

Introduction

The PR Negative List is divided into three different categories: Banned, Restricted and Substances of Concern.

It provides information about restrictions on the use of Chemical substances in PR electronics' production processes, materials and product components as well as packaging.

Unless stated otherwise, the restrictions on a substance in this list affect the use of the substance in pure form, mixtures and purchased articles.

Banned substances are substances which are universally prohibited, which means prohibited to use, or put on the market, regardless of application.

Restricted substances are prohibited in certain applications relevant to the products of PR electronics A/S. A restricted substance may be used if the application is unmistakably outside the scope of the legislation in question.

Substances of Concern are substances of which the use shall be monitored. This includes substances currently being evaluated for regulations applicable to the Banned or Restricted categories, or substances with legal demands for monitoring. Product owners shall be aware of the risks associated with the continued use of a Substance of Concern.

Legislation in the Negative List

The PR Negative List is based on the following legislation.

EU Directive 65/2011/EU RoHS 2 + EU Directive 863/2015/EU RoHS3
China RoHS2
IMO MEPC 269 (68)
EU Directive 66/2006/EC on batteries and accumulators and waste batteries and accumulators
EU Directive 94/62/EC on packaging and packaging waste
US Dodd-Frank Wall Street Reform and Consumer Protection Act, Section 1502
EU Regulation 2017/821 on supply chain due diligence obligations for importers of tin, tantalum, tungsten and their ores, and gold originating from conflict-affected and high-risk areas

Substances regulated by the EU Regulation 1907/2006/EC REACH are not listed in PR Negative List, please refer to below links

[REACH Substance of Very High Concern \(Candidate List\)](#)
[EU Regulation 1907/2006/EC REACH Annex XIV \(Authorisation List\)](#)
[EU Regulation 1907/2006/EC REACH Annex XVII](#)
[REACH: Current recommendations for inclusion in the Authorisation List](#)
[REACH: Substances on the Registry of submitted SVHC proposal intention](#)
[REACH: Substances on the Registry of current SVHC proposal intention](#)
[REACH: Restrictions under consideration \(if proposed restriction is applicable to Banned or Restricted categories\)](#)

Changes from previous revision

Changes will be indicated in the Modified post column.

Terminology

Article: Products, spare parts, components, materials, preparations and packaging materials

CAS No.: Chemical Abstract Service number also known as CAS RNs, CAS Numbers or CAS #, is a unique number for identification of chemical substances.

REACH:

Registration, Evaluation and Authorisation and Restriction of Chemicals is a regulation of the European Union, adopted to improve the protection of human health and the environment from the risks that can be posed by chemicals

Threshold:

The highest level of concentration that is legal to use in the preparations and articles.
Banned substances can also have thresholds due to that they sometimes can be present in other compounds and products. The banned substance can, for instance, be impurities or unintentional by-products from synthesis. The compound/product that contain a banned substance in concentrations below the threshold is not banned.

Chemical Name	CAS No.	Max allowable concentration	Categorization	Modified post
EU Regulation 1907/2006/EC REACH				
REACH Substance of Very High Concern (Candidate List)		A Candidate list with particularly problematic chemicals (registration required)	Restricted	
EU Regulation 1907/2006/EC REACH Annex XIV (Authorisation List)		An Authorization list containing banned chemicals	Banned	
EU Directive 65/2011/EU RoHS 2				
EU Directive 863/2015/EU RoHS3				
Lead	Several	Restricted to place on market or use in following applications: - Electric and electronic tools - Monitoring and control instruments including industrial monitoring and control instruments Threshold 0,1 % in electric and electronic equipment	Restricted	
Mercury	Several	Restricted to place on market or use in following applications: - Electric and electronic tools - Monitoring and control instruments including industrial monitoring and control instruments Threshold 0,1 % in electric and electronic equipment	Restricted	
Cadmium	Several	Restricted to place on market or use in following applications: - Electric and electronic tools - Monitoring and control instruments including industrial monitoring and control instruments Threshold 0,01 % in electric and electronic equipment	Restricted	
Hexavalent chromium	Several	Restricted to place on market or use in following applications: - Electric and electronic equipment - Monitoring and control instruments including industrial monitoring and control instruments Threshold 0,1 % in electric and electronic equipment	Restricted	
Polybrominated biphenyls (PBB)	Several	Restricted use in the following applications: - Electric and electronic equipment - Monitoring and control instruments including industrial monitoring and control instruments Threshold 0,1 % in electric and electronic equipment	Restricted	
Polybrominated diphenyl ethers (PBDE)	Several	Restricted use in the following applications: - Electric and electronic equipment - Monitoring and control instruments including industrial monitoring and control instruments Threshold 0,1 % in electric and electronic equipment	Restricted	
Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	Restricted use in the following applications: - Electric and electronic equipment - Monitoring and control instruments including industrial monitoring and control instruments Threshold 0,1 % in electric and electronic equipment	Restricted	
Butyl benzyl phthalate (BBP)	85-68-7	Restricted use in the following applications: - Electric and electronic equipment - Monitoring and control instruments including industrial monitoring and control instruments Threshold 0,1 % in electric and electronic equipment	Restricted	
Dibutyl phthalate (DBP)	84-74-2	Restricted use in the following applications: - Electric and electronic equipment - Monitoring and control instruments including industrial monitoring and control instruments Threshold 0,1 % in electric and electronic equipment	Restricted	
Diisobutyl phthalate (DIBP)	84-69-5	Restricted use in the following applications: - Electric and electronic equipment - Monitoring and control instruments including industrial monitoring and control instruments Threshold 0,1 % in electric and electronic equipment	Restricted	

China RoHS II				
Lead and its compounds	Several	Restricted to place on market or use in following applications: - Electric and electronic products Threshold 0,1 % in electric and electronic equipment	Restricted	
Mercury and its compounds	Several	Restricted to place on market or use in following applications: - Electric and electronic products Threshold 0,1 % in electric and electronic equipment	Restricted	
Cadmium and its compounds	Several	Restricted to place on market or use in following applications: - Electric and electronic products Threshold 0,01 % in electric and electronic equipment	Restricted	
Hexavalent chromium and its compounds	Several	Restricted to place on market or use in following applications: - Electric and electronic products Threshold 0,1 % in electric and electronic equipment	Restricted	
Polybrominated biphenyls (PBB)	Several	Restricted use in the following applications: - Electric and electronic equipment - Marine equipment Threshold 0,1 % in electric and electronic equipment	Restricted	
Polybrominated diphenyl ethers (PBDE)	Several	Restricted use in the following applications: - Electric and electronic equipment - Marine equipment Threshold 0,1 % in electric and electronic equipment	Restricted	
IMO MEPC 269 (68)				
Hydrobromofluorocarbons (HBFC)	Several	Threshold in IMO resolution 0 mg/kg	Restricted	
Chlorofluorocarbons (CFC)	Several	Threshold in IMO resolution 0 mg/kg	Restricted	
Halons	Several	Threshold in IMO resolution 0 mg/kg	Restricted	
Hydrochlorofluorocarbons (HCFC)	Several	Threshold in IMO resolution 0 mg/kg	Restricted	
1,1,1-Trichloroethane (Methyl chloroform)	71-55-6; 25323-89-1	Threshold in IMO resolution 0 mg/kg	Restricted	
Methyl bromide	74-83-9	Threshold in IMO resolution 0 mg/kg	Restricted	
Carbon tetrachloride	56-23-5	Threshold in IMO resolution 0 mg/kg	Restricted	
Radioactive substances	Several	Threshold in IMO resolution 0 mg/kg	Restricted	
Polychlorinated biphenyls (PCB)	Several	Threshold 50 mg/kg for marine equipment	Restricted	
Polychlorinated naphthalenes (PCN)	Several	Threshold 50 mg/kg for marine equipment	Restricted	
Chlorinated paraffins C10-C13 (SCCPs - Short chain chlorinated paraffins), Chloroalkanes C10-C13	85535-84-8	Threshold 1% for marine equipment	Restricted	
Anti fouling systems containing organotin compounds as a biocide	Several	Threshold 2500 total tin/kg for marine equipment	Restricted	
Asbestos	Several	Threshold 0 mg/kg in IMO resolution for marine equipment Temporary exemption for chrysotile in diaphragms for existing electrolysis installations.	Restricted	
Lead and its compounds	Several	Restricted to place on market or use in following applications: - Electric and electronic equipment - Marine equipment - Marine anti fouling Threshold 1000 mg/kg for marine equipment Threshold 0% for marine anti fouling	Restricted	
Mercury and its compounds	Several	Restricted to place on market or use in following applications: - Electric and electronic equipment - Marine equipment - Marine fouling prevention Threshold 1000 mg/kg for marine equipment Threshold 0% for marine anti fouling	Restricted	
Cadmium and its compounds	Several	Restricted to place on market or use in following applications: - Electric and electronic equipment - Marine equipment Threshold 100 mg/kg in IMO resolution for marine equipment	Restricted	
Hexavalent chromium and its compounds	Several	Restricted to place on market or use in following applications: - Electric and electronic equipment - Marine equipment Threshold 1000 mg/kg in IMO resolution for marine equipment	Restricted	

		Restricted use in the following applications: - Electric and electronic equipment - Marine equipment		
Polybrominated biphenyls (PBB)	Several	Threshold 50 mg/kg in IMO resolution for marine equipment	Restricted	
		Restricted use in the following applications: - Electric and electronic equipment - Marine equipment		
Polybrominated diphenyl ethers (PBDE)	Several	Threshold 1000 mg/kg in IMO resolution for marine equipment	Restricted	
EU Directive 66/2006/EC on batteries and accumulators and waste batteries and accumulators				
		Restricted to place on market or use in following applications: - Batteries, accumulators and button cells		
Mercury	Several	If the content is greater than 0,0005 % it has to be marked with Hg.	Restricted	
		Restricted to place on market or use in following applications: - Batteries, accumulators and button cells		
Cadmium	Several	If the content is greater than 0,002 % it has to be marked with Cd.	Restricted	
		Restricted to place on market or use in following applications: - Batteries, accumulators and button cells		
Lead	Several	If the content is greater than 0,004 % it has to be marked with Pb.	Restricted	
EU Directive 94/62/EC on packaging and packaging waste				
		Restricted to place on market or use in following applications: - Packaging materials		
Lead	Several	Threshold 100 ppm in packaging for lead, cadmium, mercury and hexavalent chromium combined. Does not apply for packaging entirely made of lead crystal glass	Restricted	
		Restricted to place on market or use in following applications: - Packaging materials		
Mercury	Several	Threshold 100 ppm in packaging for lead, cadmium, mercury and hexavalent chromium combined.	Restricted	
		Restricted to place on market or use in following applications: - Packaging materials		
Cadmium	Several	Threshold 100 ppm in packaging for lead, cadmium, mercury and hexavalent chromium combined.	Restricted	
		Restricted to place on market or use in following applications: - Packaging materials		
Hexavalent chromium	Several	Threshold 100 ppm in packaging for lead, cadmium, mercury and hexavalent chromium combined.	Restricted	
Conflict Minerals (US Dodd-Frank Act)				
		Substance of Concern Tin is classed as a Conflict Mineral in USA Country of origin has to be identified for conflict minerals	Substance of Concern	
Tin; cassiterite, including its compounds	Several			
		Substance of Concern Tantalum is classed as a Conflict Mineral in USA Country of origin has to be identified for conflict minerals	Substance of Concern	
Tantalum; coltan, including its compounds	Several			
		Substance of Concern Tungsten is classed as a Conflict Mineral in USA Country of origin has to be identified for conflict minerals	Substance of Concern	
Tungsten; wolframite, including its compounds	Several			
		Substance of Concern Gold is classed as a Conflict Mineral in USA Country of origin has to be identified for conflict minerals	Substance of Concern	
Gold	7440-57-5			
Conflict Minerals (EU Regulation)				
			Substance of Concern	Added 2019-01-29
Tin ores and concentrates				
			Substance of Concern	Added 2019-01-29
Tungsten ores and concentrates				
			Substance of Concern	Added 2019-01-29
Tantalum or niobium ores and concentrates				
Gold, unwrought or in semi-manufactured forms, or in powder with a gold concentration lower than 99,5 % that has not passed the refining stage			Substance of Concern	Added 2019-01-29