Succinct summary of representative risk management measures (RMMs) and operational conditions (OCs)

Legal name of applicant(s):	*Rolls-Royce plc*
Submitted by:	*Rolls-Royce plc*
Substance:	*Bis (2-ethylhexyl) phthalate (DEHP)* *EC: 204-211-0 CAS: 117-81-7*
Use title:	*The processing of a stop-off formulation containing DEHP during the diffusion bonding and manufacture of aero engine fan blades.*
Use number:	*1*

The processing of a stop-off formulation containing DEHP during the diffusion bonding and manufacture of aero engine fan blades

ECS and WCS	Task (ERC/spERC or PROC)	Annual amount per site (tonnes /year)	Technical RMMs, including: *Containment, *Ventilation (general, LEV…) *customized technical installation, etc	Organisational RMMs, including: *Duration and Frequency of exposure *OSH management system *Supervision *Monitoring arrangements *Training, etc	PPE (characteristics)	Other conditions	Effectiveness of waste water and waste air treatment (for ERC)	Release factors: water, air and soil (for ERC)	Detailed info. in CSR (section)
ECS 1	ERC 5: Industrial use resulting in inclusion into or onto a matrix	<1	Handle substance within a closed system. Sample via a closed loop or other system to avoid exposure. Air emissions: Incinerate, absorb or adsorb vapours stripped from process whenever necessary. Dispose of waste cans and containers according to local regulations.	Less than 5L of formulation per shift; equivalent to less than 0.5kg of DEHP per shift. There are 7 shifts per 2-week period. Operator training when working in these areas and specific employee training when working with DEHP.	n/a	All waste potentially containing DEHP is sent for incineration off-site by a licensed hazardous waste contractor.	The level of DEHP in waste effluent is at or below the Limit of Detection (LOD). There is no measurable release of DEHP to the atmosphere.	Water: no release to water Air: no release to air Soil: no release to soil	9.2.1
WCS 1	PROC 5: Manual shaking, mixing and opening of formulation bottle. Indoors with LEV	<1	Vented booth or extracted enclosure.	Short term exposure (typically 15 minutes per hour across all WCS) in a daily shift exposure of up to 12 hours. There are 7 shifts per 2-week period equating to an average of 42 hours per week. Operator training when working in these areas and	Chemically resistant gloves (tested to EN374), coveralls and eye protection.	Low volatility liquid, ca. 5% DEHP content in the formulation	n/a	n/a	9.2.2

				specific employee training when working with DEHP.					
WCS 2	PROC 8b: Transfer and sampling of formulation bottle contents. Indoors with LEV	<1	Vented booth or extracted enclosure.	Short term exposure (typically 15 minutes per hour across all WCS) in a daily shift exposure of up to 12 hours. There are 7 shifts per 2-week period equating to an average of 42 hours per week. Operator training when working in these areas and specific employee training when working with DEHP.	Chemically resistant gloves (tested to EN374), coveralls and eye protection.	Low volatility liquid, ca. 5% DEHP content in the formulation	n/a	n/a	9.2.3
WCS 3	PROC 10: Pouring formulation fluid for application and use of wipes, Indoors with LEV	<1	Vented booth or extracted enclosure.	Short term exposure (typically 15 minutes per hour across all WCS) in a daily shift exposure of up to 12 hours. There are 7 shifts per 2-week period equating to an average of 42 hours per week. Operator training when working in these areas and specific employee training when working with DEHP.	Chemically resistant gloves (tested to EN374), coveralls and eye protection.	Low volatility liquid, ca. 5% DEHP content in the formulation	n/a	n/a	9.2.4
WCS 4	PROC 1: Diffusion Bonding and superplastic forming	<1	A closed process, indoors, no likelihood of exposure.	Short term exposure (typically 15 minutes per hour across all WCS) in a daily shift exposure of up to 12 hours. There are 7 shifts per 2-week period equating to an average of 42 hours per week.	Chemically resistant gloves (tested to EN374), coveralls and eye protection	Low volatility liquid, ca. 5% DEHP content in the formulation	n/a	n/a	9.2.5

				Operator training when working in these areas and specific employee training when working with DEHP.					

Abbreviations: WCS=Worker contributing scenario, ECS=Environmental Contributing Scenario,* ERC=Environmental Release Category (or spERC if available) , PROC= Process category, LEV=Local Exhaust Ventilation, PPE=Personal Protective Equipment