

CROWBERRY CONSULTING
Environment, Ethics and Corporate Responsibility Management

Dangerous Substances and Explosive Atmospheres Regulations FAQ's



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What Are The DSEAR Regulations?

DSEAR requires organisations to assess the potential risks of substances and put in place suitable mitigation and control measures. 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 or explosion or corrosion of metal. DSEAR puts the duties on employers and self-employed people to protect people, employees and visitors, from these risks in the workplace. The regulations contain two Directives, the Explosive Atmosphere Directive and the safety aspects of the Chemical Agents Directive (CAD).

When Does DSEAR Apply?

- When there is work being carried out by an employer (or self-employed person)
- A dangerous substance is present (or is liable to be present) at the workplace.
- The dangerous substance could be a risk to the safety of people as a result of fires, explosions or similar energetic events or through corrosion to metal.

Under the Management of Health and Safety at Work Regulations 1999, employers are already required to carry out a risk assessment but these regulations add an additional duty to reassess where dangerous substances are involved.

What Does DSEAR Require?

- Identify the dangerous substances in their work place and their potential risks and identify areas in the workplace where there are explosive atmospheres and avoid ignition sources.
- As stated above, the Regulations require the employer to carry out a suitable and sufficient assessment of the risks to his employees where a dangerous substance is or may be present at the workplace (regulation 5).
- “Risk” is defined as meaning “the likelihood of a person’s safety being affected by harmful physical effects being caused to him from fire, explosion or other similar events.
- Following this, they must put measures in place to remove these risks or, if unable to remove them, reduce them as is reasonably practicable to do so.
- Put controls in place to reduce the effects of an incident involving dangerous substances such as appropriately train employees who deal with these substances.
- Prepare procedures to deal with incidents and emergencies associated with dangerous substances.



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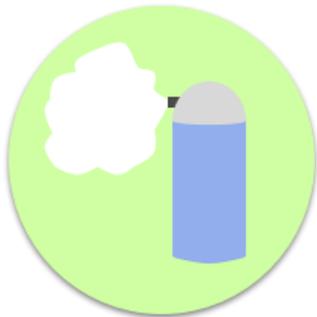
Examples of Substances That Come Under the DSEAR Regulations?

All of the below fall under DSEAR

- Storage of Petrol for fuel
- Use of flammable gases
- Handling and storage of flammable waste
- Work which could release flammable material naturally
- Use of flammable solvents in labs
- Storage and display of flammable goods in shops
- Filling, storing and handling aerosols with flammable propellants
- Transporting flammable substances
- Chemical manufacturing
- Petrochemical industry
- Handling of gases under pressure and handling of substances corrosive to metal.
- Deliveries from road tankers

Example - Dangerous and Explosive Substances: Ammonia.

- Ammonia is non-flammable but when mixed with air, it may explode.
- When heated, it emits poisonous fumes, requiring liquid tight protective clothing and breathing apparatus to be used when handling.
- It is extremely dangerous to human health, it will cause irritation to the eyes, the burning of the mouth, throat and stomach and exposure to the skin will cause severe burns.
- Ammonia is toxic and corrosive.



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EU Directives Transposed into DSEAR

The Explosive Atmosphere Directive

Explosive atmospheres can be caused by flammable gases, mists or vapours or combustible dusts which can form a combustible cloud. If there is enough of this substance mixed with the air, all that is then required is an ignition source. Many workplaces have explosive atmospheres or perform activities that generate explosive atmospheres. Employers must eliminate or reduce to a minimum the threat caused by these explosive atmospheres.

Under this Directive, employers must have areas of classified zones that are to be protected from sources of ignition. The classification given to a particular zone, and its size and location depends on the likelihood of an explosive atmosphere occurring. These zones can be classified using section 2 of the DSEAR Regulations.

Chemical Agents Directive (CAD)

This Directive lays down the minimum requirements for the protection of workers from risks to their safety and their health that arise from the effects of any chemical agents in the workplace or any work related activity involving chemical agents. It is down to the employer to determine any chemical agents the pose a threat to health and safety and assess the possible risk that they have. The employer must take relevant preventative measures to eliminate the risk or it is reduced to a minimum.

The employer must also have procedures established and in place which can be implemented in the event of an accident, incident or emergency occurring.

The employer must inform all workers about:

- Emergency arrangements.
- Results of the risk assessment.
- The hazardous chemical agents in the work place and have access to safety data sheets.
- By training on the appropriate precautions and the personal methods of protection.



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The 'B' Word

With the date of the UK Exit from the European Union drawing closer, it is important to note that the government are attempting to put in place provisions in order to protect the environmental legislation.

Even though these Directives are not direct UK Environmental Legislation, the release of these gases, substances and chemicals into the atmosphere can be detrimental to the Ozone and contribute to Climate Change and Global Warming.

Following the [EU Withdrawal Act 2018](#), there has been an emphasis on transposing as many EU Directives as possible to limit barriers to trade and keep harmony with the other EU Member States.

The DSEAR Regulations, as of the time of writing, have not been updated and it is unlikely they will be changed. The relevant EU legislations (*next slide*) have been implemented into these Regulations and so it is unlikely there is a need for changes to be made.

Image from [JCB Solicitors](#)



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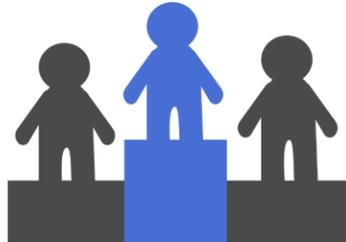
How Can Crowberry Consulting Help You?

- If you think that you have or use any products that would fall under the Dangerous Substances and Explosive Atmospheres Regulations, then Crowberry Consulting would be able to advise and outsource a DSEAR risk assessment for your business.
- Crowberry Consulting also provide help with updating a business' legal register and then provide an Internal Audits for your organisation to assess whether you are in compliance with all relevant legislation.
- Crowberry Consulting can also provide help with ISO 14001 internal audits.

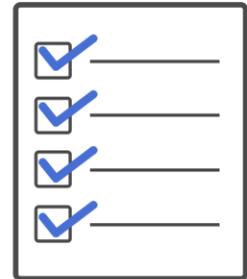
WE CAN HELP YOU IMPLEMENT ISO 14001 - ENVIRONMENTAL:



Clause 4 - Context of the organisation



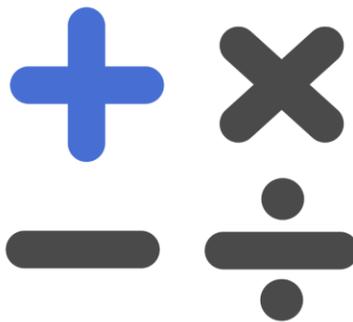
Clause 5 - Leadership



Clause 6 - Environmental Planning



Clause 7 - Support



Clause 8 - Operations for Environment



Clause 9 - Performance Evaluation



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