

ANNEX – POSITIVE LISTS

Annex to the HYDROCHECK procedure for acceptance of Materials in
contact with Drinking Water

23 March 2010

Contents

1	Plastics, Elastomers and Natural and Synthetic Rubber Products	2
1.1	Introduction	2
1.2	Compounds that may be used in the manufacture of plastics, elastomers and natural and synthetic rubber products.....	5

1 Plastics, Elastomers and Natural and Synthetic Rubber Products

1.1 Introduction

1.1.1 This annex contains a list of monomers and other starting compounds, polymerisation compounds and additives, known as the “positive list”, that may be used in the production and processing of plastics and elastomers and natural and synthetic rubber products that (may) come into contact with drinking water.

1.1.2 The list is restrictive and excludes the use of other compounds. Compounds not included in the list can not be used unless they have been evaluated and approved according to the principles adopted by the Scientific Committee of the EFSA for the admittance of substances in contact with foodstuff (Directive 2002/72).

1.1.3 The term “plastics” shall mean the organic macromolecular compounds that are obtained by polymerisation, polycondensation, polyaddition or any other similar process from molecules with a lower molecular weight or by chemical alteration of natural macromolecules (monomers and other starting compounds).

1.1.4 The term “rubber products” shall mean the products based on elastomers to which one or more auxiliary compounds or additives have been added. The rubber products are obtained from mixtures of elastomers and auxiliary compounds by the formation of networks at a molecular level, usually at elevated temperatures and sometimes elevated pressures as well.

1.1.5 The term “elastomers” shall mean natural and synthetic macromolecular materials that rapidly and forcefully regain their shape at temperatures between 18°C en 29°C when a distorting force that has been applied to them to modify their shape severely is subsequently removed.

1.1.6 The molecules of elastomers are constructed of at least 500 structural units. These may be chlorinated and/or brominated.

1.1.7 Elastomers can be vulcanised to transform them into a condition in which they are virtually insoluble in boiling benzene, methyl ethyl ketone or an azeotropic mixture of ethanol and toluene, although the elastomer may swell up under the influence of these liquids.

1.1.8 Elastomers that have been vulcanised and that contain no other substances other than those needed for the vulcanisation do not break when stretched to three times the original dimensions at a temperature of between 18°C and 29°C, and they shrink to less than one and a half times the original length within one minute when stretched to twice the original length and held there for one minute.

1.1.9 Additives are substances that are used in plastics and rubber products to obtain a technical effect in the end product.

1.1.10 Polymerisation compounds are substances that are used to provide a suitable medium in which polymerisation occurs, such as emulsifiers, surfactants, buffering agents etc.

1.1.11 The list contains:

- the monomers plus other starting compounds, polymerisation compounds and additives defined above;
- natural and synthetic macromolecular compounds, where the monomers and other starting compounds required for the synthesis of these compounds are not included in the list;
- substances that are used for the modification of natural and synthetic macromolecular compounds;
- salts of acids that are not included in the lists as free acids. In such cases, the term “salts” means aluminium, ammonium, calcium, iron, magnesium, potassium, sodium and zinc salts, including double salts and acid salts.

1.1.12 The following equates with the substances in the list and is judged accordingly :

- mixtures of the authorised substances,

- natural and synthetic macromolecular materials, where the monomers and other starting compounds required for the synthesis of these materials have already been included in the list;
- aluminium, ammonium, calcium, iron, magnesium, potassium, sodium and zinc salts (including double salts and acid salts) of the authorised acids, phenols and alcohols.

1.1.13 Monomers and other starting compounds, polymerisation compounds and additives shall be of good technical quality and shall not be used in quantities greater than strictly necessary for the manufacture of the end product.

1.1.14 As long as the final product complies with the requirements imposed upon it, the end product may contain:

- impurities in the substances used,
- intermediates formed during polymerisation or polycondensation,
- decomposition products of the substances used.

1.1.15 The list contains the following information:

- column 1 (CAS no.): the Chemical Abstracts Service (CAS) registration number;
- column 2 (Name): the chemical name of the compound or group of compounds;
- column 3 (Restrictions): these may be:
 - the maximum tolerable concentration (MTC) in drinking water
 - the maximum tolerable residual content of the compound in the end product (QM)
 - other specifically stated restrictions or references

1.1.16 If an individual compound on the list is also covered by a generic term, the restrictions indicated for the individual compound apply.

1.1.17 If there is any inconsistency between the CAS number and the chemical name of a substance, the chemical name takes precedence. If there is an inconsistency between the CAS number in Einescs and the CAS Registry, the CAS number in the CAS Registry shall apply.

1.1.18 Where the Regulation states “not detectable”, this should be taken to mean that the specific migration of a substance should be less than 0.1 µg/l. If no suitable, validated analysis method is available for determining this, then an analytical method with appropriate performance characteristics at the detection limit may be used, pending the development of a validated method.

1.1.19 The following abbreviations are used in the list:

EP = end product
 QM = maximum tolerable residual level of the compound in the end product

The QM should also be taken to mean that the residual level of the compound in the end product must be determined using a validated analysis method for the given limiting value. If no such method is available, then an analytical method with appropriate performance characteristics at the detection limit may be used, pending the development of a validated method.

MTC = maximum tolerable concentration in drinking water

For conditions under which it can reasonably be expected that the product will be used, the specific migration shall not exceed the value given for the compound concerned. The MTC should also be taken to mean that the specific migration of the compound must be determined using a validated analysis method for the given limiting value. If no such method is available, then an analytical method with appropriate performance characteristics at the detection limit may be used, pending the development of a validated method.

MTC(T) = maximum tolerable concentration in drinking water, expressed as a total for the indicated substance(s) or part thereof

The MTC(T) should also be taken to mean that the specific migration of the compound must be determined using a validated analysis method for the given limiting value. If no such method is available, then an analytical method with appropriate performance characteristics at the detection limit may be used, pending the development of a validated method.

1.1.20 For the following groups of compounds, with the exception of the compounds mentioned individually in the list, the rule is that MTC(T) = 0.1 µg/l:

Secondary and tertiary aliphatic amines
Aromatic amines
Phenolic compounds (measured as phenol)
Nitrosamines
Peroxides
Polycyclic aromatic hydrocarbons

1.1.21 The rule for aluminium compounds is that the anticipated concentration of aluminium in drinking water, derived from the measured migration level, must not exceed 100 µg/l.

1.1.22 The TOC (total organic carbon) released by products coming into contact with drinking water shall not exceed the value of 3 mg/l drinking water.

1.1.23 No MTC is given for a compound when:

1. the MTC is greater than 3 mg/l. This limit is derived from the assumption that measuring the specific migration of compounds with a tolerable daily intake (TDI) of greater than 1 mg/kg bodyweight (60 mg per person) is not required (see Annex D).
Or;
2. the substance is an organic compound and the MTC is greater than 3 mg/l, which is the limiting value for the TOC parameter (see 1.1.22)

1.2 Compounds that may be used in the manufacture of plastics, elastomers and natural and synthetic rubber products

CAS no.	Name	MTC (in µg/l) and/or specifications
000067-64-1	acetone	
003179-56-4	acetylcyclohexanesulphonyl peroxide	0.1
015214-89-8	2-acrylamido-2-methylpropanesulphonic acid	2.5
000107-13-1	acrylonitrile	0.1
000079-10-7	acrylic acid	300
-	acrylic acid, esters with alcohols, monohydric, aliphatic saturated, C ₁ -C ₁₈	300
-	adipic acid, esters with alcohols, monohydric, aliphatic saturated, C ₆ -C ₁₂	
-	alcohols, monohydric, primary, unbranched, saturated C ₄ -C ₂₂	
-	alkadienes (C ₃ -C ₈)	
-	1-alkene (C ₂ -C ₈)	
-	alkyl (C ₈ -C ₁₈) benzene sulphonates, sodium salts	1500 ⁽¹⁾
-	alkyl (C ₈ -C ₁₈) naphthalene sulphonates, sodium salts	1500 ⁽¹⁾
-	alkyl (C ₈ -C ₁₈) sulphates, sodium salts	1500 ⁽¹⁾
-	alkyl (C ₈ -C ₁₈) sulphonates, sodium salts	1500 ⁽¹⁾
068037-49-0	alkyl (C ₈ -C ₂₂) sulphonic acid	300
-	<i>N</i> -alkyl (C ₁₄ -C ₁₈)- <i>N,N,N'</i> -triacetyl-1,3-diaminopropane	0.1
-	alkyl (C ₈ -C ₂₂) sulphuric acids, unbranched, primary, with an even number of carbon atoms	
021645-51-2	aluminium hydroxide	
001344-28-1	aluminium oxide	
-	aluminium silicate	
007446-70-0	aluminium trichloride	
002855-13-2	1-amino-3-aminomethyl-3,5,5-trimethylcyclohexane	300
013560-49-1	3-aminocrotonic acid, diester with thio-bis(2-hydroxyethyl) ether	
006642-31-5	6-amino-1,3-dimethyluracil	250
-	2-aminoethylcarbamic acid	0.1
-	6-aminoethylcarbamic acid	0.1
002432-99-7	11-aminoundecanoic acid	250
007664-41-7	ammonia	
001309-64-4	antimony trioxide	0.5 (as antimony)
000064-19-7	acetic acid	
000108-24-7	acetic anhydride	
025551-14-8	azo-bis(cyclohexanecarbonitrile)	
000078-67-1	2,2'-azo-bis(isobutyronitrile)	
007727-43-7	barium sulphate	50 (as barium)
001477-55-0	1,3-benzenedimethanamine	2.5
004422-95-1	1,3,5-benzenetricarboxylic acid trichloride	2.5
000065-85-0	benzoic acid	
000100-51-6	benzyl alcohol	
001761-71-3	bis(aminocyclohexyl)methane	2.5
015484-34-1	4,4'-bis(aminocyclohexyl)methane carbamate	0.1
032509-66-3	bis[3,3-bis(3- <i>tert</i> -butyl-4-hydroxyphenyl)butanoic acid] glycol ester	500
007128-64-5	2,5-bis(5- <i>tert</i> -butylbenzoxazol-2-yl) thiophene	30
015520-11-3	bis(4- <i>tert</i> -butylcyclohexyl) peroxydicarbonate	0.1
-	2,2-bis(3- <i>tert</i> -butyl-4-hydroxyphenyl)propane esterified with <i>p</i> -nonylphenylphosphite	0.1
023128-74-7	<i>N,N'</i> -bis[3-(3,5-di- <i>tert</i> -butyl-4-hydroxyphenyl)propionyl]-1,6-diaminohexane	
032687-78-8	<i>N,N'</i> -bis[3-(3,5-di- <i>tert</i> -butyl-4-hydroxyphenyl)propionyl]hydrazide	750
026741-53-7	bis(2,4-di- <i>tert</i> -butylphenyl) pentaerythritol diphosphite, containing no more than 1% tris(2-hydroxypropyl)amine	30
026511-61-5	3,3-bis(<i>tert</i> -butylperoxy)butanecarboxylic acid, <i>n</i> -butyl ester	0.1
002212-81-9	1,3-bis(<i>tert</i> -butylperoxyisopropyl)benzene	0.1
002781-00-2	1,4-bis(<i>tert</i> -butylperoxyisopropyl)benzene	0.1
004253-22-9	bis(<i>n</i> -butyl) tin sulphide	2 (as tin)
016111-62-9	bis(2-ethylhexyl)peroxydicarbonate	0.1
004066-02-8	bis(2-hydroxy-3-cyclohexyl-5-methylphenyl)methane	2.5
-	<i>N,N'</i> -bis(2-hydroxyethyl)alkyl (C ₈ -C ₁₈) amine	60
006200-40-4	bis(2-hydroxyethyl)-2-hydroxy-3-dodecoxypropylmethylammonium chloride	90
054208-63-8	bis(2-hydroxyphenyl)methane, bis(2,3-epoxypropyl)ether (BFDGE)	
000080-05-7	2,2-bis(4-hydroxyphenyl)propane	30
001675-54-3	2,2-bis(4-hydroxyphenyl)propane, bis(2,3-epoxypropyl) ether (BADGE)	450
000077-62-3	bis(2-hydroxy-3- <i>a</i> -methylcyclohexyl-5-methylphenyl)methane	300
-	bis(2-hydroxy-3-nonyl-5-methylphenyl)methane	0.1
-	bis(2-hydroxy-3- <i>tert</i> -octyl-5-methylphenyl)methane	0.1
-	bis(4-methoxyphenyl)amine	0.1

000085-60-9	bis(2-methyl-4-hydroxy-5- <i>tert</i> -butylphenyl) butane	15
000096-69-5	bis(2-methyl-4-hydroxy-5- <i>tert</i> -butylphenyl) sulphide	24
000991-84-4	2,4-bis(octylthio)-6-(4-hydroxy-3,5-di- <i>tert</i> -butylanilino)-1,3,5-triazine	1500
110553-27-0	2,4-bis(octylthiomethyl)-6-methylphenol	250
052829-07-9	bis(2,2,6,6-tetramethyl-4-piperidyl) sebacate	300
007637-07-2	boron trifluoride	50 (as boron)
000109-63-7	boron trifluoride etherate	50 (as boron)
010043-35-3	boric acid	50 (as boron)
000106-99-0	butadiene	0.1
000106-97-8	butane	
002425-79-8	1,4-butanediol-bis(2,3-epoxypropyl) ether	QM = 1 mg/kg
000505-65-7	1,4-butanediol formal	2.5
000106-98-9	1-butene	
000141-32-2	<i>n</i> -butyl acrylate	
002568-90-3	butylal	see dibutoxymethane
000095-31-8	<i>N</i> - <i>tert</i> -butyl-2-benzothiazolylsulphenamide	0.1
025013-16-5	2- and 3- <i>tert</i> -butyl-4-hydroxyanisol (BHA), as a mixture, containing no more than 0.05% monomethylhydroquinone ether	1500
000142-77-8	butyl oleate	
000107-71-1	<i>tert</i> -butylperoxyacetate	0.1
000614-45-9	<i>tert</i> -butylperoxybenzoate	0.1
026748-41-4	<i>tert</i> -butylperoxy-2,2-dimethyloctanoate	0.1
003006-82-4	<i>tert</i> -butylperoxy-2-ethylhexanoate	0.1
000927-07-1	<i>tert</i> -butylperoxypivalate	0.1
013122-18-4	<i>tert</i> -butylperoxy-3,5,5-trimethylhexanoate	0.1
000098-54-4	4- <i>tert</i> -butylphenol	2.5
000471-34-1	calcium carbonate	
010043-52-4	calcium chloride	
007789-75-5	calcium fluoride	
001305-62-0	calcium hydroxide	
-	calcium octanoate	
001305-78-8	calcium oxide	
001344-95-2	calcium silicate	
001592-23-0	calcium stearate	
000105-60-2	caprolactam	750
000502-44-3	caprolactone	2,5 ⁽²⁾
063438-80-2	(2-carbobutoxyethyl) tin- <i>S,S',S''</i> -tris(isooctylmercaptoacetate)	1500
-	carbonates	
009000-11-7	carboxymethyl cellulose	
007782-50-5	chlorine	
000126-99-8	2-chloro-1,3-butadiene	2.5
000079-38-9	chlorotrifluoroethylene	0,1
010025-73-7	chromium (III) chloride	5 (as chromium)
011118-57-3	chromium oxide	5 (as chromium)
000077-92-9	citric acid	
-	condensation products of ethylene oxide and/or propylene oxide with ethylenediamine, molecular weight > 12,000	
-	copolymers of maleic acid anhydride and vinyl methyl ether	
004180-12-5	copper (II) acetate	200 (as copper)
007787-70-4	copper (I) bromide	200 (as copper)
001184-64-1	copper (II) carbonate	200 (as copper)
007681-65-4	copper (I) iodide	200 (as copper)
003724-65-0	crotonic acid	
-	cumarone-indene resins	0.1
000095-33-0	<i>N</i> -cyclohexyl-2-benzothiazolylsulphenamide	0.1
001631-25-0	<i>N</i> -cyclohexylmaleic acid imide	0.1
000110-29-2	<i>n</i> -decyl- <i>n</i> -octyladipate	0.1
-	diacyl (C ₈ -C ₁₄) peroxides	0.1
-	dialkyl (C ₄ -C ₁₆) sulphosuccinates, sodium salts	
000124-09-4	1,6-diaminohexane	see hexamethylenediamine
003236-53-1	1,6-diamino-2,2,4-trimethylhexane	250
-	<i>N,N'</i> -diaryl- <i>p</i> -phenylenediamine	0.1
-	1,3: 2,4-dibenzaldehyde sorbitol	
000094-36-0	dibenzoyl peroxide	0.1
002568-90-3	dibutoxymethane	
004221-80-1	3,5-di- <i>tert</i> -butyl-4-hydroxybenzoic acid, 2,4-di- <i>tert</i> -butylphenyl ester	
065140-91-2	3,5-di- <i>tert</i> -butyl-4-hydroxybenzylphosphonic acid, monoethyl ester, calcium salt	300
000087-97-8	2,6-di- <i>tert</i> -butyl-4-methoxymethylphenol	0.1

000128-37-0	2,6-di- <i>tert</i> -butyl-4-methylphenol (BHT)	150
000110-05-4	di- <i>tert</i> -butyl peroxide	0.1
-	1,1-di- <i>tert</i> -butylperoxy-3,3,5-trimethylcyclohexane	0.1
-	2,6-di- <i>tert</i> -butyl- <i>p</i> -phenylphenol	0.1
000084-74-2	dibutylphthalate	3
000109-43-3	dibutyl sebacate	
063397-60-4	di(2-carbobutoxyethyl) tin - <i>S,S'</i> -bis(isooctylmercaptoacetate)	900
-	α,ω -dicarboxylic acids (C ₆ -C ₁₂), aliphatic, unbranched	
013372-18-4	dicetylphthalate	
026322-14-5	dicetylperoxydicarbonate	0.1
000133-14-2	2,4-dichlorodibenzoylperoxide	0.1
000080-07-9	4,4-dichlorodiphenylsulphone	2.5
000080-43-3	dicumyl peroxide	0.1
000461-58-5	dicyanodiamide	
001561-49-5	dicyclohexyl peroxydicarbonate	0.1
000077-73-6	dicyclopentadiene	2.5
000105-97-5	di- <i>n</i> -decyl adipate	0.1
000123-28-4	didodecylthiodipropionate	250 ⁽³⁾
000111-46-6	diethylene glycol	1500 ⁽⁴⁾
000111-40-0	diethylene triamine	250
000117-81-7	di(2-ethylhexyl) phthalate	15
000105-55-5	<i>N,N'</i> -diethyl thiourea	0.1
000123-31-9	1,4-dihydroxybenzene	15
000131-56-6	2,4-dihydroxybenzophenone	300 ⁽⁵⁾
000092-88-6	4,4'-dihydroxybiphenyl	300
000080-09-1	4,4-dihydroxydiphenylsulphone	2.5
026761-40-0	di-isodecylphthalate (DIDP)	See phthalic acid diesters with primary, saturated, branched C ₉ -C ₁₁ alcohols
-	di-isooctylphthalate	
-	di-isooctyl sebacate	0.1
028553-12-0	di-isononyl phthalate (DINP)	See phthalic acid diesters with primary, saturated, branched C ₈ -C ₁₀ alcohols
000105-64-6	di-isopropylperoxydicarbonate	0.1
000123-28-4	dilauryl thiodipropionate	250 ⁽³⁾
000109-87-5	dimethoxymethane	
003271-22-5	2,4-dimethoxy-6-(1-pyrenyl)-1,3,5-triazine	
002867-47-2	2-(dimethylamino)ethylmethacrylate	0.1
000793-24-8	<i>N</i> -1,3-dimethylbutyl- <i>N'</i> -phenyl- <i>p</i> -phenylenediamine	2.5
-	dimethyl dialkyl (C ₁₆ and/or C ₁₈) ammonium acetate	
000078-63-7	2,5-dimethyl-2,5-di(<i>tert</i> -butylperoxy)hexane	0.1
001068-27-5	2,5-dimethyl-2,5-di(<i>tert</i> -butylperoxy)-3-hexyne	0.1
053880-86-7	dimethyldiphenylthiuram disulphide	50
000576-26-1	2,6-dimethylphenol	2.5
001459-93-4	dimethylisophthalate	2.5
134701-20-5	2,4-dimethyl-6-(1-methylpentadecyl)phenol	250
000102-78-3	2,6-dimethylmorpholine-2-thiobenzothiazol	0.1
000126-30-7	2,2-dimethyl-1,3-propanediol	2.5
000120-61-6	dimethylterephthalate	
026636-01-1	dimethyltin- <i>S,S'</i> -bis(isooctylmercaptoacetate)	90 (as tin)
053220-22-7	dimyristyl peroxydicarbonate	0.1
016545-54-3	dimyristyl thiodipropionate	2.5
003135-18-0	di- <i>n</i> -octadecyl-3,5-di- <i>tert</i> -butyl-4-hydroxybenzylphosphonate	
002500-88-1	dioctadecyl disulphide	150
003806-34-6	dioctadecyl pentaerythritol diphosphite, containing no more than 1% tris(2-hydroxypropyl)amine	
000693-36-7	dioctadecyl thiodipropionate	250 ⁽³⁾
000117-84-0	di- <i>n</i> -octyl phthalate	110
000122-62-3	di- <i>n</i> -octyl sebacate	0.1
015571-58-1	di- <i>n</i> -octyltin - <i>S,S'</i> -bis(2-ethylhexylmercaptoacetate)	2 ⁽⁶⁾
026401-97-8	di- <i>n</i> -octyltin - <i>S,S'</i> -bis(isooctylmercaptoacetate)	2 ⁽⁶⁾
-	di- <i>n</i> -octyltin bis(maleic acid monoester, with primary, unbranched, saturated C ₁ -C ₁₈ alcohols)	2 ⁽⁶⁾
003648-18-8	di- <i>n</i> -octyltin dilaurate	2 ⁽⁶⁾
-	di- <i>n</i> -octyltin maleate polymer (the polymer must fit the formula [(C ₈ H ₁₇) ₂ SnC ₄ H ₂ O ₄] _n , where n = 2 to 4)	2 ⁽⁶⁾
000646-06-0	1,3-dioxolane	2.5

005518-18-3	<i>N,N'</i> -dipalmitoyl diaminoethane	
000120-54-7	di- <i>N</i> -pentamethylenethiuram tetrasulphide	50 ⁽⁷⁾
000971-15-3	di- <i>N</i> -pentamethylenethiuram hexasulphide	50 ⁽⁷⁾
000122-39-4	diphenylamine	
000074-31-7	diphenyl- <i>p</i> -phenylenediamine	0.1
000102-06-7	1,3-diphenylguanidine	2.5
000101-68-8	diphenylmethane-4,4'-di-isocyanate	QM = 1 mg/kg
000127-63-9	diphenylsulphone	150
000110-98-5	dipropylene glycol	
000110-30-5	<i>N,N'</i> -distearoyl diaminoethane	
003806-34-6	distearyl pentaerythritol diphosphite	See dioctadecylpentaerythritol diphosphite
000693-36-7	distearyl thiodipropionate	250 ⁽³⁾
000120-78-5	dithio-bis(2-benzothiazol)	150 ⁽⁸⁾
015017-02-4	<i>N,N'</i> -di- <i>o</i> -tolyl-phenylenediamine	0.1
001321-74-0	divinylbenzene	0.1 ⁽⁹⁾
027176-87-0	dodecylbenzenesulphonic acid	1500
052047-59-3	2-(<i>p</i> -dodecylphenyl) indole	3
000106-89-8	epichlorohydrin	0.1
000112-84-5	erucamide	
000074-85-1	ethene	
026221-27-2	ethene vinyl alcohol copolymer (EVOH)	
023676-09-7	<i>p</i> -ethoxyethylbenzoate	175
000075-04-7	ethylamine	
000110-31-6	<i>N,N'</i> -ethylene-bis(oleamide)	
005518-18-3	<i>N,N'</i> -ethylene-bis(palmitamide)	
000110-30-5	<i>N,N'</i> -ethylene-bis(stearamide)	
000107-15-3	ethylenediamine	600
000060-00-4	ethylenediaminetetraacetic acid	
000107-21-1	ethyleneglycol	1500 ⁽⁴⁾
000097-90-5	ethylene glycol dimethacrylate	0.1
000151-56-4	ethyleneimine	0,1
000075-21-8	ethylene oxide	QM = 1 mg/kg in EP
000149-57-5	2-ethylhexanoic acid	2.5
016219-75-3	5-ethylidene-bicyclo[2.2.1]-hept-2-ene	
-	fats and oils, from animal or vegetable food sources	
-	fats and oils, hydrogenated, from animal or vegetable food sources	
061790-38-3	fatty acids, hydrogenated	
-	fatty acids, saturated, C ₈ -C ₁₈ , ammonium, potassium and sodium salts	
-	fatty acids, unbranched, saturated and unsaturated, with an even number of carbon atoms, C ₈ -C ₂₂ , with a maximum content of 2% unsaponifiable matter	
-	fatty acids as described above, amides of	
-	fatty acids as described above, esterified with alcohols, monohydric, primary, unbranched, saturated, C ₄ -C ₁₈ , as well as oleyl alcohol	
-	fatty acids as described above, esterified with glycerol to produce mono-, di- and triglycerides	
-	fatty acids as described above, esterified with pentaerythritol	0.1
-	fatty acids as described above, as compounds with bis(2-hydroxyethyl)amine	1500
-	fatty acids as described above, as salts of aluminium, ammonium, calcium, lithium, magnesium, manganese, potassium, sodium and zinc	50 (as lithium)
061790-37-2	fatty acids, talc	
000050-00-0	formaldehyde	750
000064-18-6	formic acid	
000110-17-8	fumaric acid	
009000-70-8	gelatin	
-	glass fibres	
000056-81-5	glycerol	
000111-14-8	heptanoic acid	
000592-45-0	1,4-hexadiene	
000116-15-4	hexafluoropropene	0.1
035074-77-2	1,6-hexamethylene-bis[3-(3,5-di- <i>tert</i> -butyl-4-hydroxyphenyl)propionate]	300
023128-74-7	1,6-hexamethylene-bis[3-(3,5-di- <i>tert</i> -butyl-4-hydroxyphenyl)propionamide]	
000124-09-4	hexamethylenediamine	120
000100-97-0	hexamethylenetetramine	750 (expressed as formaldehyde)
007647-01-0	hydrochloric acid	
001333-74-0	hydrogen	

012304-65-3	hydrotalcite	
003896-11-5	2-(2-hydroxy-3- <i>tert</i> -butyl-5-methylphenyl)-5-chlorobenzotriazole	1500 ⁽¹⁰⁾
003864-99-1	2-(2-hydroxy-3,5-di- <i>tert</i> -butylphenyl)-5-chlorobenzotriazole	1500 ⁽¹⁰⁾
009004-62-0	hydroxyethyl cellulose	
065447-77-0	1-(2-hydroxyethyl)-4-hydroxy-2,2,6,6-tetramethylpiperidine- dimethyl succinate copolymer	1500
009032-42-2	hydroxyethylmethyl cellulose	
000131-57-7	2-hydroxy-4-methoxybenzophenone	300 ⁽⁴⁾
037353-59-6	hydroxymethyl cellulose	
002440-22-4	2-(2-hydroxy-5-methylphenyl)benzotriazole	1500 ⁽¹⁰⁾
001843-05-6	2-hydroxy-4- <i>n</i> -octyloxybenzophenone	300 ⁽⁴⁾
009004-64-2	hydroxypropyl cellulose	
009004-65-3	hydroxypropylmethyl cellulose	
000106-14-9	12-hydroxystearic acid	
006303-21-5	hypophosphoric acid	
007758-94-3	iron (II) chloride	
007705-08-0	iron (III) chloride	
001332-37-2	iron oxide	
000115-11-7	isobutene	see methylpropene
000121-91-5	isophthalic acid	250
000078-79-5	isoprene	see 2-methyl-1,3-butadiene
000097-65-4	itaconic acid	
000050-21-5	lactic acid	
000143-07-7	lauric acid	
000947-04-6	lauro lactam	250
-	lead chloride sulphate complex	1 (as lead)
001344-40-7	lead (II) phosphite, (dibasic) (Pb(PO ₃ H))	1 (as lead)
007428-48-0	lead (II) stearate (dibasic)	1 (as lead)
056189-09-4		
001072-35-1		
007446-14-2	lead (II) sulphate (Pb(SO ₄))	1 (as lead)
015739-80-7		
012036-93-0	lead (II) sulphate, dibasic (Pb ₃ O ₂ (SO ₄))	1 (as lead)
012036-76-9	lead (II) sulphate, monobasic (Pb ₂ O(SO ₄))	1 (as lead)
012202-17-4	lead (II) sulphate, tribasic (Pb ₄ O ₃ (SO ₄))	1 (as lead)
008002-43-5	lecithin	
000553-54-8	lithium benzoate	50 (as lithium)
011097-59-9	magnesium aluminium hydroxide carbonate hydrate	
013717-00-5	magnesium carbonate	
007786-30-3	magnesium chloride	
001309-48-4	magnesium oxide	
-	magnesium silicate	
000110-16-7	maleic acid	1500 ⁽¹¹⁾
000108-31-6	maleic acid anhydride	1500 ⁽¹¹⁾
000141-82-2	malonic acid	
000108-78-1	melamine	see 2,4,6-triamino-1,3,5-triazine
068891-01-0	melamine-formaldehyde condensation products	
000149-30-4	2-mercaptobenzothiazol	150 ⁽⁸⁾
000060-24-2	2-mercaptoethanol	2.5
059118-78-4	2-mercaptoethyl oleate	1500
000096-45-7	2-mercaptoimidazoline	2.5
000096-53-7	2-mercaptothiazoline	0.1
000079-41-4	methacrylic acid	300
-	methacrylic acid, esters with alcohols, monohydric, aliphatic saturated, C ₁ -C ₁₈	300
000067-56-1	methanol	
000096-33-3	methyl acrylate	
000109-87-5	methylal	see dimethoxymethane
000078-79-5	2-methyl-1,3-butadiene	0.1
009004-67-5	methylcellulose	
004088-22-6	methyl distearylamine	
000694-91-7	5-methylene-bicyclo[2.2.1]hept-2-ene	2.5
000119-47-1	2,2-methylene-bis(4-methyl-6- <i>tert</i> -butylphenol)	75
009004-65-3	methylhydroxypropylcellulose	
002682-20-4	2-methyl-4-isothiazoline-3-one	0.1
000080-62-6	methyl methacrylate	
000115-11-7	methylpropene	
000872-50-4	<i>N</i> -methylpyrrolidone	

000098-83-9	α -methylstyrene	see 2-phenylpropene
068442-12-6	Reaction products of oleic acid, 2-mercaptoethyl ester, with dichlorodimethyltin, sodiumsulphide and trichloromethyltin	9 (as tin)
000108-90-7	monochlorobenzene	10
054849-38-6	monomethyltin- <i>S,S',S''</i> -tris(isooctylmercaptoacetate)	10 (as tin)
026401-86-5	mono- <i>n</i> -octyltin <i>S,S',S''</i> -tris(isooctylmercaptoacetate)	60 (as tin)
-	mono- <i>n</i> -octyltin tris(maleic acid monoester), prepared with C ₁ -C ₁₈ , primary, unbranched, saturated alcohols	1 (as tin)
008002-53-7	montan wax	
000506-48-9	montanic acid	
-	montanic acid esters with ethyleneglycol and/or 1,3-butanediol and/or glycerol	
000102-77-2	morpholiniothio-2-benzothiazol	150 ⁽⁸⁾
-	myristyl polyethylene glycol (3-8) ether with oxyacetic acid	
-	naphthalene sulphonic acid-formaldehyde condensation product, sodium salt	0.1
027253-31-2	neodecanoic acid, cobalt salt	2.5 (as cobalt)
-	Novolak Glycidyl Ether (NOGE)	2.5
002082-79-3	<i>n</i> -octadecyl- β -(4-hydroxy-3,5-di- <i>tert</i> -butylphenyl)propionate	300
000111-66-0	1-octene	750
000143-28-2	oleyl alcohol	
000144-62-7	oxalic acid	
070331-94-1	2,2'-oxamido-bis[ethyl-3-(3,5-di- <i>tert</i> -butyl-4-hydroxyphenyl)propionate]	
007782-44-7	oxygen	
-	paraffin oil (white mineral oil), obtained from fractionating crude oil	
-	paraffin, microcrystalline	
-	paraffin, solid, including synthetic	
000115-77-5	pentaerythritol	
000109-66-0	pentane	
007601-89-0	perchloric acid, sodium salt monohydrate	2.5
000108-45-2	1,3-phenylenediamine	0.1
000948-65-2	2-phenylindole	750
-	<i>N</i> -phenyl- <i>N'</i> -isohexyl- <i>p</i> -phenylenediamine	0.1
000098-83-9	2-phenylpropene	2.5
007774-80-3	phenyl- <i>o</i> -tolyl-phenylenediamine	0.1
007664-38-2	phosphoric acid	
026523-78-4	phosphoric acid, tris(nonyl- and/or dinonylphenyl) ester	750
000088-99-3	<i>o</i> -phthalic acid	
068515-48-0	phthalic acid, diesters with primary, saturated, branched C ₈ -C ₁₀ alcohols	45 ⁽¹²⁾
068515-49-1	phthalic acid, diesters with primary, saturated, branched C ₉ -C ₁₁ alcohols	45 ⁽¹²⁾
000085-44-9	phthalic anhydride	
068132-00-3	polycyclopentadiene resin, hydrogenated	250
009016-00-6	polydimethyl siloxane	
063148-62-9	-	
-	polyester from 1-(2-hydroxyethyl)-4-hydroxy-2,2,6,6-tetramethylpiperidine and the dimethyl ester of ethane-1,2-dicarboxylic acid, with a molecular weight greater than 1500 and smaller than 5000	
-	polyesters with an average molecular weight > 1000, obtained by a reaction with adipic acid, azelaic acid, succinic acid, decanedicarboxylic acid, phthalic acid of sebacic acid with 1,3-butanediol, 2,2-dimethyl-1,3-propanediol, ethanediol, glycerol, 1,6-hexanediol or 1,2-propanediol, with the reaction being (or not being) terminated using fatty acids or alcohols, as described in this list	
025322-68-3	polyethyleneglycol	
-	polyethyleneglycol, esters with aliphatic mono-carboxylic acids (C ₆ -C ₂₂) and their ammonium and sodium sulphates	
-	polyethylene glycol (4-14) ether of octyl- and/or nonylphenol	250
-	polyethylene glycol (4-14) ethers of monohydric, primary, unbranched, saturated C ₁₂ -C ₁₈ alcohols	250
-	polyethylene glycol (8-14), esterified with lauric acid, oleic acid, ricinoleic and/or stearic acid	
-	polyethylene glycol sorbitan monolaurate	
-	polyethylene glycol sorbitan monooleate	
-	polyethylene, oxidised, molecular weight \geq 5000, oxygen content \geq 1.2%, epoxy groups: not detectable	QM = 0.5% in EP
05322-68-3	polyethylene oxide (PEO)	see polyethylene glycol (PEG)
009002-88-4	polyethylene wax	
025101-03-5	polypropylene adipate	
025322-69-4	polypropylene glycol	
-	polypropylene glycol, esterified with lauric acid, oleic acid, ricinoleic and/or stearic acid	
071878-19-8	poly[6-(1,1,3,3-tetramethylbutylamino)-1,3,5-triazine-2,4-diyl]-[4-(2,2,6,6-	30

192268-64-7	tetramethylpiperidyl imino]hexamethylene- [4-(2,2,6,6-tetramethylpiperidyl)imino]] poly[[6-[N-(2,2,6,6-tetramethyl-4-piperidiny)-n-butylamino]- 1,3,5-triazine-2,4-diy]- [(2,2,6,6-tetramethyl-4-piperidiny)-imino]- 1,6-hexanediyl[(2,2,6,6-tetramethyl- 4-piperidiny)imino]]- a-[N,N,N',N'-tetrabutyl-N''-(2,2,6,6-tetramethyl-4-piperidiny)-N'''- [6-(2,2,6,6-tetramethyl-4-piperidiny)amino]hexyl][1,3,5-triazine-2,4,6-triamine]- ? -N,N,N',N'-tetrabutyl-1,3,5-triazine-2,4-diamine]	250
009002-89-5	polyvinyl alcohol (viscosity of a 4% solution in water at 20°C at least 20 mPa.s (20 cP))	
-	poly-N-vinyl-N-methylformamide, molecular weight > 40,000	
009003-39-8	polyvinyl pyrrolidone (viscosity of a 5% solution in water at 20°C at least 34 cP)	
007758-02-3	potassium bromide	
000584-08-7	potassium carbonate	
001310-58-3	potassium hydroxide	
007681-11-0	potassium iodide	
012136-45-7	potassium oxide	
007727-21-1	potassium peroxodisulphate	0.1
001312-76-1	potassium silicate	
000074-98-6	propane	
000057-55-6	1,2-propanediol	
000071-23-8	1-propanol	
000067-63-0	2-propanol	
000115-07-1	propene	
000079-09-4	propionic acid	
019019-51-3	propionic acid, cobalt salt	2.5 (as cobalt)
000075-56-9	propylene oxide	QM = 1 mg/kg in EP
000094-13-3	propyl-4-hydroxybenzoate	
002466-09-3	pyrophosphoric acid	
-	rapeseed oil	
119345-01-6	reaction product of di- <i>tert</i> -butylphosphonite with biphenyl, obtained by condensation of 2,4-di- <i>tert</i> -butylphenol with Friedel Craft reaction product of phosphorus trichloride and biphenyl	900
068442-68-2	reaction product of styrene and diphenylamine	2.5
-	reaction products of styrene and/or methylstyrene and/or alkenes (C ₃ -C ₁₂) with phenol and/or methylphenol	2.5
000141-22-0	ricinoleic acid	
008001-79-4	ricinus oil (= castor oil)	
008050-09-7	rosin	
008050-26-8	rosin, ester with pentaerythritol	
-	silanols, with at least one hydroxyl group and one or more methyl, vinyl or phenyl groups on every silicon atom	0.1
-	silicates of aluminium, calcium, magnesium, sodium and potassium, including diatomaceous earth/fossil meal, glass fibres, kaolin and mica	
001343-98-2	silicic acid	
000409-21-2	silicon carbide	
007631-86-9	silicon dioxide	
010026-04-7	silicon tetrachloride	
000497-19-8	sodium carbonate	
007647-14-5	sodium chloride	
007681-49-4	sodium fluoride	
001310-73-2	sodium hydroxide	
001313-59-3	sodium oxide	
-	sodium silicate	
007757-83-7	sodium sulphite	
013573-18-7	sodium tripolyphosphate	
001333-86-4	soot (carbon black, furnace black, channel black) and other carbon products, such as graphite and coke powder	
000110-44-1	sorbic acid	
001338-39-2	sorbitan monolaurate	
026266-57-9	sorbitan monopalmitate	
000050-70-4	sorbitol	
-	soybean oil, modified with sulphur or not (faktis)	
008013-07-8	soybean oil, epoxidised, with oxiran content < 8%	300
000057-11-4	stearic acid	
058446-52-9	stearoyl benzoyl methane	
000100-42-5	styrene	
-	styrene (2 mol) condensed with 1 mol of a mixture of phenol and <i>o</i> -, <i>m</i> - en <i>p</i> -cresols, Brookfield viscosity of the end product at 25°C between 1400 and 1700 cP	0.1
007704-34-9	sulphur	
007664-93-9	sulphuric acid	
014807-96-6	talc	

061790-12-3	tall oil fatty acids	
000087-69-4	tartaric acid	
000100-21-0	terephthalic acid	375
001634-02-2	tetrabutylthiuram disulphide	50 ⁽¹³⁾
000097-77-8	tetraethylthiuram disulphide	50 ⁽¹³⁾
000116-14-3	tetrafluoroethene	2,5
000109-99-9	tetrahydrofuran	30
-	tetrakis(2,4-di- <i>tert</i> -butylphenyl)-2,4'-biphenylene diphosponite	900
038613-77-3	tetrakis(2,4-di- <i>tert</i> -butylphenyl)-4,4'-biphenylene diphosponite	900
006683-19-8	tetrakis[methylene(3,5-di- <i>tert</i> -butyl-4-hydroxyphenyl)propionate]methane	-
000137-26-8	tetramethylthiuram disulphide	50 ⁽¹³⁾
000097-74-5	tetramethylthiuram monosulphide	50 ⁽¹³⁾
041484-35-9	thiodiethanol-bis[3-(3,5-di- <i>tert</i> -butyl-4-hydroxyphenyl)propionate]	120
000111-17-1	thiodipropionic acid	
001912-84-1	tin (II) oleate	2.5 ⁽¹⁴⁾
011130-18-0	titanium chloride	
013463-67-7	titanium dioxide	
051745-87-0	titanium oxide	
000093-69-6	<i>o</i> -tolyl biguanide	0.1
-	trialkyl (C ₅ -C ₁₅) acetic acid, 2,3-epoxypropyl ester	QM = 1 mg/kg in EP
000101-37-1	triallyl cyanurate	0.1
001025-15-6	triallyl isocyanurate	0.1
000108-78-1	2,4,6-triamino-1,3,5-triazine	1500
000102-82-9	tri- <i>n</i> -butylamine	0.1
000813-94-5	tricalcium dicitrate	
000121-44-8	triethylamine	0.1
000112-27-6	triethylene glycol	
036443-68-2	triethylene glycol bis[3-(3- <i>tert</i> -butyl-4-hydroxy-5-methylphenyl)propionate]	450
000528-44-9	trimellitic acid	250
001709-70-2	1,3,5-trimethyl-2,4,6-tris(3,5-di- <i>tert</i> -butyl-4-hydroxybenzyl)benzene	
003290-92-4	1,1,1-trimethylolpropane trimethacrylate	2.5
000110-88-3	trioxane	2.5
031570-04-4	tris(2,4-di- <i>tert</i> -butylphenyl)phosphite	
040601-76-1	1,3,5-tris(4- <i>tert</i> -butyl-3-hydroxy-2,6-dimethylbenzyl)-1,3,5-triazine-2,4,6-trione	300
027676-62-6	1,3,5-tris(3,5-di- <i>tert</i> -butyl-4-hydroxybenzyl)-1,3,5-triazine-2,4,6-trione	900
000077-99-6	1,1,1-tris(hydroxymethyl)propane	300
000122-20-3	tris(2-hydroxypropyl)amine	250
001843-03-4	1,1,3-tris(2-methyl-4-hydroxy-5- <i>tert</i> -butylphenyl)butane	250
026523-78-4	tris(mono- and dinonylphenyl)phosphite, with a maximum content of 1% tris(2-hydroxypropyl)amine	1500
-	urea-formaldehyde condensation products	
-	softeners refined from crude oil	0.1
007718-98-1	vanadium chloride	2.5 (as vanadium)
011099-11-9	vanadium oxide	2.5 (as vanadium)
008009-03-8	vaseline, pharmaceutical quality	
000108-05-4	vinyl acetate	600
000075-01-4	vinyl chloride	0.5
-	vinyl esters of monohydric, saturated, aliphatic carboxylic acids, C ₂ -C ₂₀	2.5 (in total)
000075-35-4	vinylidene chloride	0.1
000075-38-7	vinylidene fluoride	250
003048-64-4	vinylnorbornene	2,5
000088-12-0	vinyl pyrrolidone	
002768-02-7	vinyl trimethoxysilane	QM = 5 mg/kg in EP
013983-17-0	wollastonite	
011138-66-2	xanthan gum	
007646-85-7	zinc chloride	
014726-36-4	zinc dibenzylidithiocarbamate	50 ⁽¹⁵⁾
000136-23-2	zinc dibutylidithiocarbamate	50 ⁽¹⁵⁾
014324-55-1	zinc diethylidithiocarbamate	50 ⁽¹⁵⁾
000137-30-4	zinc dimethylidithiocarbamate	50 ⁽¹⁵⁾
000136-53-8	zinc 2-ethylhexanoate	
014634-93-6	zinc ethylphenylidithiocarbamate	50 ⁽¹⁵⁾
000155-04-4	zinc 2-mercaptobenzothiazol	150 ⁽⁸⁾
000557-09-5	zinc octanoate	
001314-13-2	zinc oxide	
004991-47-3	zinc palmitate	
000557-05-1	zinc stearate	
001314-98-3	zinc sulphide	

-
- ¹ In this specific case, the MAC(T) means that the sum of the migration of alkyl (C₈-C₁₈) benzene sulphonates, alkyl (C₈-C₁₈) naphthalene sulphonates, alkyl (C₈-C₁₈) sulphates and alkyl (C₈-C₁₈) sulphonates must not exceed the limit of 1500 µg/l.
- ² In this case, the MAC(T) means that the sum of caprolactone and 6-hydroxyhexanoic acid must not exceed the limit of 2,5 µg/l.
- ³ In this specific case, the MAC(T) means that the sum of the migration of didodecyl thiodipropionate, dilauryl thiodipropionate, dioctadecyl thiodipropionate and distearyl thiodipropionate must not exceed the limit of 250 µg/l.
- ⁴ In this specific case, the MAC(T) means that the sum of the migration of diethylene glycol and ethylene glycol must not exceed the limit of 1500 µg/l.
- ⁵ In this specific case, the MAC(T) means that the sum of the migration of 2,4-dihydroxybenzophenone, 2-hydroxy-4-methoxybenzophenone and 2-hydroxy-4-*n*-octyloxybenzophenone must not exceed the limit of 300 µg/l.
- ⁶ In this specific case, the MAC(T) means that the sum of the migration of di-*n*-octyl tin -*S,S'*-bis(2-ethylhexyl-mercaptoacetate), di-*n*-octyl tin-*S,S'*-bis(isooctylmercaptoacetate), di-*n*-octyl tin maleate polymer (the polymer must match the formula [(C₈H₁₇)₂SnC₄H₂O₄]_n, where n = 2 to 4), di-*n*-octyl tin dilaurate and di-*n*-octyl tin bis(maleic acid monoester with primary, unbranched, saturated C₁-C₁₈ alcohols) must not exceed the limit of 2µg/l (measured as tin).
- ⁷ In this specific case, the MAC(T) means that the sum of the migration of di-*N*-pentamethylenethiuram tetrasulphide and di-*N*-pentamethylenethiuram hexasulphide must not exceed the limit of 50 µg/l.
- ⁸ In this specific case, the MAC(T) means that the sum of the migration of dithio-bis(2-benzothiazol), 2-mercapto-benzothiazol, morpholinothio-2-benzothiazol and zinc 2-mercaptobenzothiazol must not exceed the limit of 150 µg/l.
- ⁹ The MAC of 0.1 µg/l here applies to the total for divinyl benzene and ethyl vinyl benzene. Divinyl benzene may contain a maximum of 40% ethyl vinyl benzene.
- ¹⁰ In this specific case, the MAC(T) means that the sum of the migration of 2-(2-hydroxy-3-*tert*-butyl-5-methylphenyl)-5-chlorobenzotriazole, 2-(2-hydroxy-5-methylphenyl)benzotriazole and 2-(2-hydroxy-3,5-di-*tert*-butylphenyl)-5-chlorobenzotriazole must not exceed the limit of 1500 µg/l.
- ¹¹ In this specific case, the MAC(T) means that the sum of the migration of maleic acid and maleic acid anhydride must not exceed the limit of 1500 µg/l.
- ¹² In this specific case, the MAC(T) means that the sum of the migration of phthalic acid diesters with primary, saturated, branched C₈-C₁₀ alcohols and phthalic acid diesters with primary, saturated, branched C₉-C₁₁ alcohols must not exceed the limit of 1500 µg/l.
- ¹³ In this specific case, the MAC(T) means that the sum of the migration of tetrabutylthiuram disulphide, tetraethylthiuram disulphide, tetramethylthiuram disulphide and tetramethylthiuram monosulphide must not exceed the limit of 50 µg/l.
- ¹⁴ Tin (II) oleate may only be used in silicone rubber.
- ¹⁵ In this specific case, the MAC(T) means that the sum of the migration of zinc dibenzylthiocarbamate, zinc dibutylthiocarbamate, zinc diethylthiocarbamate, zinc dimethylthiocarbamate and zinc ethylphenylthiocarbamate must not exceed the limit of 50 µg/l.