

## COSHH Risk Assessment – Polyester Resin Crystic 2.446 PA

<b>Wind Farm Owner</b>	Scottish Power	<b>Wind Farm Name</b>	Green Knowes
<b>Technical Director</b>	Joe McDonald	<b>Operations Director</b>	Chris Gillies
<b>Next Revision Date</b>	15/02/2027	<b>Document No:</b>	BR-RA-COSHH-002- Polyester Resin Crystic 2.446 PA_V3.0



# COSHH RISK ASSESSMENT POLYESTER RESIN CRYSTIC 2.446 PA



### Integrated Management System Statement

This risk assessment forms part of the Bladestar Renewables Integrated Management System and shall be read in conjunction with the relevant Method Statement, Rescue Procedures and Client Approved Written Procedures.

Hazards have been identified and risk controls selected in accordance with the hierarchy of control principles, ensuring risks are reducing so far as is reasonably practicable (ALARP).

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<b>RISK MATRIX</b>		SEVERITY				
		1 Insignificant	2 Minor First Aid/Injury	3 Significant	4 Major injury/Long term health hazard	5 Death
LIKLIHOOD	5 Very likely	5	10	15	20	25
	4 Likely	4	8	12	16	20
	3 Probable	3	6	9	12	15
	2 Possible	2	4	6	8	10
	1 Unlikely	1	2	3	4	5

Acceptable risk 1-2 (Low)	Acceptable – task may proceed
Reduced risk 3-9 (Medium)	Tolerable and may proceed but may require supervision or active monitoring
Unacceptable risk 10-25 (High)	TASK MUST NOT PROCEED – Revise risk assessment and introduce further control measures to reduce risk

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Job Steps		Hazards & Effects		Control Initial Risk			Measures	Residual Risk		
Hazard Type	Hazard Effect	Groups Affected	Likelihood	Severity	Risk Rating	Existing and recommended measures to reduce the likelihood of severity or both.	Likelihood	Severity	Risk Rating	
Flammable Liquid/ Vapour	Death/Serious Injury/Irritation	Site Operatives	2	5	10	<ul style="list-style-type: none"> <li>• Appropriate firefighting equipment available that has been regularly maintained.</li> <li>• Keep away from sources of ignition.</li> <li>• Suitable storage provided.</li> <li>• Do not use a solid water stream as it may scatter and spread fire.</li> <li>• No Smoking.</li> <li>• Full face masks to be worn with A2P3 Filters.</li> <li>• Anti-static coveralls to be worn.</li> <li>• Mechanical ventilation if not in a well-ventilated area.</li> <li>• Exposure duration shall be minimised to reduce the likelihood of prolonged inhalation of styrene vapours.</li> </ul>	1	5	5	
Skin/Eye Irritation	Serious Injury/ Irritant	Site Operatives	2	4	8	<ul style="list-style-type: none"> <li>• Casualties treated by first aider until emergency help arrives.</li> <li>• Employees have been trained in how to use the chemicals and the safe system of work.</li> <li>• PE provided and used.</li> <li>• Remove contaminated clothing and wash skin thoroughly with water. If irritation persists, get medical advice.</li> <li>• Spillages cleaned up immediately.</li> <li>• Repeated skin contact may lead to sensitisation and allergic skin reactions.</li> </ul>	1	4	4	
Respiratory Irritant	Serious Injury/ Irritation	Site Operatives	3	5	15	<ul style="list-style-type: none"> <li>• Employees/Subcontractors have been trained in how to use the chemicals and the safe system of work</li> <li>• Natural ventilation provided (External Works)</li> <li>• PPE to be used at all times</li> <li>• Use outdoors where possible.</li> <li>• Wear mask at all times to prevent irritation when working with uncured styrene.</li> <li>• Do not breath the vapour.</li> <li>• Mechanical ventilation to be used if not in a well-ventilated area. (Internal Works)</li> <li>• Exposure duration and frequency shall be minimised to ensure airborne concentrations remain below UK Workplace Exposure Limits (EH40/2005), particularly for styrene.</li> </ul>	1	5	5	

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Job Steps	Hazards & Effects	Control Initial Risk	Measures	Residual Risk
Hazard Type	Hazard Effect	Groups Affected	Existing and recommended measures to reduce the likelihood of severity or both.	Likelihood Severity Risk Rating
Irritation of the eyes	Serious Injury/Irritation	Site Operatives	<ul style="list-style-type: none"> <li>COSHH Assessments have been communicated to all relevant employees/subcontractors</li> <li>First aid – appropriate first aid kit available (Service Vehicle, Wind Turbine Base, Substations)</li> <li>PPE provided and used</li> <li>Wear eye/face mask protection if there is a risk of splashing.</li> <li>Eye wash kit must be immediately available. (Service Vehicle)</li> <li>Care shall be taken to avoid repeated exposure, as cumulative irritation may occur with frequent handling of uncured resin.</li> </ul>	1 4 4
Dangerous to pregnant women/ unborn child	Serious Injury/Irritation	Site Operatives	<ul style="list-style-type: none"> <li>PPE provided shall be used at all times.</li> <li>Exposure shall be avoided during pregnancy. Alternative duties must be provided where reasonably practical.</li> </ul>	1 1 5

### Routes of exposure

#### Contact with eyes

Substance makes contact with users eyes.

#### Inhalation

Once inhaled, chemicals are either exhaled or deposited in the respiratory tract.

#### Skin Puncture

Substances may enter the body if the skin is penetrated or punctured by contaminated objects.

#### Ingestion

Chemicals that inadvertently get into the mouth and are swallowed.

#### Skin Absorption

Skin (dermal) contact can cause effects that are relatively innocuous such as redness or mild dermatitis; more severe effects include destruction of the skin tissue or other debilitating conditions. Repeated inhalation or dermal exposure may result in cumulative health effects; therefore, all control measures must be consistently applied.

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Further controls – Fire and First Aid	
<p><b>Emergency eye wash</b> Eye wash stations are available in service vehicle.</p> <p><b>First aid</b> Adequate first aid facilities are available.</p> <p><b>Provide fresh air</b> Substances should be used in an open and well ventilated area where possible.</p>	<p><b>Firefighting equipment</b> Suitable firefighting equipment available in service vehicle and turbine.</p> <p><b>No naked flames</b> Substances not used/stored near naked flames or points of ignition.</p> <p><b>Wash with soap and water</b> Wash contacted area with soap and water.</p>

Further controls – Storage, disposal and spillage	
<p><b>Changing Facilities</b> Suitable facilities areas for changing of clothes.</p> <p><b>Correct Storage Facilities</b> Controlled storage in place for use with designated substances/medication.</p> <p><b>Hygiene Procedure Observed</b> All users are instructed on and acknowledge a formal hygiene procedure.</p> <p><b>No Smoking</b> Smoking/Vaping is not allowed within the vicinity of the substance.</p> <p><b>Spillages Cleared up Immediately</b> Suitable provisions in place to clear away spills quickly and safely.</p> <p><b>Store Away From Heat</b> Substances not used/stored near naked flames or points of ignition/high temperature.</p> <p><b>Warning Signs Displayed</b> Relevant signs highlighting potential hazards are clearly displayed in appropriate areas.</p>	<p><b>Containers Suitably Labelled</b> All containers are suitably labelled to disclose relevant safety advice.</p> <p><b>Do not empty into drains</b> Substance should not be emptied/diluted in to drains/water source.</p> <p><b>Keep away from ignition sources</b> Substances not used/stored near naked flames or points of ignition.</p> <p><b>Prevent Spillages</b> Measures implemented to control spill potential.</p> <p><b>Storage for work clothes and PPE</b> Adequate storage provided for all work clothing and provided personal protective equipment.</p> <p><b>Use spill response kit</b> Spill Response Kit provided and checked/maintained regularly.</p>

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### Mandatory PPE required

#### Protective Clothing Must Be Worn

Any personal protective equipment provided must be worn as per associated risk assessment.

- Anti static coveralls conforming to EN 1149.5:2008
- Cat 3 disposable suit conforming to EN ISO 13982-1:2004/A1:2010, EN 13034:2005+A1:2009, EN 1073.2:2002, EN 14126:2003, EN 1149.5:2008

#### RPE Fit Testing

All operatives utilising respiratory protective equipment must have completed face-fit testing unless wearing full face battery powered respirator with A2 + P3 filters. A2 filters only required when working in areas that are not well ventilated.

#### Wear Goggles

Any protective eye equipment provided must be worn as per associated risk assessment.

- Safety goggles conforming to EN 166 3.4B

#### Protective Gloves Must be Worn

Any protective hand wear provided must be worn as per associated risk assessment.

- Cat 3 Nitrile disposable gloves conforming to EN ISO 374-1:2016 Type B, EN ISO 374-5:2016

#### Use Respiratory Protective Equipment RPE

Any respiratory protective equipment provided must be worn as per associated risk assessment.

- Battery powered respirator conforming to EN 166 1 FT B, EN 12941 TH3
- A2 filters conforming to EN 14387:2004+A1:2008 A1
- P3 filters conforming to EN 143:2000+A1:2006 P3 R
- Where ventilation alone cannot reliably maintain exposure below Workplace Exposure Limits, respiratory protective equipment shall be worn at all times when working with uncured resin.

**This COSHH Assessment has been developed with reference to the manufacturer's Safety Data Sheet for Crystic 2.446PA (issue 05/01/2023) and relects the identified Health, Safety and Environmental hazards. [BR-MSDS-002- Polyester Resin Crystic 2.446PA.pdf](#)**

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**Risk Assessment Sign Off**

<b>Name</b>	<b>Position</b>	<b>Company</b>	<b>Date</b>	<b>Signature</b>

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