

Health and Safety Information

General Guidelines

Alphasense electrochemical oxygen gas sensors are sealed units containing an aqueous solution of potassium acetate ($KC_2H_3O_2$) and small quantities of Platinum (Pt), Carbon (C), Lead (Pb) and Lead Oxide (PbO), with trace amount of Antimony (Sb).

Capillary oxygen sensors using lead are exempt from ROHS legislation.

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 oxygen sensors are only treated as a chemical hazard if leakage occurs. These notes should be observed to avoid any potential hazards.

Shipping

Alphasense oxygen 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 oxygen sensors are classified as "batteries wet nonspillable".

Storage and Usage

Alphasense oxygen electrochemical sensors should only be used for their designated application i.e. measurement of oxygen in the range 0 to 30% volume in typical OEM instruments. These sensors must not be exposed to temperatures, humidities and pressures outside the environmental range quoted on the current data sheet.

Oxygen sensors should be stored in their containers, between 0 and 20°C, to ensure maximum shelf life. Oxygen sensors have a maximum storage life of 6 months in their shipping pots, in order to achieve customer usage life.

Action in the Event of Exposure

Should exposure to the sensor electrolyte occur (as a result of misuse, incorrect operation, manufacturing error, physical damage, etc.) 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. Contacted skin should be rinsed with water. Protective gloves should be worn to minimise any risk of electrolyte exposure. If connected to any electrical equipment, the sensor should be removed immediately.

Disposal

At the end of their working life, Alphasense oxygen electrochemical sensors must be disposed of in an environmentally safe manner, in compliance with relevant local waste disposal and environmental legislation. The sensors contain a toxic compound (lead) and 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. Alphasense offers a disposal service for used UK sensors available by prior arrangement only. Since these sensors are classified as special waste by European law, sensors may only be shipped to Alphasense via Waste Transfer Stations, in line with European Hazardous Waste Directive 91/689/EEC.