

Dangerous Substances and Explosive Atmospheres Regulations 2002 (DSEAR) Risk Assessment

Chemicals risk assessment - If the substance(s) that you are working with, handling or storing is flammable, extremely flammable, highly flammable, oxidising, explosive, or capable of producing an explosive atmosphere, this further section of the risk assessment process must be addressed.

If a proprietary product, does the hazard information contained within the Material Safety Data Sheet, or on the labelling on the product packaging denote that it is (tick box):

Explosive Oxidising Extremely flammable Highly flammable Flammable,

or, has a flash point lower than 32°C

or, that; release of vapour/gas may produce an explosive atmosphere

If a substance is produced as a result of an in-house process, or as a bi-product of such a process, is that substance (tick box):

Explosive Oxidising Extremely flammable Highly flammable Flammable

or, have a flash point lower than 32°C

or, could release of vapour/gas/dust produce an explosive atmosphere Yes No

If **No** has been answered to **all** of the above questions you may terminate the risk assessment at this point, otherwise continue:

Note here names of product, or substance being handled, stored, or produced:

Note here how a work system, or activity could fail and give rise to fire or explosion, also note any sources of ignition:

Control measures (circle answer as appropriate)

Process/activity

Where appropriate to the nature of the activity or operation:

Has the quantity of the dangerous substance held/used been reduced to a minimum?

Yes No

Have steps been taken to avoid, or minimise releases (intentional or unintentional)?

Yes No

Have steps been taken to control releases at source?

Yes No

Have steps been taken to prevent the formation of an explosive atmosphere?

Yes No N/A

Have steps been taken to collect, contain and remove any releases to a safe place (e.g. by ventilation)?

Yes No

Have steps been taken to avoid adverse conditions (e.g. Exceeding the limits of temperature or other control settings)?

Yes No N/A

Are incompatible substances kept apart in storage and, so far as is practicable, in use (e.g. oxidisers and combustibles)?

Yes No

Have the number of employees exposed to the dangerous substances or explosive atmosphere been reduced to the minimum?

Yes No

Has plant been supplied that is explosion resistant?

Yes No N/A

Is explosion suppression or relief provided on equipment?

Yes No N/A

Have adequate measures been taken to control or minimise the spread of fire, or explosion?

Yes No

Has suitable personal Protective Equipment (PPE) been provided, and have operatives been trained how to wear it correctly?

Yes No N/A

Workplace/process and management systems

Where appropriate to the nature of the activity or operation:

Is the workplace designed, constructed and maintained so as to provide adequate fire-resistance and/or explosion relief?

Yes No

Is any assembly, construction, installation, rig, plant, equipment, protection system, etc., designed in such a manner as to minimise risk of fire and/or explosion?

Yes No

Is any such assembly, construction, installation, rig, plant, equipment, protection systems, etc., used in such a manner as to minimise risk of fire and/or explosion?

Yes No

Have appropriate safe systems of work, or other required procedural systems of organising work, been developed and communicated to the workforce, either by way of this form or another document?

Yes No

Is a permit to work scheme required for working with the substance(s), or in the work area, and are these strictly enforced?

Yes No

In the case of explosive atmospheres; *(if not applicable tick here and proceed to storage)*

Have all such areas been classified in to zones in accordance with Schedule 2 to the Regulations?

Yes No

Where necessary have such classified zones been marked at their entry points with the specified 'EX' hazard warning sign?

Yes No N/A

Are all areas classified into such zones appropriately protected from sources of ignition, through the selection of equipment and protective systems compliant with the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 1996?

Yes No

Are employees working in zoned areas provided with clothing that does not create a risk of electrostatic discharge?

Yes No

Have areas where explosive atmospheres may be present, before their first operation, been verified as being safe by a person, or organisation competent in the field of explosion protection?

Yes No

Storage

Are all flammable substances kept in suitable fire resistant storage and are all quantities in excess of 50ltrs kept in dedicated and appropriately protected flammable stores?

Yes No

Are all petroleum spirits, or derivatives thereof, in excess of 50ltrs kept in dedicated and appropriately protected petroleum spirit stores?

Yes No

Are incompatible substances stored apart (e.g. flammables, oxidisers, combustibles, flammable gases, LPG)?

Yes No

Where appropriate have storage areas been designed to provide explosion relief/resistance?

Yes No N/A

Emergency procedures

Have suitable emergency procedures been developed and communicated to the workforce to deal with adverse process conditions (e.g. exceeding limits of temperature, or other control settings)?

Yes No N/A

Have suitable emergency procedures been developed and communicated to the workforce to deal with fire and evacuation?

Yes No

Have suitable emergency procedures been developed and communicated to the workforce to deal with the spillage of dangerous substances?

Yes No

Waste disposal

Have suitable procedures been developed, communicated to the workforce and implemented to deal with the safe transport and disposal of dangerous substances?

Yes No

Information, Instruction and Training

Has appropriate information, instruction and training, commensurate with the hazard potential of the dangerous substances, or process, been provided to the workforce as regards; product detail, hazard, risk reduction methods to be employed, management systems to be followed, emergency systems, etc.?

Yes No

Are only trained and competent persons involved in work with dangerous substances?

Yes No

Where any question relevant to a dangerous substance being used, produced, handled or stored has returned a No response, the subject area should be revisited to ensure that all required and reasonably practicable risk reducing measures have been implemented.

Conclusion

The risk(s) from the hazard potential of the dangerous substances and/or explosive atmospheres identified in this risk assessment must be reduced to the lowest level reasonably practicable, are you satisfied that this is the case?

Yes No

Name of assessor _____ Signature _____

Date assessment undertaken _____ Date review required _____

Safe System of Work (to be communicated to the relevant workforce)

As a result of risk assessment of the work process involving the following dangerous substance(s)

this including their handling, storage and ability, in the form that they present in the work situation, to result in an explosive atmosphere, the following safe system of work (rules of work) must be observed and adhered to at all times.

(Continue on another sheet if required)

In the event of an emergency situation actions laid out in the safe system of work that are designed to minimise damage to equipment or property should only be undertaken if this does not put yourself or others at significant risk, personal safety and that of others must take priority.

I have read and understood the above safe system of work.

Signature	Date