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How Can Employers Comply with DSEAR 2002?

Dangerous substances can be found in nearly all workplaces and include such things as solvents, paints, varnishes, flammable gases such as liquid petroleum gas (LPG), dusts from machining and sanding operations, dusts from foodstuffs, pressurised gases and substances which are corrosive to metal.

The Dangerous Substances and Explosive Atmospheres Regulations 2002 (DSEAR) require employers to control the risks to safety from fire, explosions and substances corrosive to metals. Dangerous substances are any substances used or present at work that could, if not properly controlled, cause harm to people as a result of a fire, an explosion or corrosion of metal.

In order to remain fully compliant with DSEAR, employers must:

- › Find out what dangerous substances are in their workplace and what the risks are
- › Put control measures in place to either remove those risks or, where this is not possible, control them
- › Put controls in place to reduce the effects of any incidents involving dangerous substances
- › Prepare plans and procedures to deal with accidents, incidents and emergencies involving dangerous substances
- › Make sure employees are properly informed about and trained to control or deal with the risks from dangerous substances
- › Identify and classify areas of the workplace where explosive atmospheres may occur and avoid ignition sources (from unprotected equipment, for example) in those areas.

Risk assessments

In order to comply with their employer's responsibilities, an employee must undertake a DSEAR risk assessment. This process seeks to achieve two main objectives:

1. To classify the hazardous area with respect to dangerous substances and explosive atmospheres
2. Determine ignition sources and personnel exposure.



Once the risk assessment has been developed, the employer must set out how they will eliminate or reduce the risk to their employee's safety from the presence of dangerous substances. This can be done by removing or controlling risks and by providing measures to limit or mitigate the consequences for people, should an incident occur.

If you wish to discuss how your organisation can remain compliant with DSEAR 2002, please contact SOCOTEC's Health & Safety consultancy team on 01327 811 166 or email H&S-enquiry@socotec.com.

Safety and control measures

Elimination or reduction of DSEAR risks can be achieved through the implementation of general safety measures such as:

- › Workplace design
- › Specific measures for processes which involve deliberate combustion
- › Safe systems of work, particularly for:
 - Control of cleaning operations involving dangerous substances
 - Control of hot work
 - High risk activities (Permits to Work).

Target areas for these measures are:

- › Workplace and work processes
- › How the work is organised.

Once the employer had identified the DSEAR risks associated with their workplace/activities and developed the risk control systems to eliminate or control these risks, they must protect the safety of employees by forward emergency planning. This requires them to have arrangements in place to deal with accidents, incidents and emergencies, including the evacuation, escape or rescue of people. These arrangements include first aid, safety drills and testing, information on hazards, warning and response systems and means of escape.