

Registration, Evaluation, Authorization, and Restriction of Chemicals

## **Background**

To evaluate the risk of business disruption due to REACh non-compliance across our supply chain, we have included REACh content supplier assessments. Supplier assessments are scheduled based on location, type of work performed for P&W, and previous assessment results. The highest risk suppliers will receive more frequent and more comprehensive reviews. Assessment focus areas are: overall system to manage REACh in supplier's own facility and subtier supply base, safe-use communications outside of the P&W shipping system, substance declarations, authorizations for the use of substances that have sunset or will soon sunset and management of government reporting obligations, as applicable.

The following request is per the latest UTC terms and conditions found in the following link: http://www.utc.com/Suppliers/Pages/Terms-and-Conditions.aspx

Assessment Date:		<u> </u>		
Name of Assessor				
Organization:	• •	ent/Field Rep	□ Quality	□ Other
Supplier Name:				
Site Address:				
Vendor Code:				
Site REACh Conta Phone: Email:				
Customer:	□ PWC	□ PWA	□Both	
Processes (Mark	all that apply):	_	al Equipment Ma	inufacture Overhaul (Aftermarket Activities)

Page: 1 of 10



## Registration, Evaluation, Authorization, and Restriction of Chemicals

Latest Terms and Conditions Nov. 2016	Q#	Applies to	Question	Auditor Guidance	Conclusion
25.1	1	This question applies to all suppliers	Does the Supplier have an effective process to monitor the REACh regulation, assess applicability to the Supplier's business and comply with its requirements?	1a.Does the supplier have and can the supplier demonstrate a regulatory monitoring system  Yes  No  1b.Can the supplier adequately explain how they determine whether/how REACh applies to their business?  Yes  No  1c. Can the supplier provide an example of action taken to comply, if required  Yes  No  A yes to 1a, 1b, and 1c is OK.  A "no" in 1a, 1b, or 1c is Opportunity.	Ok Opportunity for Improvement N/A N/E

Assessor: Please very briefly describe the supplier's process to monitor the REACh regulation and determine if chemical substances on the Candidate list are used in their manufacturing process (You may attach additional sheets and/or include screenshots, if necessary, to provide required information.):

2	This question applies to Design Responsible suppliers.  This question is N/A for Build to Print suppliers.  This question is N/A for MRO ONLY suppliers;	For PWA / PWC OEM parts ONLY: Does the Supplier have a process to identify and provide P&W with a declaration of substances on the Candidate List that are used in products it designs for P&W?	2a. Does the supplier have a process in place to track Candidate List substances used in products it designs for P&W?  Yes No  If "yes", continue to 2b. If "no", this is an Opportunity.  2b. Does the supplier have a process to calculate if substance weight exceeds 0.1% of the part (article) weight?  Yes No  If "yes" to 2b is OK.  If "no" this is an Opportunity	Ok Opportunity for improvement N/A N/E
---	--	---	--	--

Effective Date: 01/29/18

Revision Date: 01/29/18

Page: 2 of 10



Registration, Evaluation, Authorization, and Restriction of Chemicals

Assessor: Please very briefly describe the systems / processes supplier has in place in order to respond to declaration request (You may attach additional sheets and/or include screenshots, if necessary, to provide required information.):

		This question	For PWA / PWC	3a. Does the supplier ship to or within	
		applies to all	OEM and/ or MRO	the EEA?	
		suppliers.	parts ONLY: Does	Yes No	
			the Supplier		
			provide safe use	If "yes", continue to 3b. If not, this	
			information to	question does not apply.	
			recipients of		
			articles shipped to	3b. Does the supplier ship articles that	
			or within the EEA?	contain greater than .1% of an SVHC?	
				Yes No	
				If "yes", continue to 3c. If not, this	Ok
				question does not apply	
				,	Opportunit
25.1				3c. Can the supplier demonstrate	for
25.3	3			communication of safe use information	Improveme
25.6				for articles that contain greater than	
				.1% of an SVHC to/within the EEA?	N/A
				Yes No	
					N/E
				A "yes" to 3c is OK	
				A "no" is Opportunity	
				(For P&W Build to Print suppliers:	
				Safe Use Information is provided if	
				shipping via PW Supplier Portal/SNC; If	
				not shipping via SNC, Safe Use	
				Information can be downloaded from	
				P&W REACh websites)	

Assessor: Please very briefly describe supplier's process for providing Safe Use Info to the article recipients. (You may attach additional sheets and/or include screenshots, if necessary, to provide required information.):

Effective Date: 01/29/18 Page: 3 of 10

Copies printed from online system are uncontrolled – verify current issue before use



## Registration, Evaluation, Authorization, and Restriction of Chemicals

25.1 25.2 25.6	4	This question applies to all suppliers.	Does the Supplier have an effective process to monitor its sub tier suppliers' compliance with the REACh regulation?	4a. Does the supplier have sub-tiers? Yes No  If "yes" to 4a, continue to 4b. If 'no', question is not applicable.  4b. Can the supplier demonstrate a process/system that verifies supplier is monitoring their sub tiers compliance with REACh? Yes No  A "yes" to 4b is OK	Ok Opportunity for Improvement N/A N/E
				A "yes" to 4b is Ok A "no" to 4b is Opportunity	

Assessor: Please very briefly describe the supplier's process to monitor sub tiers' compliance to the REACh regulation (You may attach additional sheets and/or include screenshots, if necessary, to provide required information.):

			1		
		This question	For P&W / PWC	5a. Is the supplier using/importing	
		applies to	OEM and/or MRO	banned Annex XIV substances both on	
		suppliers	parts ONLY: Is the	products and in manufacturing	
		located in the	Supplier importing	processes?	
		EEA.	or using any	Yes No	
			banned <i>Annex XIV</i>		
			substances in	If "yes" continue to 5b. If 'no' question	Ok
			accordance with a	does not apply.	
			government-issued	,	Opportunity
25.1			Authorization?	5b. Can the supplier provide an	for
25.2	5			authorization or authorization	Improvement
				application number for banned	
				substances?	N/A
				Yes No	
				163	N/E
				Authorization Example: REACh/14/1/0	
				Application Example: 0001-01	
				Application Example, 0001-01	
				A "yes" to 5b is OK	
				1	
				A "no" is an Opportunity	

Effective Date: 01/29/18

Revision Date: 01/29/18



Registration, Evaluation, Authorization, and Restriction of Chemicals

		• •	reach substance used, if provided (You may ide required information.):	attach
		• •	the state of the s	Ok Opportunity for Improvement N/A
			question is not applicable.	N/E
			6c. Did the supplier report to ECHA per article 7?	
			Yes No	
			A "Yes" to 6c is OK	
 	<u> </u>	<u> </u>	A "No" is Opportunity	1

Assessor: Please briefly describe supplier's process to track and report information to ECHA, if required (You may attach additional sheets and/or include screenshots, if necessary, to provide required information.):

Effective Date: 01/29/18 Page: 5 of 10 Revision Date: 01/29/18 Revision # 6

**ITAR** 



## Registration, Evaluation, Authorization, and Restriction of Chemicals

# Glossary

SVHC: Substance of High Concern.

Cat1: Design responsible supplier

BTP: Build to print supplier (P&W design)

EEA: European Economic Area

N/A: Not applicable

N/E: Not evaluated

OEM: Original Equipment Manufacturer

MRO: Maintenance, Repair and Overhaul

Annex XIV List: Substances that are banned within the European Economic Area (EEA) and can only be used with proper authorization from ECHA. Articles containing substances on the Annex XIV List require safe use information if shipping to or within the European Economic Area. (See link below)

Candidate List: Substances identified by ECHA to be substances of very high concern (SVHC) and hazardous to human health and the Environment. Articles containing >.1% of any substance on the Candidate List require safe use documentation if shipping to/from or within the EEA. (See link below)

Declaration: Information provided on request by a supplier to its customer about REACh-regulated substances in its products or processes that enables the customer to comply with its REACh regulatory obligations..

ECHA: European Chemicals Agency – Regulatory agency that administers the REACh regulation on behalf of the European Union. <a href="https://echa.europa.eu/">https://echa.europa.eu/</a>

PWA REACh Site: http://www.pw.utc.com/REACH and Materials of Concern

Revision Date: 01/29/18 Revision # 6

Copies printed from online system are uncontrolled – verify current issue before use

Effective Date: 01/29/18



## Registration, Evaluation, Authorization, and Restriction of Chemicals

PWC REACh Site: <a href="http://www.pwc.ca/en/REACH">http://www.pwc.ca/en/REACH</a>

Safe use information: Information for the recipient of an article on how to use the article safely. Required for parts shipped to/within the EEA that contain greater than 0.1% of the Candidate list substance (SVHC).

#### Risk/Intent of the Questions:

Question	REACh Compliance	Business Risk
1	REACh Management	Risk of business disruption for non-compliance. REACH is a dynamic/complex regulation, with numerous deadlines and requirements that extend up/down the supply chain.
2	Substance Declaration to P&W	Required for Safe Use Documents (design-responsible suppliers) and Authorization of substance use (build to print suppliers)
3	Safe Use Information	Non-compliance could prevent a supplier from shipping parts containing regulated substances to/within the EEA
4	Sub Tier Monitoring	Evaluates the supplier's management of REACh risk with its suppliers, just as P&W is doing with its first-tier suppliers
5	Valid Authorizations for Banned Substances	Evaluates an EEA supplier's ability to legally procure and use a substance needed to manufacture or repair P&W parts.
6	Annual Reporting to ECHA	Evaluates an EEA supplier's ability to comply with annual government reporting obligations, if applicable.

Example of Application Numbers

Application Number Format: #### - ##

Page: 7 of 10



## Registration, Evaluation, Authorization, and Restriction of Chemicals

Application Number	Name	CAS Number	Applicant(s)	Use name	Status	Entry Nr in Annex XIV
0001-01	Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	Rolls-Royce plc	The processing	Commission	4
0002-01	Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	ARKEMA FRANCE	Formulation of		4
0002-02	Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	ARKEMA FRANCE	Industrial use	Application v	4
0003-01	Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	Grupa Azoty Zakłady Azotowe Kędzierzyn S.A.	Formulation of	Pending deci	4
0003-02	Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	Grupa Azoty Zakłady Azotowe Kędzierzyn S.A.	Industrial use	Pending deci	4
	Bis(2-ethylhexyl) phthalate					

# Example of an Authorization number: Authorization Number Format: REACH/#/#/#

Date of decision	Substance name	Holder of the authorisation	Authorisation number	Authorised use	Date of expiry of review period	Reasons for the decision
7 August 2014	Bis(2-ethylhexyl) phthalate (DEHP) EC No: 204-211-0 CAS No: 117-81-7	Rolls-Royce plc PO Box 31, Derby Derbyshire DE24 OBJ UNITED KINGDOM	REACH/14/1/0	Processing of a stop-off formulation containing DEHP during the diffusion bonding and manufacture of aero engine fan blades	21 February 2022	Risk is adequately controlled in accordance with Article 60(2) of Regulation (EC) No 1907/2006.  There are no suitable alternatives at present and search for technically feasible alternatives is ongoing under a 5-10 year research programme.

https://echa.europa.eu/applications-for-authorisation-previous-consultations

Annex XIV List Page

Link:

https://echa.europa.eu/authorisation-list

Effective Date: 01/29/18

Revision Date: 01/29/18

Revision # 6

Copies printed from online system are uncontrolled – verify current issue before use

**ITAR** 



## Registration, Evaluation, Authorization, and Restriction of Chemicals

#### Substances on the Annex XIV List

Name 🗘 expand / collapse	EC no. 0	CAS no. 0	Entry no. 🗘	Latest application date 🗘	Sunset Date 0
5-tert-butyl-2,4,6-trinitro-m-xylene (Musk xylene)	201-329-4	81-15-2	01	21/02/2013	21/08/2014
4,4'- Diaminodiphenylmethane (MDA)	202-974-4	101-77-9	02	21/02/2013	21/08/2014
Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified gamma-hexabromocyclododecane EC no.: -    CAS no.: 134237-52-8	-		03	21/02/2014	21/08/2015
beta-hexabromocyclododecane BC no.: -   CAS no.: 134237-51-7					
1,2,5,6,9,10-hexabromocyclodecane EC no.: 221-695-9   CAS no.: 3194-55-6					
Hexabromocyclododecane EC no.: 247-148-4   CAS no.: 25637-99-4					
alpha-hexabromocyclododecane EC no.: -   CAS no.: 134237-50-6					
Bis(2-ethylhexyl) phthalate (DEHP)	204-211-0	117-81-7	04	21/08/2013	21/02/2015
Benzyl butyl phthalate (BBP)	201-622-7	85-68-7	05	21/08/2013	21/02/2015
Dibutyl phthalate (DBP)	201-557-4	84-74-2	06	21/08/2013	21/02/2015

# Candidate List page

Link: <a href="https://echa.europa.eu/\_information-on-chemicals/candidate-list-substances-in-articles-table">https://echa.europa.eu/\_information-on-chemicals/candidate-list-substances-in-articles-table</a>
Example of substances on Candidate List



## Registration, Evaluation, Authorization, and Restriction of Chemicals

	CAS
Name	Number
Bis (2-ethylhexyl)phthalate (DEHP)	117-81-7
Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified: Alphahexabromocyclododecane, Beta-hexabromocyclododecane Gamma-hexabromocyclododecane	25637-99- 4"3194-55- 6"134237-50- 6"134237-51- 7"134237-52-8
Aluminosilicate Refractory Ceramic Fibres are fibres covered by index number 650-017-00-8 in Annex VI, part 3, table 3.1 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, and fulfil the three following conditions: a) oxides of aluminium and silicon are the main components present (in the fibres) within variable concentration ranges b) fibres have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometres (µm) c) alkaline oxide and alkali earth oxide (Na2O+K2O+CaO+MgO+BaO) content less or equal to 18% by weight	
Dibutyl phthalate (DBP)	84-74-2
Diisobutyl phthalate	84-69-5
Boric acid	10043-35- 3"11113-50-1
Diazene-1,2-dicarboxamide (C,C`-azodi(formamide)) (ADCA)	123-77-3 1303-96-4"1330-
Disodium tetraborate, anhydrous	43-4"12179-04-3
1-Methyl-2-pyrrolidone	872-50-4
Lead titanium zirconium oxide	12626-81-2
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	85535-84-8
Bis (pentabromophenyl) ether (decabromodiphenyl ether) (DecaBDE)	1163-19-5
<u>Diboron</u> trioxide	1303-86-2
Lead monoxide (lead oxide)	1317-36-8
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1
4-Nonylphenol, branched and linear, ethoxylated [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, ethoxylated covering UVCB- and well-defined substances, polymers and homologues, which include any of the individual isomers and/or combinations thereof]	
Orange lead (lead tetroxide)	1314-41-6
Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	12656-85-8
Lead sulfochromate yellow (C.I. Pigment Yellow 34)	1344-37-2
Benzyl butyl phthalate (BBP)	85-68-7

# **Revision History:**

Revision Date: 01/29/18

Revised By	Date	Description of changes	Rev#
K. Bennett	01/16/2018	Updated to include MRO to the questionnaire.	Rev 6

Revision # 6