

A Simplified Version of REACH Annex XVII – REACH Restricted Substance List – Updated Jan 2015

Full REACH restriction conditions available from http://www.chemsafetypro.com/Topics/EU/REACH_annex_xvii_REACH_restricted_substance_list.html

Entry 33, 42, 44, 62 are deleted due the update of REACH annex XVII.

Entry No. and Restricted Substance Name	REACH Restriction Conditions (In case of discrepancy, please follow full restriction conditions.)
Entry 1 Polychlorinated terphenyls (PCTs)	<ul style="list-style-type: none"> • Banned as a substance; • <50 mg/kg (0,005 % by weight) in a mixture.
Entry 2. Chloroethene (vinyl chloride) CAS No 75-01-4	<ul style="list-style-type: none"> • Banned use: used as a propellant in aerosols for any use.
Entry 3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC	<ul style="list-style-type: none"> • Banned in ornamental articles, tricks and jokes or articles for gaming purpose; • Banned in decorative oil lamps for supply to the general public; • Additional labelling requirements for lamp oils, grill lighter fluids, grill lighters, etc.
Entry 4 Tris (2,3 dibromopropyl) phosphate CAS No 126-72-7	<ul style="list-style-type: none"> • Banned in any textile article intended to come into contact with the skin;
Entry 5 Benzene CAS No 71-43-2	<ul style="list-style-type: none"> • Toy or toy parts: <=5 mg/kg (0, 0005 %w/w) in toy or part of toy. • Shall not be placed on the market, or used, as substance or in mixtures in concentrations greater than 0,1 % w/w(example, detergent). • Exception: motor oil, industrial use.
Entry 6 Asbestos fibres	<ul style="list-style-type: none"> • Banned as a substance, in mixture or article;
Entry 7 Tris(aziridinyl)phosphinoxide CAS No 545-55-1	<ul style="list-style-type: none"> • Banned in textile article intended to come into contact with the skin;

<p>Entry 8 Polybromobiphenyls; Polybrominatedbiphenyls (PBB) CAS No 59536-65-1</p>	<ul style="list-style-type: none"> • Banned in textile article intended to come into contact with the skin.
<p>Entry 9 Soap bark powder, Benzidine and/or its derivatives (CAS No 92-87-5), o-Nitrobenzaldehyde , etc.</p>	<ul style="list-style-type: none"> • Banned in Jokes and hoaxes; • Exception: stink bombs.
<p>Entry 10 Ammonium sulphide, Ammonium hydrogen sulphide and Ammonium polysulphide</p>	<ul style="list-style-type: none"> • Banned in Jokes and hoaxes; • Exception: stink bombs.
<p>Entry 11 Volatile esters of bromoacetic acids</p>	<ul style="list-style-type: none"> • Banned in Jokes and hoaxes; • Exception: stink bombs.
<p>Entry 12. 2-Naphthylamine CAS No 91-59-8 and its salts Entry 13. Benzidine CAS No 92-87-5 and its salts Entry 14. 4-Nitrobiphenyl CAS No 92-93-3 Entry 15. 4-Aminobiphenyl xenylamine CAS No 92-67-1 Einecs EC No 202-177-1 and its salts</p>	<ul style="list-style-type: none"> • Shall not be placed on the market, or used, as <ul style="list-style-type: none"> ○ substances or in mixtures in concentrations ○ greater than 0,1 % w/w.
<p>Entry 16. Lead carbonates: (a) Neutral anhydrous carbonate (PbCO₃) CAS No 598-63-0 (b) Trilead-bis(carbonate)-dihydroxide CAS No 1319-46-6</p>	<ul style="list-style-type: none"> • Banned in paints; • Exception: Member states may permit the use on their territory of the substance or mixture for the restoration and maintenance of works of art and historic buildings and their interiors.

<p>Entry 17. Lead sulphates: (a) PbSO₄ , CAS No 7446-14-2 (b) Pb_x SO₄ , CAS No 15739-80-7</p>	
<p>Entry 18. Mercury compounds</p>	<ul style="list-style-type: none"> • Banned use: preventing the fouling by micro-organisms, plants or animals , preservation of wood, in the impregnation of heavy-duty industrial textiles and yarn and treatment of industrial waters,
<p>Entry 18a Mercury , CAS No 7439-97-6</p>	<ul style="list-style-type: none"> • Banned in fever thermometers and in other measuring devices;
<p>Entry 19. Arsenic compounds</p>	<ul style="list-style-type: none"> • Banned use: preventing the fouling by micro-organisms, plants or animals ; preservation of wood; and treatment of industrial waters, • Exception: wood treatment. • Additional labelling and packing requirement on treated wood.
<p>Entry 20 Organostannic compounds</p>	<ul style="list-style-type: none"> • Banned use: as biocide in free association paint, as biocide to prevent the fouling by micro-organisms, plants or animals of any equipment or craft in contact with water, in the treatment of industrial water. • Tri-substituted organostannic compounds: <0.1%w/w in all articles; • Dibutyltin (DBT) compounds: <0.1%w/w in all mixtures and articles supplied to the public; • DBT exception: materials and articles regulated under Regulation (EC) No 1935/2004. • Diocetyl tin (DOT) compound: <0.1%w/w in articles supplied to the public(for example, textile, nappies);
<p>Entry 21 Di-μ-oxo-di-n-butylstanniohydroxyborane/ Dibutyltin hydrogen borate(DBB) , CAS No 75113-37-0</p>	<ul style="list-style-type: none"> • Banned use: as a substance, or in mixtures in a concentration equal to, or greater than 0,1 % by weight;
<p>Entry 22.</p>	<ul style="list-style-type: none"> • Banned use: as a substance, or in mixtures in a concentration equal to, or greater than

<p>Pentachlorophenol CAS No 87-86-5 and its salts and esters</p>	<p>0,1 % by weight</p>
<p>Entry 23. Cadmium CAS No 7440-43-9 EC No 231-152-8 and its compounds</p>	<ul style="list-style-type: none"> • <0.01%w/w in plastic materials or polymer resins; • Exception: <0.1%w/w for recovered PVC and certain materials/article made of recovered PVC(for example, PVC pipes for non-drinking water); • <0.1%w/w in paint; • Exception: articles coloured with mixtures containing cadmium for safety reasons; • Cadmium plating metallic articles are banned; • Exception: certain sectors (aeronautical, aerospace, mining, electrical contacts, etc.); • <0.01%w/w in brazing fillers; • Exception: defense and aerospace applications • <0.01%w/w for metal beads or metal parts used in jewelries and accessories ; •
<p>Entry 24. Monomethyl — tetrachlorodiphenyl Methane, Trade name: Ugilec 141, CAS No 76253-60-6</p>	<ul style="list-style-type: none"> • Banned
<p>Entry 25. Monomethyl-dichloro-diphenyl methane Trade name: Ugilec 121</p>	<ul style="list-style-type: none"> • Banned
<p>Entry 26. Monomethyl-dibromo-diphenyl methane bromobenzylbromotoluene, mixture of isomers , Trade name: DBBT, CAS No 99688-47-8</p>	<ul style="list-style-type: none"> • Banned
<p>Entry 27. Nickel CAS No 7440-02-0 and its compounds</p>	<ul style="list-style-type: none"> • Nickel release is less than 0,2 µg/ cm2/week (migration limit) in any post assemblies which are inserted into pierced ears and other pierced parts of the human body; • 0,5 µg/cm2/week (migration limit) in articles intended to come into direct and prolonged contact with the skin.

<p>Entry 28, 29, 30 Substance classified as CMR 1A or 1B and listed in table 3.1 in the annex VI of CLP regulation</p> <p>CMR: Carcinogen, Mutagen and Reproductive Toxicant</p> <p>This entry covers several hundreds of substances.</p> <p>Examples: Nickel sulfate, Acrylamide, Quinoline, Ethylene oxide, etc.</p>	<ul style="list-style-type: none"> • Substance or mixture supplied to the public: below 0.1%w/w or specific concentration limit specified in table 3.1; • Substance or mixture not supplied to the public: Labelling of “restricted to professional users”. • Exception: certain fuel and motor oil products;
<p>Entry 31 Creosote oil, naphthalene oil, wash oil, anthracene oil or heavy anthracene oil, crude phenols, creosote, wood, Low temperature tar oil, alkaline;</p>	<ul style="list-style-type: none"> • Banned use: treatment of wood; • Exception: use for wood treatment of wood in industrial installations or professional treatment only on the following two conditions: <ul style="list-style-type: none"> - benzo[a]pyrene at a concentration of less than 50 mg/kg (0,005 % by weight), and - water extractable phenols at a concentration of less than 3 % by weight.
<p>Entry 32. Chloroform CAS No 67-66-3</p> <p>Entry 34. 1,1,2-Trichloroethane CAS No 79-00-5</p> <p>Entry 35. 1,1,2,2-Tetrachloroethane CAS No 79-34-5</p> <p>Entry 36. 1,1,1,2-Tetrachloroethane CAS No 630-20-6</p> <p>Entry 37. Pentachloroethane CAS No 76-01-7</p> <p>Entry 38. 1,1-Dichloroethene CAS No 75-35-4</p>	<ul style="list-style-type: none"> • Substance or mixture supplied to the general public and/or intended for diffusive applications such as in surface cleaning and cleaning of fabrics: <0.1%w/w; • For other use (if the concentration is equal to above 0.1%w/w): Indicating “For use in industrial installations only’ on labels. • Exception: medicinal or veterinary products and cosmetic products.

<p>Entry 39 Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1</p>	<ul style="list-style-type: none"> • Banned use: use as substance or as mixtures in aerosol dispensers where these aerosol dispensers are intended for supply to the general public for entertainment and decorative purposes • For other use as aerosol dispensers: Indicating "For professional users only" on labels.
<p>Entry 41. Hexachloroethane, CAS No 67-72-1</p>	<ul style="list-style-type: none"> • Banned use: as substance or in mixture intended for use in the manufacturing or processing of non-ferrous metals.
<p>Entry 43 Azocolourants and Azodyes</p>	<ul style="list-style-type: none"> • Azo-dyes are banned in textile and leather articles which may come into direct and prolonged contact with the human skin or oral cavity if it releases one or more of the aromatic amines listed in Appendix 8, in detectable concentrations, i.e. above 30 mg/kg (0,003 % by weight); • <0.1%w/w in mixture for Azodyes which are contained in Appendix 9 - 'List of azodyes' and are intended for colouring textile and leather articles.
<p>Entry 45 Diphenylether, octabromo derivative</p>	<ul style="list-style-type: none"> • <0.1%w/w in mixture or articles or flame retardant parts; • Exceptin: electrical and electronic equipment.
<p>Entry 46 (a) Nonylphenol , CAS 25154-52-3 (b) Nonylphenol ethoxylates</p>	<ul style="list-style-type: none"> • <0.1%w/w for the following use: industrial and institutional cleaning, domestic cleaning, textiles and leather processing, emulsifier in agricultural teat dips, metal working, manufacturing of pulp and paper, cosmetic product, other personal care products, co-formulants in pesticides and biocides. • Exception: used in controlled closed system where the washing liquid is recycled or incinerated; spermicides;

<p>Entry 47. Chromium VI compounds</p>	<ul style="list-style-type: none"> • Cement and cement-containing mixtures are banned if they contain, when hydrated, more than 2 mg/kg (0,0002 %) soluble chromium VI of the total dry weight of the cement; • Exception: cement and cement-containing mixtures that are handled solely by machines.
<p>Entry 48. Toluene , CAS No 108-88-3</p>	<ul style="list-style-type: none"> • <0.1%w/w in adhesives or spray paints intended for supply to the general public.
<p>Entry 49. Trichlorobenzene , CAS No 120-82-1</p>	<ul style="list-style-type: none"> • Banned use: as a substance, or in mixtures in a concentration equal to, or greater than 0,1 % by weight ; • Exception: <ul style="list-style-type: none"> - as an intermediate of synthesis, or, - as a process solvent in closed chemical applications for chlorination reactions, or, - in the manufacture of 1,3,5-triamino — 2,4,6- trinitrobenzene (TATB).
<p>Entry 50. Polycyclic-aromatic hydrocarbons (PAH) – 8 substances (a) Benzo[a]pyrene (BaP) CAS No 50-32-8 (b) Benzo[e]pyrene (BeP) CAS No 192-97-2 (c) Benzo[a]anthracene (BaA) CAS No 56-55-3 (d) Chrysen (CHR) CAS No 218-01-9 (e) Benzo[b]fluoranthene (BbFA) CAS No 205-99-2 (f) Benzo[j]fluoranthene (BjFA) CAS No 205-82-3 (g) Benzo[k]fluoranthene (BkFA) CAS No 207-08-9 (h) Dibenzo[a,h]anthracene (DBA_hA)</p>	<ul style="list-style-type: none"> • Extender oils shall not be placed on the market, or used for the production of tyres or parts of tyres if they contain: <ul style="list-style-type: none"> — more than 1 mg/kg (0,0001 % by weight) BaP, or, — more than 10 mg/kg (0,001 % by weight) of the sum of all listed PAHs. • Exception: if the poly-cyclic aromatics (PCA) extract is less than 3 % by weight as measured by the Institute of Petroleum standard IP346: 1

CAS No 53-70-3	
<p>Entry 51. Phthalates (or other CAS and EC numbers covering the substance): (a) Bis (2-ethylhexyl) phthalate (DEHP) , CAS No 117-81-7 (b) Dibutyl phthalate (DBP) , CAS No 84-74-2 (c) Benzyl butyl phthalate (BBP) , CAS No 85-68-7</p>	<ul style="list-style-type: none"> • <0.1%w/w in plasticised material, in toys and childcare articles;
<p>Entry 52. Phthalates (or other CAS- and EC numbers covering the substance): (a) Di-‘isononyl’ phthalate (DINP) CAS No 28553-12-0 and 68515-48-0 (b) Di-‘isodecyl’ phthalate (DIDP) CAS No 26761-40-0 and 68515-49-1 (c) Di-n-octyl phthalate (DNOP) , CAS No 117-84-0</p>	<ul style="list-style-type: none"> • <0.1%w/w in toys and childcare articles which can be placed in the mouth by children.
<p>Entry 54. 2-(2-methoxyethoxy)ethanol (DEGME) CAS No 111-77-3</p>	<ul style="list-style-type: none"> • 0.1%w/w in paints, paint strippers, cleaning agents, self-shining emulsions or floor sealants supplied to the general public.
<p>Entry 55. 2-(2-butoxyethoxy)ethanol (DEGBE) CAS No 112-34-5</p>	<ul style="list-style-type: none"> • <3%w/w in spray paints or spray cleaners in aerosol dispensers; • Labelling requirements for paints other than spray paints (if concentration is equal to or above 3%w/w): “Do not use in paint spraying equipment”.
<p>Entry 56. Methylenediphenyl diisocyanate (MDI) CAS No 26447-40-5 including the following specific isomers:</p>	<ul style="list-style-type: none"> • 0.1%w/w in any mixture supplied to the general public; • Exception: hot melt adhesives, mixture in a container with protective gloves and clearly marked.

<p>(a) 4,4'-Methylenediphenyl diisocyanate: CAS No 101-68-8</p> <p>(b) 2,4'-Methylenediphenyl diisocyanate: CAS No 5873-54-1</p> <p>(c) 2,2'-Methylenediphenyl diisocyanate: CAS No 2536-05-2</p>	
<p>57. Cyclohexane CAS No 110-82-7</p>	<ul style="list-style-type: none"> • <0.1%w/w in neoprene-based contact adhesives in package sizes greater than 350 g supplied to the general public; • Additional marking for neoprene-based contact adhesives(\geq0.1%w/w) supplied to the general public: <ul style="list-style-type: none"> - “ This product is not to be used under conditions of poor ventilation”. - “This product is not to be used for carpet laying”
<p>Entry 58 Ammonium nitrate (AN) , CAS No 6484-52-2</p>	<ul style="list-style-type: none"> • <28%w/w for use as a solid fertiliser, straight or compound; • Banned as a substance or 16 % or more by weight of nitrogen in relation to ammonium nitrate in a mixture; • Exception: farmers’ use, professional use, etc.
<p>Entry 59. Dichloromethane, CAS No 75-09-2</p>	<ul style="list-style-type: none"> • <0.1%w/w in paint strippers for consumer or professional use; • Exception: used in industrial installation if certain risk control conditions are met.
<p>Entry 60. Acrylamide CAS No 79-06-1</p>	<ul style="list-style-type: none"> • <0.1%w/w in substance or mixture used in grouting applications;
<p>Entry 61. Dimethylfumarate (DMF) , CAS No 624-49-7</p>	<ul style="list-style-type: none"> • <0,1 mg/kg in any article or part of an article;
<p>Entry 63 Lead CAS No 7439-92-1 and its compounds</p>	<ul style="list-style-type: none"> • <0.05%w/w (in lead) in jewellery articles or parts of a jewellery article; • Exception: crystal glass, internal components of watches, non-synthetic or reconstructed precious and semiprecious stones, and enamels;