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RESTRICTIONS IN THE USE OF HAZARDOUS SUBSTANCES IN EQUIPMENT AND CONSUMABLES

The Dutch Ministry of Defence (NL MoD) wants to control the risks of exposure to hazardous substances at the workplace. The NL MoD has described in Instruction HDBV 021 “risk management of hazardous substances at the workplace” how it implements this objective. Part of Instruction HDBV 021 is the “*List of Banned and Restricted Substances*” (LBRS), which restricts the use of hazardous substances in equipment and consumables.

The LBRS is part of the NL MOD procurement requirements for equipment and/or consumables and therefore the LBRS is included in the “Program of Requirements”.

The LBRS is a translation of European and the Dutch hazardous substances legislation and regulations, supplemented where necessary with NL MoD (policy based) requirements.

The Director of the Defence Materiel Organisation is responsible for updating and publishing of the LBRS.

Major changes

October 2020	Appendix 1: CMR policies updated Appendix 2: Final date of use of Halon in aircraft stated Appendix 3: Chromium(VI) policy clarified
March 2018	Update regarding the restrictions on refrigerants Annex 12 is added to the list
May 2017	Update regarding the restrictions on sensitising substances Update regarding the restrictions on cadmium connectors Update regarding the restrictions on anti-fouling systems
August 2015	Update on the restrictions regarding the use of nanomaterials;
May 2015	Update on the restrictions regarding the use of CMR-substances and Chromium(VI) especially;
April 2014	Update on the restriction regarding batteries.

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Explanation

Each substance in the LBRS is categorized in terms of restrictions as follows:

- 1A. A prohibition issued by the legislator for the use of the hazardous substance. The NL MoD cannot apply for an exemption / dispensation;
- 1B. A prohibition issued by the legislator for a specific application of a dangerous substance, without the possibility of obtaining an exemption / dispensation;
- 1C. Legally permitted use of the hazardous substance for specific stated applications / preconditions. The use of the substance is prohibited for the applications not listed;
- 1D. A prohibition is issued by the legislator for the use of the hazardous substance. The competent authority has granted an exemption from one or more legal articles of the legislation for a substance, mixture and/or article, for which the NL MoD has applied for;
- 2A. NL MoD does not allow the use of the hazardous substance, unless no technically equivalent alternative is available;
- 2B. NL MoD discourages the use of the substance;
- 3A. NL MoD registers the use of the hazardous substance in user and maintenance documentation and databases.

NB:

There is no restriction if the substance is no longer present in the object / (complex) component purchased by Defense.

NL MoD is very reluctant to apply for an exemption and / or (specific) exemption as referred to in category 1D. If the application is approved, the NL MoD remains fully responsible for taking adequate measures to protect people and the environment against the risks caused by these substances.

Use under restriction 1C is allowed, in case the European Commission has granted an authorisation for the use of the substance for the intended use.

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Annex 1: Operating chemicals:

Substance / product	CAS no.	Measure	Legislation	Restriction category
Benzene	71-43-2	Legislation permits use as a component of motor fuels	Directive 98/70/EG	1C
Benzene	71-43-2	Legislation prohibits use for all other purposes. Upper limit may not exceed: 0,1 % by weight	REACH Regulation, annex XVII, section 5 (Regulation 1907/2006/EC).	1A
Chloroparafines (C10 – C13)		Legislator prohibits use in metal working fluids.	REACH Regulation, Candidate list annex XIV (Regulation 1907/2006/EC)	2A
		MinDef does not allow the use in lubricants, Upper limit may not exceed: 0,1 % by weight	REACH Regulation, Candidate list annex XIV (Regulation 1907/2006/EC) Health & Safety Decree, chapter 4, article 4.4 and 4.17	2A
Organotin compounds: - Tributyltin - Trifenylnin - Tributyl(vinyl)tin - Azocyclotin - Fentinhydroxyde - Trifenylninacetate	688-73-3 36643-28-4 7486-35-3 41083-11-8 76-87-9 900-95-8	Legislation prohibits use in antifouling paint.	REACH Regulation, annex XVII, section 20 (Regulation 1907/2006/EC)	1A
Cybutryne	28159-98-0	MinDef does not allow use in anti-fouling paint	International Convention on the Control of Harmful Anti-Fouling System on Ships	2A
Mercury compounds		Legislation prohibits use in antifouling paint.	REACH Regulation, annex XVII, section 18 (Regulation 1907/2006/EC)	1A
Fenylmercuryacetate Fenylmercurypropionate Fenylmercury-2-ethylhexanonate Fenylmercuryoctonate Fenylmercury-neodecanoate	62-38-4 103-27-5	Legislation prohibits use in mixtures. Upper limit may not exceed: 0,01 % by weight.	REACH Regulation, annex XVII, section 62 (Regulation 1907/2006/EC)	1A
	13302-00-6 13864-38-5 26545-49-3	Legislation prohibits use in articles. This legal requirement is valid for articles containing the substance in a concentration $\geq 0,01$ % w/w, which are supplied after January 1 st 2017		

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Substance / product	CAS no.	Measure	Legislation	Restriction category
Cobaltchloride	7646-79-9	MinDef does not allow use as a medium for drying.	REACH Regulation, Candidate list annex XIV (Regulation 1907/2006/EC)	2A
Lead compounds: Among others Leadcarbonate Leadsulfate	598-63-0 7446-14-2	Legislation prohibits use in paints.	REACH Regulation, annex XVII, section 16 and 17 (Regulation 1907/2006/EC)	1A
Silica crystalline; Quarts Cristoballite Tridynite	14808-60-7 14464-46-1 15468-32-3	MinDef discourages use in paint, sealants and the like.	Health & Safety Decree, chapter 4, article 4.4 CLP Regulation, annex I, chapter 3.5 (Regulation 1272/2008/EC)	2B
Glycol ethers - 2-ethoxyethanole - 2-ethoxyethylacetate - 2-methoxyethanole - 2-methoxyethylacetate - 2-methoxypropanole	110-80-5 111-15-9 109-86-4 110-49-6 1589-47-5	MinDef discourages use as solvent	Health & Safety Decree, chapter 4, article 4.4	2B
- Nonylphenol - Nonylphenol/ethoxylates - 4-para0nonylphenole - Octylfenol - Para-tert-octylfenol - 2,4,6-tri-tert-butylfenol	25154-52-3 (84852-15-3) 9016-45-9 104-40-5 1806-26-4 140-66-9 732-26-3	MinDef discourages use in paint	REACH Regulation, annex XVII, section 46 (Regulation 1907/2006/EC)	2B
Chlorinated hydrocarbons, used as a solvent: Hexachloroethane Pentachloroethane 1,1,1,2 Tetrachloroethane 1,1,2,2 Tetrachloroethane 1,1,2 Trichloroethane Trichloroethane Trichloromethane 1,2-Dichloroethane 1,1-Dichloroethylene	67-72-1 76-01-7 630-20-6 79-34-5 79-00-5 79-01-6 67-66-3 107-06-2 75-35-4	MinDef discourages use	REACH Regulation, annex XVII, section 32 until 39 (Regulation 1907/2006/EC)	2B

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Substance / product	CAS no.	Measure	Legislation	Restriction category
Trichlorobenzene	120-82-1			
2-Naftylamine and it's salts Benzidine and it's salts 4-Nitrobifenyyl 4-Aminobifenyyl, xenyamine and it's salts	91-59-8 92-87-5 92-93-3 92-67-1	Legislation prohibits use.	REACH Regulation, annex XVII, section 12 untill 16 (Regulation 1907/2006/EC)	1A
Hydrochlorofluorocarbons (HCFC's), used as solvent.		Legislation prohibits use.	Regulation on substances that deplete the ozone layer (Regulation 1005/2009/EC)	1A
Dichloromethane	75-09-2	Legislation prohibits use as paint-stripper.	REACH Regulation, annex XVII, section 59, (Regulation 1907/2006/EC)	1A
Volatile Organic Substances (VOS)		<p>According to law, a paint system to be applied to military equipment may not contain quantities of the following volatile organic substances in excess of those specified hereafter (based on the ready to use product):</p> <ul style="list-style-type: none"> • Pretreatment: 850 g/l • Surface cleaning: 200 g/l • Putty, filling 250 g/l • Surfacer/sealer 540 g/l • General (metal)primers: 540 g/l • Wash primers: 780 g/l • Water-based paints: 140 g/l • High solid paints: 420 g/l • Finish coatings: 420 g/l • Special coatings for munitions and other military equipment: 840 g/l <p>Volatile organic substances* are hydrocarbons with a vapour pressure > 0,01 kPa (0,1 mbar).</p>	Directive 2004/42/EC	1B
Cadmium	7440-43-9	<p>Legislation prohibits use in coatings</p> <p>Upper limit may not exceed 0,01 % by weight</p>	REACH Regulation, annex XVII, section 23, (Regulation 1907/2006/EC)	1A
Substances, mentioned in annex XIV of the REACH Regulation		<p>Legislation prohibits use in substances and mixtures, unless:</p> <ul style="list-style-type: none"> - an authorisation has been granted; - decision by the European Commision is pending 	REACH Regulation, annex XIV (Regulation 1907/2006/EC)	1D

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Substance / product	CAS no.	Measure	Legislation	Restriction category
CM-substances type-1		<p>According to law, the use of carcinogenic and/or mutagenic substances classified by CLP Regulation as H 350 and/or H 340, is prohibited, in case a technically suitable alternative is available.</p> <p>Upper limit may not exceed; 0,1 % by weight.</p>	<p>REACH Regulation, annex XVII, section 28 and 29 (Regulation 1907/2006)</p> <p>Health & Safety Decree, chapter 4, article 4.17 (Regulation 1272/2008/EC)</p> <p>CLP Regulation, annex I chapter 3.5, 3.6 and 3.7 (Regulation 1272/2008/EC)</p>	2A
Substances classified as acute toxic and/or suspected CMR.		<p>MinDef discourages use of substances, classified by CLP Regulation as H 300, H301, H 310, H 311, H 330,, H 331 respectively H 341, H 351, H 361 and/or H 362.</p> <p>Upper limit may not exceed:</p> <ul style="list-style-type: none"> - H 300, H 301, H 310, H 311, H 330, H 331, H 351, H 361, H 362: 0,1 % by weight - H 341: 1 % by weight. 	<p>Health & Safety Decree, chapter 4, article 4.4</p> <p>CLP Regulation, annex I chapter 3.1, 3.5, 3.6 and 3.7 (Regulation 1272/2008/EC)</p>	2B
Sensitising substances		<p>MinDef discourages use of substances, classified by CLP Regulation as H 334 and/or H 317</p> <p>Upper limit may not exceed :</p> <ul style="list-style-type: none"> - H 334 (cat 1A) 0,1 % by weight - H 317 (cat 1A) 0,1 % by weight - H 334 (cat 1B) 1,0 % by weight - H 317 (cat 1B) 1,0 % by weight 	<p>Health & Safety Decree, chapter 4, article 4.4</p> <p>CLP Regulation, annex I chapter 3.1, 3.5, 3.6 and 3.7 (Regulation 1272/2008/EC)</p>	2B

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Annex 2: Fire-extinguishing agents

Substance / product	CAS no.	Measure	Legislation	Restriction category
Halon 1211 Halon 1301	353-59-3 75-63-8	Legislation exclusively permits use for existing critical applications.	Annex VI of Regulation 1005/2009/EC	1C
Halon 1211 Halon 1301	353-59-3 75-63-8	NL MoD does not allow the use in new military vehicles, ships and ground equipment	Annex VI of Regulation 1005/2009/EC	2A
Halon 1211 Halon 1301	353-59-3 75-63-8	MinDef discourages use in new aircraft. Legislation prohibits use in hand-held fire extinguishers after December 31th 2025 Legislation prohibits all uses in fixed fire-fighting systems after December 31th 2040	Annex VI of Regulation 1005/2009/EC	2B
Halon 1011 Halon 2402	74-97-5 124-73-2	Legislation prohibits use.	Regulation 1005/2009/EC	1A
Perfluorhydrocarbons: - Perfluormethane - Perfluorethane - Perfluorpropane - Perfluorbutane - Perfluorpentane - Perfluorhexane - Perfluorcyclobutane	75-73-0 76-16-4 76-19-7 355-25-9 678-26-2 355-42-0 115-25-3	Legislation prohibits use.	Regulation 1005/2009/EC	1A
Perfluorooctanoic acid (C8) and derivates	335-67-1	Legislation prohibits use	POP Regulation (Regulation 2019/1021/EC)	1A

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Annex 3: Corrosion protection / surface treatment

Substance / product	CAS no.	Measure	Legislation	Restriction category
Cadmium	7440-43-9	MinDef does not allow new military land vehicles, ships and equipment to be supplied with a corrosion resistant layer based on galvanised cadmium plating. Sufficient alternatives are available.	REACH Regulation, Candidate list annex XIV (Regulation 1907/2006/EC)	2A
Cadmium* en cadmium compounds: Cadmiumoxide Cadmiumsulfide	7440-43-9* 1306-19-0 1306-23-6	MinDef does not allow use of cadmium in new deliveries of electronic contacts unless: <ul style="list-style-type: none"> • there are no technically equivalent alternatives; • the OEM prohibits use of non-cadmium electronic contacts. 	ROHS Regulation (Regulation 2011/65/EC) Health & Safety Decree, chapter 4, article 4.17 CLP Regulation, annex I chapter 3.5 (Regulation 1272/2008/EC)	2B
Chromium(VI)compounds	18450-29-9	NL MoD does not allow use of a corrosion protection system containing Chromium(VI) on military equipment unless no technically equivalent alternative is available. This requirement is not valid for aircraft parts covered under airworthiness requirements. For these aircraft parts, the next requirement is valid. NB: a corrosion protection system is regarded to contain Chromium(VI) in case this concentration of the Chromium(VI) containing substance $\geq 0,1$ % by weight.	REACH Regulation, Candidate list annex XIV (Regulation 1907/2006/EC) Health & Safety Decree, chapter 4, article 4.17 CLP Regulation, annex I chapter 3.5 (Regulation 1272/2008/EC)	2A

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Substance / product	CAS no.	Measure	Legislation	Restriction category
Chromium(VI)compounds	18450-29-9	Legislation prohibits the use of chromium(VI) in a coating system to be applied on these parts of the aircraft, for which the Original Equipment Manufacturer (OEM) has certified the use of a non-chromium(VI) coating system.	MinDef Policy REACH Regulation, Candidate list annex XIV (Regulation 1907/2006/EC)	2A
		In case a chromium(VI)-containing coating system is to be applied on (parts of) an aircraft, the concentration of the chromium(VI)compounds in the coating system has to be as low as technically achievable.	Health & Safety Decree, chapter 4, article 4.17 CLP Regulation, annex I chapter 3.5 (Regulation 1272/2008/EC)	
Lead compounds: Among others		Legislation prohibits use in a coating system containing lead pigments	REACH Regulation, annex XVII, section 16 and 17 (Regulation 1907/2006/EC)	1B
Leadcarbonates	598-63-0 1319-46-6			
Leadsulphate	7446-14-2	Upper limit hat may not exceed: 0,1 % by weight		
Lead compounds: Leadchromate Leadchromate molybdate	7758-97-6 235-759-9	MinDef does not allow use in a corrosion protection system	REACH Regulation, Candidate list annex XIV (Regulation 1907/2006/EC) Health & Safety Decree, chapter 4, article 4.17 CLP Regulation, annex I chapter 3.5 (Regulation 1272/2008/EC)	2A
Silica crystalline; Quarts Cristoballite Tridynite	14808-60-7 14464-46-1 15468-32-3	MinDef discourages use in paints, sealants and the like.	Health & Safety Decree, chapter 4, article 4.17 CLP Regulation, annex I chapter 3.5 (Regulation 1272/2008/EC)	2B

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Annex 4: Electronics / lighting

Substance / product	CAS no.	Measure	Legislation	Restriction category
Lead compounds	7439-92-1	MinDef MOD discourages use	ROHS Regulation (Regulation 2011/65/EC)	2B
Flame retardants: PBB TRIS PBDE (PBDE) PBDO (PBBO)	59536-65-1 126-72-7	Legislation prohibits use. Upper limit that may not be exceeded: 0,1 % by weight	ROHS Regulation (Regulation 2011/65/EC)	2A
Cadmium* en cadmium compounds: Cadmiumoxide Cadmiumsulfide	7440-43-9* 1306-19-0 1306-23-6	MinDef does not allow use of cadmium in new deliveries of electronic contacts unless: <ul style="list-style-type: none"> • there are no technically equivalent alternatives; • the OEM of the aircraft prohibits use of non-cadmium electronic contacts. 	ROHS Regulation (Regulation 2011/65/EC) Health & Safety Decree, chapter 4, article 4.17 CLP Regulation, annex I chapter 3.5 (Regulation 1272/2008/EC)	2B
Lithium batteries		Transport legislation prohibits the transportation of lithium batteries, unless they successfully passed all required tests. Elucidation: The manufacturer must supply a statement, that the battery has successfully passed all legally required tests.	UN-manual of Tests, and Criteria, Part III, subsection 38.3	1B 3A
Batteries containing cadmium	7440-47-7	MinDef does not allow use of batteries containing cadmium, unless no technically equivalent alternatives are available or the aircraft OEM prohibits use of alternatives. Upper limit may not exceed: 0,002 % by weight.	Directive 2013/56/EC	2B
Batteries		From 01-01-2014, the supplier is required to report the presence of batteries in equipment	Directive 2013/56/EC, paragraph 11	3A
PVC		MinDef discourages the use of PVC in electric wiring, especially in closed spaces	MinDef policy	2B

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Annex 5: Textiles, articles of clothing, personal gear and shoes

Substance / product	CAS no.	Measure	Legislation	Restriction category
Azo-dyes: 4-Aminodiphenyl Benzidine 4-Chloro-o-toluidine 2-NMaphthylamine o-Aminoazotoluene 2-Amino-4- Nitrotoluene 2,4-Diaminocanisole 4,4-Diaminodiphenyl- methane 3,3-Dichlorobezidine 3,3- Dimethoxybenzidine 3,3-Dimethylbenzidine 3,3-Dimethyl—4,4- diaminiphenylmethane p-Chloroaniline p-Cresidine 4,4-Methylene-bis-2- chloroaniline 4,4-Oxydianiline 4,4-Thiodianiline 2,4-Toluenediamine o-Toluidine 2,4,5-Trimethylaniline o-Anididine p-Amino-azobenzene 2,4-Xylidine 2,6-Xylidine C39H23ClCrN7O12S. 2N C46H30CrN10O20S2. 3N	92-67-1 92-87-5 95-69-2 91-59-8 97-56-3 99-55-8 615-05-4 101-77-9 91-94-1 119-90-4 119-93-7 838-88-0 106-47-8 120-71-8 101-14-4 101-80-4 139-65-1 95-80-7 95-53-4 137-17-7 90-04-0 60-09-3 95-68-1 87-62-7 118685-33-9	Legislation prohibits the use. All Azo-dyes who might disintegrate into amines which are (suspected to be) carcinogenic are mentioned on this list. Upper limit may not exceeded: 30 mg/kg for each of the substances mentioned on this list	REACH Regulation, annex XVII, section 43 (Regulation 1907/2006/EC)	1A

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Substance / product	CAS no.	Measure	Legislation	Restriction category
Flame retardants: Tetrabromodiphenyl ether Pentabromodiphenyl ether Hexabromodiphenyl ether Heptabromodiphenyl ether Perfluorooctane sulfonic acid and derivatives Bis-(2,3-dibromopropyl) phosphate	5412-25-9 5455-55-1	The legislator prohibits use. The substances, mentioned on this list are persistent for the environment and are also suspected to harm the human immune system. Upper limit that may not be exceeded: 50 mg/kg.	POP Regulation (Regulation 757/2010/EC)	1B
Formaldehyde	50-00-0	Legislation prohibits use Upper limit that may not be exceeded: 100 ppm.	Consumer product safety decree formaldehyde d.d. 22-03-2001	1B
Cadmium	7440-43-9	MinDef does not allow use Upper limit that may not be exceeded: 100 ppm	REACH Regulation, annex XVII, section 23 (Regulation 1907/2006/EC)	2A
Leather containing Chromium(VI)	7440-47-3	Legislation prohibits use of leather articles contains chromium(VI), which comes in contact with the skin. Legislation prohibits use of articles containing chromium(VI), in case these leather parts are in contact with the skin. Upper limit may not exceed: 3 mg/kg (0,0003 % by weight) of the total dry weight of the leather.	REACH Regulation, annex XVII, section 47 (Regulation 1907/2006/EC) Health & Safety Decree, chapter 4, article 4.17 CLP Regulation, annex I chapter 3.5 (Regulation 1272/2008/EC)	2A
Mercury	7439-97-6	Legislation prohibits use. Upper limit that may not be exceeded: 1 ppm	REACH Regulation, annex XVII, section 18 (Regulation 1907/2006/EC)	1A
Lead	7439-92-1	MinDef does not allow use. Upper limit that may not be exceeded: 100 ppm.	Government policy on sustainable procurement	2A

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Substance / product	CAS no.	Measure	Legislation	Restriction category
Nickel	7440-02-0	MinDef does not allow use Upper limit that may not be exceeded: 0,5 ug/cm2/week.	REACH Regulation, annex XVII, section 27 (Regulation 1907/2006/EC)	1A
Organotincompounds: - Tributyltin - Trifenyln - Tributyl(vinyl)tin - Azocyclotin - Fentinhydroxyde - Trifenylnacetate	688-73-3 36643-28-4 7486-35-3 41083-11-8 76-87-9 900-95-8	Legislation prohibits use. Upper limit that may not be exceeded: 0,1 gram / kilogramme.	REACH Regulation, annex XVII, section 20 (Regulation 1907/2006/EC)	1A
Pesticides: HCH and all isomers Lindane Aldrin Chloroacne Dieldrin Endrin Heptachlor Heptachlor epoxide Isodrin Kelevane Chlordecone (keptone) Telodrin Strobane Toxaphene Hexachlorobenzene DDT DDE DDD Methoxychlor Perthane Quintozene	608-73-4 58-89-9 300-00-2 57-74-9 60-57-1 72-20-8 76-44-8 1024-57-3 465-73-6 4234-79-1 143-50-0 297-78-9 8001-50-1 8001-35-2 118-74-1 50-29-3 72-55-9 72-54-8 72-43-5 72-56-0 82-68-8	Legislation prohibits use. (Pesticides can be present in natural fibres, especially cotton) Upper limit that may not be exceeded (valid for every separate pesticide): 0,5 ppm.	POP Regulation (Regulation 757/2010/EC) Biocide Regulation (Regulation 528/2012/EC)	1B

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Substance / product	CAS no.	Measure	Legislation	Restriction category
Solvents: Pentachloroethane Tetrachloromethane 1,1,1,2- Tetrachloroethane 1,1,2,2- Tetrachloroethane	76-01-7 56-23-5 630-20-6 79-34-5	Legislation prohibits use Upper limit that may not be exceeded: 1000 mg / kg.	REACH Regulation, annex XVII, section 33 until 40 (Regulation 1907/2006/EC)	1A
Solvents: Benzene Phenol Toluene Xylene (alle isomeren.	71-43-2 108-95-2 108-88-3 1330-20-7	MinDef does not allow use during the production process of yarn and/or fabrics.	Government policy on sustainable procurement	2A
CMR-substances		The MOD does not allow the use of Carcinogenic-, Mutagenic- and/or Reprotoxic substances.	REACH Regulation, annex XVII, section 28 until 31 (Regulation 1907/2006/EC)	2A
Methylbromide Phosphine	74-83-9 7803-51-2	MinDef does not allow the use as a disinfectant in/on packaging and/or containers	Biocide Regulation (Regulation 528/2012/EC)	2A
Nano-materials		Supplier reports use to contract manager. The report must contain a risk assessment and the necessary risk management measurements The risk assessment must be based on the publication "Guidance on the protection of the health and safety of workers from the potential risks related to nanomaterials at work", Guidance for employers and health and safety practitioners, published by the European Commission, Directorate of Employment, Socials affairs and Inclusion, version June 2014. The document can be downloaded by internet.	European Commission policy	2B

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Substance / product	CAS no.	Measure	Legislation	Restriction category
Biocides		A foreign supplier may not use a biocide for treatment of (wooden) packaging and/or containers, unless the active substance: is admitted for the intended use	Biocide Regulation (Regulation 528/2012/EC)	2A
Biocides		Legislation prohibited use for treatment of clothing, shoes etc. unless the active substance is admitted for the intended use	Biocide Regulation (Regulation 528/2012/EC)	1C

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Annex 6: Refrigerants

Substance / product	CAS no.	Measure	Legislation	Restriction category
CFC's		Legislation prohibits use	Regulation 1005/2009/EC	1B
HCFC's		Legislation prohibits use in new refrigerators and deep-freezers. Legislation prohibits the refilling of equipment with recycled HCFC's.	Regulation 1005/2009/EC.	1B
Ammonia Propane Carbondioxide	7664-41-7 74-98-6 124-38-9	MinDef does not allow use of these refrigerants in land vehicles, ships, aircraft and/or equipment.	MinDef policy	2A
HFC's		MinDef does not allow use of refrigerants with a global warming potential (GWP) of more than 2500	MinDef policy Regulation 517/2014/EC	2A
HFC's		MinDef does not allow use of refrigerants with a global warming potential (GWP) of more than 150, when procuring new (military) equipment, unless no technical equivalent alternative is available This requirement is not valid for aircraft parts covered under airworthiness requirements. For these aircraft parts, the next requirement is valid.	MinDef policy Regulation 517/2014/EC	2A
HFC's		MinDef does not allow use of refrigerants with a global warming potential (GWP) of more than 150, when procuring new (military) aircraft parts, unless the Original Equipment Manufacturer (OEM) has not certified a refrigerant with a GWP of 150 or less.	MinDef policy Regulation 517/2014/EC	2A
HFC's		MinDef replaces refrigerants with a global warming potential of more than 150 during midlife update, unless this is technically not achievable.	MinDef policy Regulation 517/2014/EC	2B

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Annex 7: Radioactive sources

Substance / product	CAS no.	Measure	Legislation	Restriction category
Radioactive source		<p>MinDef does not allow use, unless the contract manager can prove that use of closed radioactive sources is a necessity.</p> <p>This requirement is not valid for closed radioactive sources, for whom the radiation levels do not exceed the levels mentioned in annex 1 of the Radiation Protection Degree (2001).</p>	Nuclear energy act	2B
Radioactive source		Supplier reports all radioactive sources to the contract manager. The report must contain the radiation levels (BeQ) of each source.	MinDef policy	3A

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Annex 8: Munitions

Substance / product	CAS no.	Measure	Legislation	Restriction category
Substances, mentioned in annex XIV of the REACH Regulation		Legislation prohibits use in substances and mixtures, unless an authorisation has been granted	REACH Regulation, annex XIV (Regulation 1907/2006/EC)	1D
Depleted uranium	7440	MinDef does not allow use	MinDef policy	2A
Tungsten-Nickel-Cobalt alloy		MinDef does not allow use unless no alternative alloy is available	Health & Safety Decree, chapter 4, article 4.17	2A
Carcinogenic, mutagenic and/or reprotoxic substances (CMR-substances).		MinDef discourages use	REACH Regulation, annex XVII, section 28, 29 and 30 (Regulation 1907/2006/EC) Health & Safety Decree, chapter 4, article 4.17 CLP Regulation, annex I chapter 3.5, 3.6 and 3.7 (Regulation 1272/2008/EC)	2B
All substances		For every part of munitions, the supplier must report: - name, CAS no and weight of every substance - if the substance contributes to emissions during - firing/ignition; - flight* - strike* * when applicable	CLP Regulation, annex I chapter 3.5, 3.6 and 3.7 (Regulation 1272/2008/EC)	3A

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Annex 9: Nano materials

Substance / product	CAS no.	Measure	Legislation	Restriction category
Nano-materials		Supplier reports use to contract manager. The report must contain a risk assessment and the necessary risk management measurements The risk assessment must be based on the publication "Guidance on the protection of the health and safety of workers from the potential risks related to nanomaterials at work", Guidance for employers and health and safety practitioners, published by the European Commission, Directorate of Employment, Socials affairs and Inclusion, version June 2014. The document can be downloaded by internet.	European Commission policy	2B

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Annex 10: Biocides and disinfectants

Substance / product	CAS no.	Measure	Legislation	Restriction category
Biocides		Legislation prohibits use, unless CTGB (NLD regulator) has admitted the active substance for the intended use	Biocide regulation (Regulation 528/2012/EC)	1C
Methylbromide Phosphine	74-83-9 7803-51-2	MinDef does not allow use as a disinfectant in/on packaging and/or containers	Biocide regulation (Regulation 528/2012/EC)	2A
Cybutryne	28159-98-0	MinDef discourages use in Anti-fouling paint	International Convention on the Control of Harmful Anti-Fouling Systems on Ships	2A
Biocides		A foreign supplier may not use a biocide for treatment of (wooden) packaging and/or containers, unless the active substance: - is mentioned in annex 1, 1A or 1B of this directive and is admitted for the intended use	Biocide regulation (Regulation 98/8/EC)	1C
Peracetic acid	79-21-0	Legislator has given permission to NL MOD to use substance for a specific use	Biocide regulation (Regulation 98/8/EC)	1D

Annex 11: Asbestos

Substance / product	CAS no.	Measure	Legislation	Restriction category
Asbestos n.o.s. Actinolite Asmosite Anthofyllite Chrysolite Tremolite Crocidolite	1332-21-4 77536-66-4 12172-73-5 77536-67-5 12001-29-5 77536-68-6 12001-28-4	Legislation prohibits use Not detectable for any asbestos mentioned in the list.	REACH Regulation, annex XVII, section 6 (Regulation 1907/2006/EC)	1A

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Annex 12: Reporting of substances of very high concern in (complex) objects

Reference: Article 33(1) of the REACH Regulation 1907/2006 regarding the Registration, Evaluation and Authorization of CHEMical substances.

The supplier must indicate for each individual article whether it contains one or more substances, which are stated on the candidate list Annex XIV of REACH or Annex XIV of REACH respectively in a concentration greater than 0.1% by weight per substance; the supplier must indicate whether the substance poses a risk to health and / or the environment during use, maintenance and / or recycling;

If a (military) product is composed of several (complex) components and consumables, the report may be compressed as follows:

- In case NL MoD carries out the maintenance: per (complex) compound, which during maintenance is no further disassembled;
- When maintenance is carried out by industry: per (complex) component offered for repair;
- In the case of consumables, reporting must be done on an individual item basis.
- The reporting must be in the form of a table, which contains the following information:
 - a. SAP number / Nato Stock Number;
 - b. chemical name of the substance;
 - c. Chemical Abstract Number of the substance (CAS number);
 - d. Use of the substance;
 - e. An indication of whether the substance poses a risk to humans and / or the environment during use, maintenance and / or disposal;

SAP-number / NSN	Chemical name of substance	Cas-nummer	Use of substance (in general terms)	Causes a risk during		
				Use*	Maintenance*	Disposal*

* Yes or No