

Document No: CC014	Issue: 06	Effective date: 05/12/2023
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Document Title:
 Renishaw chemical composition standard.

Summary / Scope:
 All purchased items, products, sub-assemblies, materials, substances, and chemicals procured by Renishaw for use in saleable product must comply with the requirements and restrictions of this standard unless EXPLICITLY indicated otherwise on Renishaw’s specifications/drawings or purchase order.
 This document forms part of Renishaw’s terms and conditions of purchase. It is the responsibility of the Supplier to ensure they have consulted the latest version of this standard (available through the supplier portal) and that all product supplied complies.
 Non-compliances must be reported to productsafety@renishaw.com immediately.

Reason for Issue / Nature of Change:
Second issue: Restructure into the following sections: EU Substance Restrictions, EU Substances Reporting and Conflict Minerals Reporting. Global Substance Restrictions have been added. Cobalt added to CMR section.
Third issue: Update to include US TSCA restrictions under 40CFR 751 and 40 CFR 745.
Fourth Issue: Update to include amendments to REACH Annex XVII Entry 68 and C9-C14 PFCAs and phased restrictions.
Fifth Issue: Inclusion of requirement for suppliers to report PFAS content of supplied items.
Sixth Issue: Updated to name POPs relevant to our business. Insecticides etc are not included.

Distribution: GQMS on SharePoint, Renishaw Suppliers Portal			
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Introduction

The purpose of this standard is to inform suppliers to Renishaw plc of restrictions relating to certain substances, either on their own, as mixtures, or within articles. It is a requirement that all suppliers of items, components products, sub-assemblies, materials, substances, and chemicals procured by Renishaw for use in saleable products comply with the requirements and restrictions of this standard unless EXPLICITLY indicated otherwise on Renishaw’s specifications/drawings or Purchase Order.

Many of the restrictions in this standard originate in national or international regulation. These restrictions shall apply even when the Supplier believes their product to be out of scope, exempt, or otherwise outside the reach of the legislation unless explicitly stated in this standard.

References

Reg. (EC) No 1907/2006	Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
Directive 2011/65/EU	Restriction of the use of certain hazardous substances in EEE (recast) (ROHS2)
Directive (EU) 2015/863	Amending Annex II to Directive 2011/65/EU (ROHS3)
H.R.4173	Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank)
Japan CSCL	Japan Chemical Substances Control Law
Stockholm Convention	Restriction of Persistent Organic Pollutants (POPs)
Directive 2006/66/EC	EU Battery Directive, as amended by 2013/56/EU
Directive 94/62/EC	EU Packaging and packaging waste Directive, as amended
40CFR 741 and 745	US Toxic Substances Control Act (Various Sections)
TSCA Section 8(a)(7)	US PFAS reporting requirements
Directive 2008/98/EC	EU Waste Framework Directive (SCIP)

Additional references are provided in the section on Global Substance Restrictions.

EU Substance Restrictions

Substance / category	Control origin	Control type	Threshold percentage	Notes
Lead	ROHS2	Prohibited	0.1%	RoHS thresholds are % by weight of homogeneous materials.
Mercury	ROHS2	Prohibited	0.1%	
Cadmium	ROHS2	Prohibited	0.01%	
Hexavalent chromium	ROHS2	Prohibited	0.1%	Renishaw requires that all purchased products meet these restrictions, even if they are out of scope of the legislation, unless subject to a formal exemption
Polybrominated biphenyls (PBB)	ROHS2	Prohibited	0.1%	

Substance / category	Control origin	Control type	Threshold percentage	Notes
Polybrominated diphenyl ethers (PBDE)	ROHS2	Prohibited	0.1%	under Annex III of the Directive. Exemptions must be communicated to Renishaw. ROHS3 substance restrictions have been prohibited from 22 nd July 2019 and are also regulated as SVHCs under REACH legislation, below.
Bis(2-ethylhexyl) phthalate (DEHP)	ROHS3	Prohibited	0.1%	
Butyl benzyl phthalate (BBP)	ROHS3	Prohibited	0.1%	
Dibutyl phthalate (DBP)	ROHS3	Prohibited	0.1%	
Diisobutyl phthalate (DIBP)	ROHS3	Prohibited	0.1%	

Note all above phthalates are restricted to 50ppm if they are in wearable, skin contact items (CA Proposition 65)

EU Substances Reporting

Substance / category	Control origin	Control type	Threshold percentage	Notes
ECHA published “Candidate List of substances of very high concern for Authorisation”	REACH	Declarable	0.1%	REACH and SCIP thresholds are by weight of article. Suppliers are responsible for regularly consulting the official candidate list published at: https://echa.europa.eu/candidate-list-table
	SCIP			Communication of SVHC content greater than the threshold percentage must be submitted to Renishaw via productsafety@renishaw.com – communications must include the name of the SVHC and any instructions required for safe use. Where SCIP numbers are available, these can be provided in place of a REACH declaration

PFAS (Per and PolyFluoroalkyl Substances) Reporting

Substance / category	Control origin	Control type	Threshold percentage	Notes
US Reporting requirements under TSCA Section 8(a)(7).	TSCA	Reportable	All levels	In October 2023 the USA introduced a requirement to report content of PFAS in products supplied into the USA. This requires you to name of all PFAS present, provide their CAS numbers and weights by % of article.
PolyFluoroalkyl Substances. EU Proposal under REACH Annex XVII .	REACH	Declarable		In February 2023, the EU published its draft for restricting use of all PFAS. Decisions have yet (in 2023) to be finalised on which PFAS types and uses will be permitted.

Conflict Minerals Reporting

Substance / category	Control origin	Control type	Threshold percentage	Notes
Gold, columbite-tantalite (coltan), cassiterite, wolframite, or their derivatives, which are limited to tantalum, tin, tungsten (3TG), and cobalt	Dodd-Frank	Declarable	N/A	Suppliers have the responsibility to make best efforts to identify and disclose the use and origin of any Conflict Minerals that are necessary to the functionality or production of a product manufactured on behalf of Renishaw. Suppliers are required to identify the smelter/refinery for any such materials and for flowing down the requirements to their sub-tiers in the supply chain and shall supply this information to Renishaw using the latest Conflict Minerals Reporting Template (CMRT) and Cobalt Reporting Template (CRT)

Global Substance Restrictions

In addition to the restrictions and reporting requirements listed above, all substances and materials must comply with the following as applicable to the product or material supplied to Renishaw.

Substance	Restriction type	Limit	Application/ Reference
Asbestos and its compounds	Homogeneous material	Not detectable	Applies to all articles and materials. EU and global regulations.
Arsenic	Homogeneous material	<1000 ppm	Applies only to wood-based products. REACH Annex XVII (Entry 68)
AZO colorants and dyes	By weight of article	<30 ppm	Leather, textiles etc that may come in direct contact with human skin REACH Annex XVII (Entry 43)
Benzadiene -based dyes	Homogeneous materials	Not detectable	U.S. TSCA 40 CFR 721.1660

Substance	Restriction type	Limit	Application/ Reference
Bis(2-ethylhexyl) phthalate (DEHP)	Homogeneous materials	Wearable, skin contact items	CA Prop 65
Butyl benzyl phthalate (BBP)	Homogeneous materials	Wearable, skin contact items	CA Prop 65
Bisphenol A	Homogeneous materials	<300 ppm	Frequently touchable plastics CA Proposition 65
Cadmium and its salts	Homogeneous materials	<100 ppm	All items or materials to be used in Renishaw's products. EU RoHS
	Homogeneous materials	<75 ppm	Touchable surface material CA Proposition 65
	Total metals in packaging materials	<100 ppm	EU Packaging Directive 94/62/EC amended by EU 2018/852
	Within a battery	<5 ppm	International battery requirements
DecaBDE	No use	No use	Applies to all articles outside the scope of RoHS. EU 2017/227 REACH Annex XVII (Entry 67), POP Annex A TSCA Section 6(h)
Dechlorane Plus and its isomers	Product	Not intentionally added	Stockholm Convention POP
Di-isononyl phthalate (DINP)	Homogeneous materials	<1000 ppm	Touchable surfaces Proposition 65
Dibutyltin (DBT) and its compounds	Material by weight of tin	<1000 ppm	2009/425 EC, REACH Annex XVII (Entry 20)
Dibutyl phthalate (DBP)	Homogeneous materials	Wearable, skin contact items	CA Prop 65

Substance	Restriction type	Limit	Application/ Reference
Diocyltin (DOT) and its compounds	Material by weight of tin	<1000 ppm	Applies to skin contact articles only 2009/425 EC, REACH Annex XVII (Entry 20)
Nickel and nickel compounds	Exposure	< 0.5 µg/cm ² /week	Restrictions apply to skin contact REACH Annex XVII (27)
N,N'-Ditolyl-1,4- phenylenediamine	All products	Not intentionally added	Japan CSL
Trisubstituted Organostannic compounds (Including Triphenyl Tin)	Material by weight of tin	<1000 ppm	2009/425 EC, REACH Annex XVII (Entry 20)
Diisocyanates	By weight of substance/mixture	<1000 ppm or in accordance with 2020/1149 EC	2020/1149 EC, REACH Annex XVII (Entry 74)
Flame retardants (all types)	Homogeneous materials.	<1000 ppm	California TB-117 Upholstered furniture product.
Formaldehyde	By weight of article, or emissions as appropriate to material.	<300 ppm, (emission <1 ml/m ³)	300ppm in all materials. Emissions from composite wood products 40 CFR Part 770. TSCA Title VI compliant, CARB. EU 717 (E1)
Halogenated diphenyl methanes	No Use	Restricted. No Exemptions	Treated as PCBs 76/769 EEC, Japan CSCL
Hexabromocyclododecane (HBCDD)	Homogeneous material	<50 ppm	Stockholm Convention POP, Japan CSCL, Regulation (EU) 2019/1021
Hexachlorobutadiene (HCBd)	All products	Not intentionally added; Not incidentally present	TSCA PBT Rule, Japan CSCL
Hexabromobiphenyl	No use	Unintentional trace <10 ppm	Stockholm Convention POP, Japan CSCL

Substance	Restriction type	Limit	Application/ Reference
Hexabromodiphenyl ether and heptabromodiphenyl ether	No use	Unintentional trace <10 ppm	Stockholm Convention POP, Japan CSCL
Hexachlorobenzene	No use	Unintentional trace <10 ppm	Stockholm Convention POP, Japan CSCL
Lead and its compounds	Homogenous material for all RoHS materials.	<1000 ppm	RoHS (applies in all cases except where exemptions exist) Check latest exemptions
	Cable jacketing used in external cables	<300 ppm	California Proposition 65
	Paints, inks, dyes,	Not Detected	EU Packaging Directive 94/62/EC amended by EU 2018/852
	Packaging materials	Total metals <100 ppm	EU Packaging Directive 94/62/EC amended by EU 2018/852
	Within a battery	<40 ppm	International battery requirements.
	MDA 4,4'- diaminodiphenylmethane	Article	<1000 ppm
Mercury and its compounds	Homogenous material for all RoHS materials.	<1000 ppm	RoHS (applies in all cases except where exemptions exist) Check latest exemptions
	Paints, inks, dyes,	Not Detected	EU Packaging Directive 94/62/EC amended by EU 2018/852
	Packaging materials	Total metals <100 ppm	EU Packaging Directive

Substance	Restriction type	Limit	Application/ Reference
			94/62/EC amended by EU 2018/852
	Within a battery	<5 ppm	International battery requirements.
(MOCA) 2,2'-dichloro-4,4'-methylenedianiline	All products	<1000 ppm	EU REACH regulation (Annex XIV)
Monomethyl-dibromo-diphenyl methane bromobenzylbromotoluene (DBBT)	Cable jacketing used in external cables	<300 ppm	California Proposition 65
Monomethyl dichlorodiphenyl methane (Ugilec 121 or Ugilec 21)	Paints, inks, dyes,	Not Detected	EU Packaging Directive 94/62/EC amended by EU 2018/852
Monomethyl tetrachlorodiphenyl methane (Ugilec 141)	Packaging materials	Total metals <100 ppm	EU Packaging Directive 94/62/EC amended by EU 2018/852
Ozone Depleting Substances Chlorofluorocarbons (CFCs, HCFCs, HBFCs, carbon tetrachloride, etc.)	Within a battery	<40 ppm	International battery requirements.
	No Use	Not detectable	Class II – HCFCs Stockholm Convention POP
4-Nonyl phenol	Restricted in leather and other material	<1000 ppm	REACH Annex XVII (Entry 46)
PAH	Touchable surfaces	<1 ppm 8 named PAHs	CA Proposition 65
	Touchable surfaces	<10 ppm 10 named PAHs	CA Proposition 65, EU 1272/2013
	Touchable surfaces	<10 ppm Total named PAHs	CA Proposition 65, EU 1272/2013
Perchlorates	By weight of battery	<0.006 ppm of the product	Coin cell batteries, California Assembly Bill No. 826, US DTSC
Pentachlorobenzene	No Use	No Use	Stockholm Convention POP

Substance	Restriction type	Limit	Application/ Reference
Pentachlorophenol and its salts and esters	Restricted in Wood based materials	<3 ppm	Swiss DTRV, Stockholm convention, REACH Annex XVII (Entry 22)
Phenol,2-(2H-benzotriazol-2-yl)- 4,6-bis(1, 1-dimethylethyl)	Not intentionally added	Not intentionally added	Japan (Law Concerning the Examination and Regulation of Manufacture)
Perfluorocarbons (PFC)	No use as a gas	No Use	Danish Statutory Order no. 552. Austria ordinance on fluorinated and fully fluorinated hydrocarbons
Perfluorooctane sulfonate (PFOS)	in any distinct part of an article.	<1000 ppm	REACH Annex XVII (1), EU 757/2010 Permitted for use in photoresists.
	of a coated material	<1 µg/m ²	REACH Annex XVII (1), EU 757/2010
Polybrominated biphenyl ethers (PBBEs), Polybrominated biphenyl oxides (PBBOs)	Homogeneous material	<1000 ppm	RoHS, State of Washington Title 70 RCW, Canada Environmental Protection Act
Polychlorinated terphenyls (PCTs)	Homogeneous material	<50 ppm	REACH Annex XVII (1), 85/467/EEC Excludes lubricating oils and adhesives.
Polychlorinated Biphenyls(PCBs)	Homogeneous material	Not intentionally added. Incidental presence <0.1 ppm	Stockholm Convention POP REACH 1907/2006 & amendments
Polychlorinated and polybrominated dioxins and furans	Homogeneous material	Not detectable	Stockholm convention (POP)
Polychlorinated Napthalenes	Homogeneous material	Not detectable	Stockholm convention (POP), Japan Act No 117
PFOS and its salts (PFCAs) PFHxS	Homogeneous material	Not intentionally added. Incidental	REACH Art 57

Substance	Restriction type	Limit	Application/ Reference
		presence <25ppb (linear and branched isomers) and its salts < 10 ppm	Stockholm Convention POP
PFOA and C9-C14 PFCAs	Homogeneous material	<0.0025 ppm (<0.0260 ppm sum C9-C14 related substances)	REACH Annex XVII (Entry 68) Note phasing of restrictions for semiconductors. Prop 65
PFOA salts (total)	Homogeneous material	<1 ppm	REACH Annex XVII (Entry 68) Stockholm Convention POP exemption for certain industrial applications
Dimethylfumarate (DMFu)	By weight of article	<0.1 ppm	Reach Annex XVII restriction (Entry 61) all articles
Tar oils and creosotes	No use	Not detectable	Restricted in wood and wood materials. REACH Annex XVII (Entry 31)
Tetrabromodiphenyl ether and pentabromodiphenyl ether	No Use	No Use	Presence in recycled articles in accordance with Part V of Stockholm Convention
Tributyltin compounds (TBT)	All products	Not intentionally added; <1000 ppm by weight of tin if incidentally present	EU Regulation (EC) 1907/2006, Annex XVII (EU REACH)
Tris (2,3 dibromopropyl) phosphate and Tris-(aziridiny) - phosphineoxide	No Use	Not detectable	Textiles and in contact with skin REACH Annex XVII (Entry 4)
Toluene	Homogeneous material	<1000 ppm	REACH Annex XVII (Entry 48)

Substance	Restriction type	Limit	Application/ Reference
			restriction does not apply to Electronic and Electrical items.
UV320 (Phenol, 2-(2H-benzotriazol-2-yl)-4,6-bis(1,1-dimethylethyl), 2-benzotriazol-2-yl-4,6-di-tertbutylphenol)	All products	Not intentionally added	Japan (CSCL, "Kashinho"), Law No. 117 of 1973; EU Regulation (EC) 1907/2006, Annex XVII (EU REACH)
UV328 (2-(2Hbenzotriazol-2-yl)- 4,6-di-tertbutylphenol)	All products	Not intentionally added	Stockholm Convention POPBBP
Bisphenol A	Touchable surface material	<300 ppm	Proposition 65
Radioactive substances	Not intentionally added	Not intentionally added	Japan Law – Preventing radiation hazards
Short Chain Chlorinated Paraffins (SCCPs) C10-C13	By weight of article	<1500 ppm	EU 2015/2030 amending EC 850/2004, Japan Cabinet Order Stockholm Convention POP
Phenol, isopropylated phosphate (3:1) (PIP (3:1))	No use	No use	US TSCA 40CFR 751 (Excludes aviation and US DoD, hydraulic fluids, lubricants, greases, recycled plastics. Excludes adhesives and sealants until Jan 2025)
2,4,6-Tris(tert-butyl)phenol (2,4,6-TTBP)	By weight	<0.3%	US TSCA 40CFR 751 (if container <35 gallons (159litres) Japan CSCL)
Hexachlorobutadiene (HCBD)	No use	No use	US TSCA 40CFR 751

Substance	Restriction type	Limit	Application/ Reference
			Stockholm Convention POP
Pentachlorothiophenol (PCTP)	By weight	<1%	US TSCA 40CFR 751
Lead based paints	No use	No use	US TSCA 40 CFR 745