

## Appendix 4. DSEAR Risk Assessment form

### DSEAR Risk Assessment

A DSEAR risk assessment is required for work with dangerous substances, which could cause fire or explosion including source materials, products, known intermediates and by-products. **This form will be completed, approved and signed by the person responsible for the work.**

**Note:** The risks from the dangerous substance and explosive atmospheres identified in this risk assessment must be reduced to the lowest level reasonably practicable.

This assessment will only be used for simple low risk tasks e.g. for quantities below 50 litres of materials. If you are unsure, please contact your local SHE Group

#### Part 1 - Information

Ref:	Title:
Assessment Date:	Rm/Building/STFC Site:
Main Assessor name and position:	Department:
Assessment team involved:	
Activity/ Task being assessed (this must be filled in with as much information as possible). <b>DO NOT LEAVE BLANK.</b>	

#### Part 2 – List of Hazards

Compressed gas description	Hazard Phrases (SDS)	Precautionary Phrases (SDS)	Flammable (Y/N)	Highly Flammable (Y/N)	Extremely Flammable (Y/N)	Oxidisers	Explosive	Lower Explosive Limit %	Upper Explosive Limit %	Flash Point °C	Auto-ignition Temp °C	Boiling or melting point °C	Vapour Density (Air = 1)

Liquids Description	Hazard Phrases (SDS)	Precautionary Phrases (SDS)	Flammable (Y/N)	Highly Flammable (Y/N)	Extremely Flammable (Y/N)	Oxidisers	Explosive	Lower Explosive Limit %	Upper Explosive Limit %	Flash Point °C	Auto-ignition Temp °C	Boiling or melting point °C	Specific Gravity


Other Chemicals of note in the area.	Hazard and Precautionary Phrases (SDS)	Pyrophoric Chemicals	Flammable (Y/N)	Highly Flammable (Y/N)	Extremely Flammable (Y/N)	Oxidisers	Explosive	Lower Explosive Limit %	Upper Explosive Limit %	Flash Point °C	Auto-Ignition Temp °C	Boiling or melting point °C	Specific Gravity

<b>Frequency of use of substances</b>
Indicate if Daily, Weekly, Monthly, Other?
<u>Additional Comments</u>

**Part 3 – Potential Ignition Sources**

Type	Applicable (Y/N)	Item (please list)	Control Measure
<b>Heat Energy</b>			
Choose an item.			
Choose an item.			
Choose an item.			
Choose an item.			
Choose an item.			
Other (please list)			
<b>Electrical Energy</b>			
Choose an item.			
Choose an item.			
Choose an item.			
Choose an item.			
Choose an item.			
Other (please list)			
<b>Mechanical Energy</b>			
Choose an item.			

Choose an item.			
Choose an item.			
Other (please list)			

**Part 4 – Workplace**

Workplace or management systems appropriate to nature of activity or task	Please indicate		
	Yes	No	N/A
Is the workplace designed, constructed and maintained so as to provide adequate fire-resistance and or explosion relief			
When was the last Fire Risk Assessment carried out on the Workplace?			
Is there is adequate fire detection in the area?			
Are there any gas alarm systems in the area?			
Is any assembly, construction, installation, rig, plant, equipment, protection system designed in such a way as to minimise risk of fire and/or explosion			
Is any assembly, construction, installation, rig, plant, equipment, protection system used in such a way as to minimise risk of fire and/or explosion			
Have appropriate safe systems of work, or other required procedural systems or organising work, been developed and communicated to all other person who might need to know?			
Is a permit to work scheme required for working with substances in the work area and is this strictly enforced?			

**Part 5 Monitoring**

Use the space below to detail what monitoring, type and safe systems are in place

**Part 6 - Identification of Risk and Controls**

Step 1 Hazard Description	Step 2 Affected persons	How might they be harmed	Step 3 Existing controls/defences (Pick control from drop down or add in)	Expand on control measure (do not leave blank)	Initial risk? (See risk assessment matrix below)			Further control measures (if required)	Step 4 Who will take these actions forward and completed by when?		
					H Harm	L Likelihood	R Risk		Action by whom	When	Completed
	<i>E.g., Contractors, visitors, students, security guards, cleaners, etc. present in the area.</i>	<i>They are likely to be un-trained and may not appreciate the full range of hazards present.</i>	Choose an item.								
			Choose an item.								
			Choose an item.								
			Choose an item.								
			Choose an item.								
			Choose an item.								
			Choose an item.								

			Choose an item.								
			Choose an item.								
			Choose an item.								
			Choose an item.								

**Part 7 – Distribution List**

Distribution List	Signature	Date
Has the assessment been entered into the Evotix Assure system under the DSEAR tab? YES/NO      Evotix Assure (list above as well) ref no:		
<p>Step 5 Review Date:</p> <ul style="list-style-type: none"> <li>- Review your assessment to make sure you are always improving the identification of hazards and control measures</li> <li>- If there is a significant change in your workplace, remember to check your risk assessment and where necessary amend it</li> <li>- Review your assessment after any incident and amend as appropriate</li> </ul>		

**What is the level of risk?** For each hazard, choose the 'Harm' and 'Likelihood'. Choose 'the most likely reasonably foreseeable injury' and **not** just the worst-case outcome. For example, it is very unlikely that someone would be killed from falling from a footstool, the most common injury is likely to be a minor injury which may or may not require attention from a First-Aider.

E.g. if Harm was 'Moderate' and Likelihood 'Unlikely' the Risk would be 'Medium'

		If control measures are not adhered to potential harm is likely to be:				
<b>HARM</b>	<b>Major</b>	Fatality	High	High	V High	V High
	<b>High</b>	Fatality or life changing injuries or serious health effects	Med	Med	High	V High
	<b>Moderate</b>	Time off work, e.g. broken bones, stress or musculoskeletal injury	Low	Med	Med	Med
	<b>Slight</b>	Minor injury which may or may not require First-aid treatment	Low	Low	Low	Low
			<b>Very Unlikely</b>	<b>Unlikely</b>	<b>Likely</b>	<b>Very Likely</b>
			Conceivable but difficult to realise. Would require a combination of several failures	Can be envisaged but is unlikely. Never previously happened in STFC	Can be anticipated to happen. Has previously been known to happen in STFC	Can be anticipated to happen. Has previously been known to happen on site
			<b>LIKELIHOOD</b>			

Low Risk	No additional controls are necessary unless they can be implemented at very low cost (in terms of time, money and effort) or there is a mandatory requirement within legislation. Actions to further reduce these risks can be assigned low priority.
Medium Risk	Consideration should be given as to whether the risks can be lowered, where applicable, to a low risk level, but the costs of additional risk reduction measures should be take into account. The risk reduction measures should be implemented within a defined time period.
High Risk	The controls put in place are critical and it is imperative that they are monitored by a line manager (or equivalent) on a regular basis to ensure they are in place. Risk reduction measures should be contemplated as per the hierarchy and favor engineering controls over administrative controls and PPE. Additional controls may require extra resources and these would be justifiable.
Very High Risk	Additional control measures <b>must</b> be implemented to reduce the risk, regardless of cost, or a decision taken to terminate the activity until the risk level can be reduced.