

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

Date	Review Date	Version
12.06.18	June 2023	V3

**Purpose**

This risk assessment must be completed where dangerous substances and chemicals are being used within the Trust.

**Who should read this document?**

- Senior clinicians, senior managers, heads of department/services, ward/line managers;
- Fire Wardens.

**Key messages**

It is the senior/line manager's responsibility to ensure that a DSEAR risk review is carried out where dangerous substances and chemicals are being used.

**Accountabilities**

<b>Production</b>	Fire Safety Advisor
<b>Review</b>	Fire Safety Manager
<b>Ratification</b>	Director Responsible (Fire Safety)
<b>Dissemination</b>	Trust wide
<b>Compliance</b>	Regulatory Reform (Fire Safety) Order 2005 and HTM 05, Dangerous Substances and Explosive Atmospheres Regulations 2002

**Links to other policies and procedures**

This policy links to the Trust's Fire Safety and Arson Prevention Policy

**Version History**

<b>V1</b>	27.02.13	Dave Presswell (Fire Safety Advisor)
<b>V2</b>	07.05.13	Final version checks
<b>V3</b>	12.06.18	Dale Mills 5 yearly review (Fire Safety Manager)

*PHNT is committed to creating a fully inclusive and accessible service.*

*Making equality and diversity an integral part of the business will enable us to enhance the services we deliver and better meet the needs of patients and staff.*

*We will treat people with dignity and respect, actively promote equality and diversity, and eliminate all forms of discrimination regardless of (but not limited to) age, disability, gender reassignment, race, religion or belief, sex, sexual orientation, marriage/civil partnership and pregnancy/ maternity.*

**An electronic version of this document is available on the Trust Documents.**

**Larger text, Braille and Audio versions can be made available upon request**

***Standard Operating Procedures are designed to promote consistency in delivery, to the required quality standards, across the Trust. They should be regarded as a key element of the training provision for staff to help them to deliver their roles and responsibilities.***

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# Standard Operating Procedure (SOP) – DSEAR (Dangerous Substances and Explosive Atmosphere Regulations 2002 Risk Assessment

## 1 Purpose and Scope

A DSEAR check sheet must be completed by a competent person where dangerous substances and chemicals are being used. Any identified dangerous substances being handling and/or stored that are flammable, extremely flammable, highly flammable, oxidising, explosive, or capable of producing an explosive atmosphere, should be subject to a thorough risk assessment to eliminate, reduce, substitute, and/or control the hazard.

## 2 Procedure to Follow

Please complete the check list in **Part 1** of Appendix 1. **Part 2** only needs completing where a YES answer is given in **Part 1**. Please note there are a number of sections in Part 2 which all need completing.

Further advice is available from the Trust Fire Advisor: ext. 31299.

Please keep the completed form as a record.

## 3 Document Ratification Process

The design and process of review and revision of this procedural document will comply with “The Development and Management of Trust Wide Documents”.

The review period for this document is set as default of 5 years from the date it was last ratified, or earlier if developments within or external to the Trust indicate the need for a significant revision to the procedures described.

This document will be approved by the Health and Safety Committee and ratified by the Director Responsible for Fire Safety (Director of Planning and Site Services).

Non-significant amendments to this document may be made, under delegated authority from the Director Responsible for Fire Safety or by the nominated author. These must be ratified by the Director Responsible for Fire Safety and should be reported, retrospectively, to the Health and Safety Committee.

Significant reviews and revisions to this document will include a consultation with named groups, or grades across the Trust. For non-significant amendments, informal consultation will be restricted to named groups, or grades who are directly affected by the proposed changes

### Dissemination and Implementation

Following approval and ratification, this procedural document will be published in the Trust’s formal documents library and all staff will be notified through the Trust’s normal notification process, currently the ‘Vital Signs’ electronic newsletter.

Document control arrangements will be in accordance with The Development and Management of Trust Wide Documents.

The document author(s) will be responsible for agreeing the training requirements associated with the

newly ratified document with the Fire Safety Manager and for working with the Trust's training function, if required, to arrange for the required training to be delivered.

## **4 | Monitoring and Assurance**

An electronic copy of the completed DSEAR Risk Assessment must be sent to Trust Fire Safety Advisor/Coordinator.

Where only Part 1 applies and the finding does not require further action, Part 1 only should be completed and retained for record purposes and an electronic copy sent to Trust Fire Safety Advisor/Coordinator.

**Part 1**

Does the hazard information contained within the Material Safety Data Sheet or that on the labelling of the product packaging denote that it is any of the following (tick box):

Explosive  Oxidising  Extremely flammable  Highly flammable  Flammable

or, a flash point lower than 32 °C      YES       NO

or, substance could release of vapour/gas may produce an explosive atmosphere?      YES       NO

If a substance is produced as a result of an internal (Trust) process, or as a bi-product of such a process, will that substance/process provide any of the following hazards (tick box):

Explosive  Oxidising  Extremely flammable  Highly flammable  Flammable

or, has a flash point lower than 32 °C      YES       NO

or, could release of vapour/gas/dust produce an explosive atmosphere?      YES       NO

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

**Part 2** ( to be completed where yes answers are given in Part 1)

**Identified substances**

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:

Ignition sources noted

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System or activity

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## Control measures

### Appropriate to the nature of the process and/or activity:

- Has elimination or replacement (with a safer substance) of that used and stored been considered? YES  NO
- Has the quantity of the dangerous substance used/stored 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 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. use of fume cupboards, extraction/ ventilation systems etc)? YES  NO
- Have steps been taken to avoid adverse conditions (e.g. exceeding limits of temperature or other process control measures)? YES  NO  N/A
- As far as is reasonably practicable, are incompatible substances stored apart or separately, (e.g. oxidisers and combustibles)? YES  NO
- Have the number of employees exposed to the dangerous substances or explosive atmosphere been reduced to a minimum? YES  NO
- Has plant and equipment been supplied that is intrinsically safe and/or 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 in its correct use? YES  NO  N/A

## Workplace process and management systems

### 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 the 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 (Approved Codes of Practice - ACOP's) for hazardous work processes, been developed and communicated to appropriate staff, either by the use of this form or another written 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 and audited? YES  NO
- In regard to explosive atmospheres; (*if not applicable proceed to storage section*) YES  NO  N/A
- Have all such areas been classified in to zones in accordance with Schedule 2 to the Regulations?
- 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 heat/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 cupboards, 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 appropriate staff in order to deal with adverse process conditions such as exceeding limits of temperature, or other required control measures? YES  NO  N/A

Have suitable emergency procedures been developed and communicated to appropriate staff to deal with fire and evacuation? YES  NO

Have suitable emergency procedures been developed and communicated appropriate staff to deal with a spillage/release 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 and potential risk of the dangerous substances, or process, been provided to appropriate staff with regards to product detail, hazard, risk reduction methods to be employed, management systems to be followed, and emergency systems, etc.? YES  NO

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

Are you satisfied that the risk(s) from the dangerous substances and/or explosive atmospheres identified within this risk assessment have been reduced to the lowest level reasonably practicable? YES  NO

Name of assessor

Signature (printed copies)

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 processes, handling and storage of the following dangerous substance(s), including their ability, in the form that they present in the work situation, could result in an explosive atmosphere.


**The following safe system of work (rules of work) must be observed and adhered to at all times.**

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*(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.

## Workforce confirmation record

I have read and understood the above safe system of work. (relevant workforce signatures)

Name	Signature	Date