

#### Belimo Liste von verbotenen Substanzen:

Auszug aus den geltenden gesetzlichen Verboten oder Beschränkungen des Inverkehrbringens gefährlicher Stoffe (Deutschland, EU, CH und einigen anderen Ländern)

Status: August 2016

#### Belimo List of hazardous substances:

Excerpts from regulations, ban and restriction regarding hazardous substances (Germany, EU, CH and some other countries)

Status: August 2016

# Änderungsgeschichte / revision history

Revision / Date	Author; Remarks
13 Oct 2005	B.Kuster(Kbt); English and german version combined within ONE document. Added Cr6 coating under Metallic coatings.
27 Oct 2005	Kbt: Added and updated changes according to new release of the Siemens document SN 36350-2
01 Dec 2005	Kbt: PLM Version removed in footer. Revision history now on page 1
23 Sept 2006	Integrated into PLM
24 Oct 2006	Included date of document into header of PLM-document-name
20 May 2010	Kbt: Update to new status from SN36350-2 with status from January 2010
15-Aug-2013	Kbt: Updated list with REACH paragraph, inserted Asbest in list
22-Oct-2015	Kbt: New release with new date. Please check Link under ref 2
15-Aug-2016	TR: New release including additional hazardous substances based on new country
	regulations or application fields

## EU regulation 1907/2006 (REACH)

#### Deutsch

Der Lieferant muss sicherstellen, dass alle an Belimo Automation AG gelieferten Produkte, Bauteile und Komponenten frei sind von Stoffen, deren Verwendung durch Anhang XIV oder Anhang XVII der REACH<sup>1</sup> beschränkt sind und keine Stoffe aus der Kandidatenliste<sup>2</sup> zu REACH in einer Konzentration > 0.1 Gewichtsprozent enthalten. Andernfalls muss Belimo AG unverzüglich über vorhandene Stoffe und deren Konzentration informiert werden.

#### **English**

The supplier must guarantee that all products, parts and components, which are delivered to Belimo Automation AG, are free from substances, which are restricted by annex XIV or annex XVII of REACH<sup>1</sup> and do not contain any substances of the candidate list<sup>2</sup> of REACH in concentration > 0.1 % by weight. Otherwise Belimo AG must be informed about substances and their concentrations immediately.

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<sup>&</sup>lt;sup>1</sup> Regulation (EC) No 1907/2006 of 18.12.2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

<sup>&</sup>lt;sup>2</sup> http://echa.europa.eu/web/guest/candidate-list-table



Zusammengestellt aus BOMcheck Liste der beschränkten und deklarationspflichtigen Substanzen, Ed. June 2016 – for English see pages 4 and 5

## **Belimo Liste von verbotenen Substanzen:**

Auszug aus den geltenden gesetzlichen Verboten oder Beschränkungen des Inverkehrbringens gefährlicher Stoffe (Deutschland, EU, CH und einigen anderen Ländern)

Produkt / Produktteil	Status: Aug Verbotener Stoff	CAS-No.	Grenzwert	Aus- nah men	Gesetzliche Regelungen
			(Gew. %)		
Elektrische und elektro	nische Geräte				
Elektrische und elektronische	Blei	7439-92-1	0.1		EU 2011/65/EC(RoHS) CH ChemRRV Anh. 1.7, 1.9, 2.16(6)
Geräte ab 1. Juli 2006	Cadmium	7440-43-9	0.01		
	Quecksilber	7439-97-6	0.1		
	Sechswertiges Chrom (Cr <sup>VI</sup> )		0.1		
	Polybromierte Biphenyle (PBBs)		0.1		
	Polybromierte Diphenylether (PBDEs)				
ab 22. Juli 2019	Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	0.1		EU 2015/863 ("RoHS3")
	Butyl benzyl phthalate (BBP)	85-68-7	0.1		1
	Dibutyl phthalate (DBP)	84-74-2	0.1		1
	Diisobutyl phthalate (DIBP)	84-69-5	0.1		1
	Discourty printage (DIDI)	0.000	0.1		
Batterien	1	-I	1		I
Batterien und Akkumulatoren	Quecksilber, Cadmium, Blei und	Diverse,	Cd 0.001		DE BattG
Knopfzellen	ihre Verbindungen.	siehe oben	Hg 0.0001 Pb 0.004		EU 2006/66/EG CH ChemRRV Anh. 2.15
Elektrische Komponen					
Kondensatoren und	Halogenierte aromatische Stoffe		0.05/0.005		CH ChemRRV Anh. 2.14
Transformatoren			mono/polyh		
			alogeniert		DE ChemVerbotsV
					EU REACH Anh. XVII
	Polychlorierte Biphenyle (PCBs)	1336-36-3	0.005		US TSCA (15 USC2605
16 4 66 11					
Kunststoffteile		T =	1 1		I BE OL WALLEY
Eingefärbte Kunststoffe	Cadmium	7440-43-9	0.01		DE ChemVerbotsV
(pigments)					EU REACH Anh. XVII
<del></del>					CH ChemRRV Anh. 2.9
Flammhemmer in	Polybromierte Biphenyle (PBBs)		0.1		EU 2011/65/EC(RoHS)
Leiterplatten und	Polybromierte Diphenylether				CH ChemRRV Anh. 1.9
Kunststoffteilen	(PBDEs)	00500 50 0			ELL DE A OLL A SE NOVIL
	Octabromdiphenylether (OBDE)	32536-52-0			EU REACH Anh. XVII
	Pentabrombromdiphenylether	20524.04.0			DE ChemVerbotsV
Diehtus sesses	(PeBDE)	32534-81-9	4.0		CH ChemRRV Anh. 1.2
Dichtungsmassen	Kurzkettige Chlorparaffine (C <sub>10</sub> -C <sub>13</sub> )		1.0		CH ChemRRV Ann. 1.2
Kunststoffe und Gummi (ab					
1.8.2006)	Blei in Stahl		may 0.05		FIL 2044/65/50/Dallo
Metalllegierungen			max 0.35		EU 2011/65/EC(RoHS)
	Blei in Aluminium		max 0.4		
	Blei in Kupfer		max 4.0		
Metallschichten		<u>I</u>	1		1
Metallische Oberflächen	Cadmium	7440-43-9	n.a.		DE ChemVerbotsV
					EU REACH Anh. XVII
					CH ChemRRV Anh. 2.9
	Sechswertiges Chrom (CrVI)		0.1		2.16(2)
Zinkschichten	Cadmium	7440-43-9	0.025		CH ChemRRV Anh.
					2.16(3)
Verpackung			]		
Verpackungen und	Summe aller Schwermetalle [Blei,	Diverse,	0.01		DE VerpackV
Verpackungsbestandteile	Cadmium, sechswertiges Chrom	siehe oben	0.01		EU 94/62/EG
verpackungsbestaflütelle		SIGNE ODGIN			CH Chem RRV Anh.
	(CrVI), Quecksilber]				2.16(4)
		+	+		Z. 10(4)
Frzeugnisse mit Anetri	chen oder Lackierungen	L	1		L
Anstriche und Lackierungen	Cadmium und Cd-Verbindungen	Diverse,	0.01		CH ChemRRV Anh. 2.8
Anstrone und Lackierungen	Blei und Bleiverbindungen	siehe oben	0.01		OTT CHEININN AIII. 2.0
		5.55 65611	†		
		1			1

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Isolierungen				
Asbest (1332-21-4)	a. Aktinolith b. Amosit c. Anthophyllit d. Chrysotil e. Krokydolith f. Tremolit	77536-66-4 12172-73-5 77536-67-5 12001-29-5 12001-28-4 77536-68-6	0	CH ChemRRV Anh. 1.6 Ship recycling: SOLAS II- 1, Regulation 3-5 and MSC.1/Circ.1379
Eingeschränkte Stoffe	aus verschiedenen Gesetzge	bungen, so	weit nicht berei	ts oben abgedeckt
Flammschutz für Kunststoffe und Gummi	Dodecachloropentacyclo [5.3.0.02,6.03,9.04,8] decane (Mirex)		No intentionally added	Canadian Environmental Protection Act (CEPA) 1999,
<u>Lösungsmittel</u>	Hexachlorobutadiene, mit der Molekularformel C4Cl6 (HCBD)		content	Prohibition of Certain Toxic Substances
Weichmacher und andere	Hexachlorobenzene (HCB)			Regulations, 2012
Lösungsmittel, PCB- Herstellung	2-methoxyethanol, mit der Molekularformel C3H8O2 (2-ME)			
Flammschutz, Weichmacher	Polychlorinated Naphthalenes (PCN)			
In Schmierstoffen von Highspeed-Motoren	Benzenamine, N-phenyl-, Reaktionsprodukt mit Styrene und 2,4,4-Trimethylpentene (BNST)			
	Polychlorierte Naphthalene		0	Recycling von Schiffen
	Radioaktive Substanzen		0	MEPC.197(62), Inventar
Beschichtungen und Oberflächenbehandlungen	Perfluoroktansulfonsäure (PFOS)		0	gefährlicher Substanzen und EU SRR 1257



## Compiled from BOMcheck List of Restricted and Declarable Substances, ed. June 2016

	Belimo List of haza	rdoue eub	etancee:		
Fysamts for				rdaua -	uhatanaaa
Excerpts from regulations, ban and restriction regarding hazardous substances (Germany, EU, CH and some other countries)					
		some otner ( Igust 2016	countries)		
Product / Product part	Banned substance(s)	CAS-No.	limit	Excep	regulation
Froduct / Froduct part	Dainieu substance(s)	CAS-NO.	(% by	tion(s)	regulation
			weight)		
Electrical and electronic	c equipment	I.			1
Electrical and electronic	Lead and its compounds	7439-92-1	0.1		EU 2011/65/EC (RoHS)
equipment from July 1st 2006	Cadmium and its compounds	7440-43-9	0.01		CH ChemRRV App. 1.7, 1.9, 2.16(6)
	Mercury and its compounds	7439-97-6	0.1		
	chromium <sup>VI</sup> compounds (Cr <sup>VI</sup> )		0.1		
	Polybrominated biphenyls (PBBs) Polybrominated diphenylethers (PBDEs)		0.1		
from July 22nd 2019	Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	0.1		EU 2015/863 ("RoHS3")
•	Butyl benzyl phthalate (BBP)	85-68-7	0.1		
	Dibutyl phthalate (DBP)	84-74-2	<mark>0.1</mark>		
	Diisobutyl phthalate (DIBP)	84-69-5	<mark>0.1</mark>		
Batteries	1			<u> </u>	
Batteries and accumulators	Mercury, Cadmium, Lead and their	div. see	Cd 0.001		DE BattG
Coin cell batteries	compounds	above	Hg 0.0001		EU 2006/66/EG
			Pb <mark>0.004</mark>		CH ChemRRV Ann 2.15
Electrical components		1			
Capacitors and transformers	Halogenated aromatic substances		0.05/0.005		CH ChemRRV Ann 2.14
			mono/polyh alogeniert		DE ChemVerbotsV EU REACH Ann XVII
			alogerilert		US TSCA (15 USC2605)
	Polychlorinated Biphenyls (PCBs)	1336-36-3	0.005		00 100A (10 0002003)
Plastic parts					
Colored plastics (pigments)	Cadmium	7440-43-9	0.01		DE ChemVerbotsV EU REACH Ann XVII CH ChemRRV Ann 2.9
Flame retardants in circuit boards and plastic parts	Polybrominated biphenyls (PBBs) Polybrominated diphenylethers (PBDEs)		0.1		EU 2011/65/EC (RoHS) CH ChemRRV Ann 1.9
	Octabromdiphenylether (OBDE) Pentabrombromdiphenylether (PeBDE)	32536-52-0 32534-81-9			EU REACH Ann XVII DE ChemVerbotsV
Sealing compounds Plastic	short-chained chlorinated paraffins	02001010	1.0		CH ChemRRV Ann 1.2
and rubber (from August 1st, 2006)	(C <sub>10</sub> -C <sub>13</sub> )				
Metal alloys	Lead in steel alloys		max 0.35		EU 2011/65/EC (RoHS)
metal alloys	lead in aluminium alloys lead in copper alloys		max 0.4 max 4.0		20 20 11/00/20 (10/10/
Metallic coatings	1	1	<u> </u>	<u> </u>	
Metallic coatings	Cadmium	7440-43-9	n.a.		DE ChemVerbotsV
Metallic coatings	Chromium <sup>VI</sup> compounds (Cr <sup>VI</sup> )	7440-43-3	il.a.		EU REACH Ann XVII CH ChemRRV Ann 2.9 / 2.16(2)
	C. Torritani Goripounus (Gr.)		0.1		(_/
Zinc coating	Cadmium	7440-43-9	0.025		CH ChemRRV Ann 2.16(3)
Dackaging Material		1			
Packaging Material Packaging and wrapping	Sum of all heavy metals : [lead,	various see	0.01	<del>                                     </del>	DE VerpackV
Material and its compounds.	cadmium, chromium <sup>VI</sup> compounds (Cr <sup>VI</sup> ), mercury]	above	0.01		EU 94/62/EG CH Chem RRV Ann 2.16(4)
Painted or varnished ar	ticlos				
coatings and varnishes	Cadmium und Cd-compounds Lead and lead-compounds	various see above	0.01		CH ChemRRV Ann 2.8
	·				
Isolation material					

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Asbestos (1332-21-4)	a. Aktinolith b. Amosit c. Anthophyllit	77536-66-4 12172-73-5 77536-67-5	0	CH ChemRRV Ann 1.6 Ship recycling: SOLAS II-1, Regulation 3-5 and
	d. Chrysotil e. Krokydolith	12001-29-5 12001-28-4		MSC.1/Circ.1379
	f. Tremolit	77536-68-6		
Restricted substances t	irom various legislations, as	far as not c	overed abov	<u> </u> 'e
Flame retardant for plastics and rubber	Dodecachloropentacyclo [5.3.0.02,6.03,9.04,8] decane (Mirex)	2385-85-5	No intentionally added	Canadian Environmental Protection Act (CEPA) 1999,
Solvent	Hexachlorobutadiene, which has the molecular formula C4Cl6 (HCBD)	87-68-3	content	Prohibition of Certain Toxic Substances Regulations, 2012
Plasticiser and others	Hexachlorobenzene (HCB)	118-74-1		
Solvent, PCB manufacturing	2-methoxyethanol, which has the molecular formula C3H8O2 (2-ME)	109-86-4		
Flame retardant, plasticiser	Polychlorinated Naphthalenes (PCN)	various		
In lubricants for high speed motors	Benzenamine, N-phenyl-, Reaction Products with Styrene and 2,4,4- Trimethylpentene (BNST)			
	Polychlorinated naphthalenes (see also Canada)	various	0	Ship recycling MEPC.197(62), Inventory of
	Radioactive substances		0	Hazardous Materials
Coatings and surface treatments	Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0	and EU SRR 1257