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.

Dangerous Substances and Explosive Atmospheres Regulations 2002

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 ____________________

N.B There is a following page
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.

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