, physical damage, etc. then wear protective gloves when cleaning any spills. Should electrolyte contact skin then the affected area should be washed thoroughly with copious water and medical advice sought if there has been any contact with the eyes or mouth. If connected to any electrical equipment, the sensor should be immediately removed.

### Disposal

At the end of their working life, Alphasense toxic gas electrochemical sensors must be disposed of in an environmentally safe manner, in compliance with relevant local waste disposal and environmental legislation. The sensors may contain trace quantities of a toxic compound (precious metals and their oxides) but best practice recommends that they should not be disposed of in normal trade waste. Also, sensors must not be burnt due to the potential risk of evolution of toxic fumes, especially from PTFE. Alphasense offers a disposal service for used sensors in the UK, available by prior arrangement only. Since these sensors are classified as special waste by European law, sensors may only be shipped to Alphasense for disposal via Waste Transfer Stations, in line with European Hazardous Waste Directive 91/689/EEC. Contact us for further information.