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# DANGEROUS SUBSTANCES & EXPLOSIVE ATMOSPHERES

# ASSESSMENT FORM S30

Before completing this form, please read the University’s [Local Rule on Dangerous Substances & Explosive Atmospheres Regulations 2002 (DSEAR](http://www.strath.ac.uk/media/ps/safetyservices/campusonly/localrules/2012.04.16_-_DSEAR.pdf)) and [DSEAR Local Rule Amendment June 2017.](https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.strath.ac.uk%2Fmedia%2Fps%2Fsafetyservices%2Fcampusonly%2Flocalrules%2FAmendment_to_DSEAR_Regulations_June_2017.docx&wdOrigin=BROWSELINK)

**Prior to the commencement of any work involving dangerous substances,** a suitable and sufficient assessment of any potential risks must be made and effective measures taken to control those risks. This will complement any other risk assessments which have been done for the general risks surrounding these work activities, using the eRisk System ([Link](https://safetysystems.strath.ac.uk/login.php?p_w=%2Fra.php%3F)) and the eCoSHH system ([Link](https://www.coshh.strath.ac.uk/)).

Individuals working under this DSEAR assessment have a legal responsibility to ensure they are aware of the hazards associated with their work activities and that they follow the risk control measures stipulated to safeguard the health and safety of themselves and others.

**SECTION 1**

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| **1.1 OPERATION / ACTIVITY** *Complete the relevant details of the activity being assessed.* | | | | |
| **Title:** |  | | | |
| **Location(s) of work** | |  | **Assessment Ref. No.** |  |
| **Brief description:** | | | | |

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| * 1. **PERSON RESPONSIBLE FOR THIS WORK** | | | |
| **Name:** |  | **Position:** |  |
| **Department:** |  | **Signature:** |  |

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| **1.3 PERSON CONDUCTING THIS ASSESSMENT** | | | | |
| **Name:** |  | | **Position:** |  |
| **Date risk assessment undertaken:** | |  | **Signature:** |  |

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| * 1. **ASSESSMENT REVIEW HISTORY**   *This assessment should be reviewed immediately if there is any reason to suppose that the original assessment is no longer valid. Otherwise, the assessment should be reviewed annually. The responsible person must ensure that this risk assessment remains valid during use.* | | | | | |
| **REVIEW HISTORY** | |  | | | |
|  | **Review 1** | | **Review 2** | **Review 3** | **Review 4** |
| **Due date** |  | |  |  |  |
| **Date conducted** |  | |  |  |  |
| **Conducted by** |  | |  |  |  |

**A SIGNED COPY OF THIS ASSESSMENT MUST BE RETAINED BY THE DEPARTMENT**

**SECTION 2**

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| **2.1: SUMMARY CLASSIFICATION OF DANGEROUS SUBSTANCES** | | | | | |
| **2.1.1. If the substance is a proprietary product, does the Safety Data Sheet or labelling on the product packaging indicate that it is (tick all boxes that apply):-** | | | | | |
| FlammableFlammable Gas | FlammableFlammable Solid | Flammable**\***Flammable Liquid Cat 1  Cat 2  Cat 3 | OxidisingOxidising | CorrosiveExplosive | |
| Compressed gasGas under pressure | | CorrosiveCorrosive – if it is a substance that can corrode metals which could cause structural damage reducing integrity of structures if not suitably contained | | |  |
| **If the substance is produced as the result of an in house process, or as a bi-product of such a process, is the substance (tick all boxes that apply):-** | | | | | |
| FlammableFlammable Gas | FlammableFlammable Solid | Flammable**\***Flammable Liquid Cat 1  Cat 2  Cat 3 | OxidisingOxidising | CorrosiveExplosive | |
| Compressed gasGas under pressure | | CorrosiveCorrosive – if it is a substance that can corrode metals which could cause structural damage reducing integrity of structures if not suitably contained | | |  |
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| **2.1.2 Could the nature of the process itself lead to the creation of an explosive atmosphere or energetic event?: Yes**  **No** | | | | | |

**If you have not ticked any of the above boxes, or ‘No’ to question 2.1.2, the DSEAR assessment need go no further. The work does not involve any dangerous substances or lead to creation of a potentially explosive atmosphere. It might be useful however, to record the result on the general risk assessment form and attach this page. Otherwise continue using the eRisk System (**[**Link**](https://safetysystems.strath.ac.uk/login.php?p_w=%2Fra.php%3F)**) and the eCoSHH system (**[**Link**](https://www.coshh.strath.ac.uk/)**).**

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| **\***Flammable Liquid Catergories:   * Category 1: flashpoint <23 °C and initial boiling point ≤35 °C; |
| * Category 2: flashpoint <23 °C and initial boiling point >35 °C; |
| * Category 3 flammable liquids (under CLP) flashpoint ≥23 °C and ≤60 °C; and combustible liquids with a flashpoint above 60°C. |
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| **2.2: HAZARDS**  *List the details of the dangerous substances used. Name of the substance; quantity used in the process; form of substance in use (e.g. gas, liquid, powder, dust etc.). The nature of the hazard should state whether the substance is flammable, highly flammable, extremely flammable, explosive, oxidising, corrosive or gas under pressure. Conditions of use under which an explosive atmosphere or energetic event could be created e.g. substance dries out, mixed with incompatible substances, leakage of gas cylinder, breakage of a bottle etc.* | | | | |
| **Dangerous**  **Substance** | **Quantity** | **Form of Substance** | **Nature of Hazard** | **Conditions of Use** |
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| **2.3: COMMENT ON THE HAZARDS ASSOCIATED WITH THE DANGEROUS SUBSTANCES**  *Note here how the system of work or activity could fail and/or give rise to fire or explosion. Also note any sources of ignition. Expand and provide more detail on the Conditions of Use in 2.2 and explain where a risk may be created e.g. when scaling up; use of different types of heat source; varying quantities of other substances used; creation of an unknown substance.* |
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| **SECTION 3: RISK CONTROL MEASURES**  *Risk control measures are put in place either to prevent an explosive atmosphere from forming or an energetic event from being created, and/or to mitigate the result. Using the aide memoire attached, detail the risk control measures in place or to be implemented, through the SSW.* |
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| **SECTION 4.0: DECLARATION** | | |
| The dangerous substances involved in this work activity have been assessed and the risks of explosive atmospheres and/or energetic events have been identified. The risk control measures identified and implemented as a result of this assessment will reduce the risk to the lowest level reasonably practicable. Is this the case?  **If No, the assessment must be reviewed and further risk control measures implemented.** | **Yes** | **No** |

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| **SECTION 5.0: SAFE SYSTEM OF WORK (SSW)** *Specify if a SSW is required for the work activity and if so complete or attach the details of this.* | | |
| As a result of the assessment under DSEAR is a safe system of work deemed necessary for this work involving dangerous substances? This includes handling, storage and ability in the work place/environment to result in an explosive atmosphere.  In the event of an emergency, actions laid out in the SSW that are designed to minimise damage to equipment or property should be undertaken only if it is safe to do so and only if this does not put yourself or others at risk. | Yes | No |
| THE SSW should incorporate the information gathered in section 2.3 and the risk control measures identified in Section 3.  ***The following safe system of work must be observed and adhered to at all times:*** | | |

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| **SECTION 6.0: RECEIPT AND AGREEMENT OF ASSESSMENT** (**Reference No.**      )  *All individuals who are working to this DSEAR assessment must sign and date to acknowledge that they have read and are aware of the potential to create an explosive atmosphere or energetic event and the risk control measures taken to prevent and mitigate. If this assessment is modified in any way, all current signatories must sign again to show they are aware of the modifications made.* | | | |  |
|  | **Version 1** |  | **Version 2** | **Version 3** |
| **NAME** | **SIGNATURE** | **DATE** | **Initials/Date** | **Initials/Date** |
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| **Details of Changes Specify:** | **Sign/Dated**  **Assessor** | **Signed/Dated**  **Supervisor/PI** | **Date of Revision** | **Next review date** |
| Version 2 - Changes |  |  |  |  |
| Version 3 - Changes |  |  |  |  |