

PHASE-OUT LIST

for chemicals hazardous to the environment and human health



CONTENTS

1. Aim	3
2. Application.....	3
3. Definitions.....	3
4. Instructions.....	4
4.1 Established criteria.....	4
4.2 Phase-out list	5
4.2.1 Prohibited substances for healthcare and laboratory operations	5
4.2.2 Phase-out substances for healthcare and laboratory operations.....	8
4.2.3 Phase-out substances in analysis kits within healthcare and laboratory operations	11
4.2.4 Prohibited substances for properties, vehicles and vessels and for the servicing of medical devices	12
4.2.5 Phase-out substances for properties, vehicles and vessels and the servicing of medical devices	13
4.3 Appendix.....	15
4.3.1 Appendix 1: List of perfumes.....	15
4.3.2 Appendix 2: List of lead compounds	16
4.3.3 Appendix 3: List of cadmium compounds.....	18
Notes	19

1 Aim

The aim of the phase-out list is to define the chemicals hazardous to the environment and human health which are relevant for the County Council to phase out.

2 Application

Stockholm County Council's phase-out list covers chemicals which are used by healthcare units and operations responsible for public transport and property. Stockholm County Council's phase-out list is to be used in conjunction with the purchasing and procurement of chemicals, cosmetic products and medical devices of a chemical nature. The list is

also to be used in connection with the procurement of services and maintenance contracts which entail the use of chemicals, cosmetic products and medical devices of a chemical nature. The phase-out list must be followed by all operations funded by the County Council.

3 Definitions

Concept	Definition
Prohibited substance ¹	Chemical whose use is prohibited within the County Council. Prohibited substances consist of substances which have already been phased out from the County Council's operations.
Concentration limit for constituent substance	A substance is considered to be a constituent in a product if it occurs in a concentration $\geq 0,1$ % (weight percent).
The Candidate List (C)	The European Chemicals Agency's (ECHA) List of Substances of Very High Concern ² . Substances on the list are referred to as 'candidate substances'.
Chemical	Chemical substance or mixture of chemical substances which is manufactured or extracted and whose function is primarily determined by its chemical composition.
Analysis kit	Specific composition of chemicals intended for a specific analysis or application. Examples include standards, calibrators and buffer and wash solutions.
Criteria groups ¹	The hazard statements and associated codes which form the basis for the assessment 'hazardous to human health and/or the environment' ³ .
Medical device	A product which according to the manufacturer is to be used to demonstrate, prevent, monitor, treat or palliate an illness or injury.
Medical device of a chemical nature ¹	Product which is classified as a medical device but which has its function primarily determined through its chemical composition. Examples include dental fillings, bone cement, plaster and ultrasound gel.
PRIO database (P)	Web-based database developed by the Swedish Chemicals Agency containing examples of hazardous substances ⁴ .
REACH Regulation	Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), and establishing a European Chemicals Agency.
Specific exemption	The substance is exempt for a specific area of use.
Phase-out substance ¹	Chemical which is to be phased out within the County Council. Phase-out substances relate to targets and guidelines for the environmental work of the County Council.

1 Note that these are Stockholm County Council's definitions.

2 <https://www.echa.europa.eu/candidate-list-table>

3 Established pursuant to Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures, the CLP Regulation.

4 <http://www.kemi.se/prio-start>

4 Instructions

4.1 Established criteria

The inclusion of substances in the phase-out list is based on a number of criteria. These criteria consist of hazard statements and associated hazard codes⁵, and act as a supplement to the lists of prohibited and phase-out substances, as there are other substances on the market which may be hazardous to human health and/or the environment as well as those included in the lists. To ensure that other substances with similar or even more hazardous properties are not purchased or procured instead, the criteria

must be applied in conjunction with procurement and purchases in order to assess the substances. The properties which constitute criteria group 1 are more hazardous than criteria group 2 and the following approach is recommended.

- Chemicals which contain substances covered by a hazard statement in criteria group 1 must not be purchased or procured
- Chemicals which contain substances which are covered by a hazard statement in criteria group 2 should only be purchased or procured in exceptional cases.

Table 2 Criteria group 1

Hazard statement	Hazard statement code
May cause cancer	H350
May cause genetic defects	H340
May damage fertility or the unborn child	H360
May cause harm to breast-fed children	H362
May cause allergy or asthma symptoms or breathing difficulties if inhaled	H334
Fatal if inhaled	H330
Fatal in contact with skin	H310
Fatal if swallowed	H300
Very toxic to aquatic life with long lasting effects	H410
Harms public health and the environment by destroying ozone in the upper atmosphere	EUH059, H420
PBT and vPvB substances in accordance with Annex XIII to REACH	
Potential PBT and vPvB substances in accordance with Annex XIII to REACH	
Other substances which probably have severe effects on human health or the environment (such as endocrine disruptors) in accordance with Article 57(f) of REACH	
Metals of very high concern (cadmium, mercury, lead) and their compounds	

Table 3 Criteria group 2

Hazard statement	Hazard statement code
Suspected of causing cancer	H351
Suspected of causing genetic defects	H341
Suspected of damaging fertility or the unborn child	H361
May cause an allergic skin reaction	H317
Causes damage to organs	H370
May cause damage to organs	H371
Causes damage to organs through prolonged or repeated exposure	H372
Very toxic to aquatic life	H400
Toxic to aquatic life with long lasting effects	H411
Harmful to aquatic life with long lasting effects	H412
May cause long lasting harmful effects to aquatic life	H413
Toxic in contact with skin	H311
Toxic if inhaled	H331

⁵ Established pursuant to Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures, the CLP Regulation.

4.2 Phase-out list

4.2.1 Prohibited substances for healthcare and laboratory operations

The list must be applied by healthcare, laboratory and dental care operations in conjunction with the purchase and procurement of chemicals, cosmetics, cleaning products and medical devices of a chemical nature. Analysis kits are generally exempt in Table 4.

Name	CAS number	Reason for phasing out	Candidate substance (C)	Example areas of use	Exceptions
Citronellol	106-22-9	May cause allergy		Perfume used in detergents, disinfectants, hygiene products, etc.	
1,1,2-trifluoro-1,2,2-trichloroethane (CFC-113)	76-13-1, (group), 26523-64-8	Hazardous to the environment with prolonged effects, Harmful to the ozone layer		Coolant, maintenance products, aerosols	
1,2-Benzisothiazol-3(2H)-one	2634-33-5	May cause allergy, Hazardous to the environment		Preservative used in detergents, maintenance products, dyes/paints and hygiene products	
1,4-Pentanediamine, N1, N1-bis (2-chloroethyl)-N4-(6-chloro-2-methoxy-9-akridinyl)-dihydrochloride	4213-45-0	May cause allergy, Reproductive toxicant		Laboratory chemical	
2,2,4-Trimethylpentane	540-84-1	Environmentally hazardous with long lasting effects		Laboratory chemical, solvent, fuel	
2-Bromo-2-nitropropane-1,3-diol (Bronopol)	52-51-7	Hazardous to the environment		Preservative used in hygiene products, detergents and dyes/paints, etc.	
2-Ethoxyethanol	110-80-5	Toxic if inhaled, Reproductive toxicant	C	Solvent, dye, varnish	
2-Methyl-2H-isothiazol-3-one (MI)	2682-20-4	May cause allergy, Hazardous to the environment		Preservative used in detergents, maintenance products, dyes/paints and hygiene products	Calibration
3-(4,5-Dimethylthiazol-2-yl)-2,5-diphenyl-tetrazolium bromide	298-93-1	Mutagenic		Laboratory chemical	
Disodium 1-((2,4-dimethylphenyl)azo)-2-hydroxynaphthalene-3,6-disulphonate (C.I Acid Red 26)	3761-53-3	May cause cancer		Dye, laboratory chemical	Dye in detergent

Table 4 cont.

Name	CAS number	Reason for phasing out	Candidate substance (C)	Example areas of use	Exceptions
5-Chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one, a mixture of CAS nos. 26172-55-4 and 2682-20-4 (MCI/MI)	55965-84-9	May cause allergy, Environmentally hazardous with long lasting effects		Preservative used in detergents, maintenance products, dyes/paints and hygiene products	
Ammonium dichromate	7789-09-05	Fatal if inhaled, May cause allergy, May cause cancer, Reproductive toxicant, Environmentally hazardous with long lasting effects	C	Laboratory chemical	
Benzene	71-43-2	May cause cancer, Mutagenic		Fuel, operating and maintenance products	
Lead and its compounds in accordance with Appendix 2		Reproductive toxicant, Causes damage to organs, Environmentally hazardous with long lasting effects	C	Dyes/paints, solder, batteries, plastic and rubber products, electrical equipment	Solder for vibration-sensitive products
Boron trifluoride	7637-07-02	Fatal if inhaled		Gas, catalyst	
Bromoacetic acid	79-08-3	May cause allergy, Hazardous to the environment		Disinfectant	
Dibutyl phthalate (DBP)	84-74-2	Reproductive toxicant, Hazardous to the environment, Endocrine disruptor	C	Dyes/paints, glue, sealants, plastic and rubber products	
Dibutyltin dilaurate	77-58-7	May cause allergy, Causes damage to organs, Reproductive toxicant, Hazardous to the environment		Dental products, dyes/paints, varnish, glue, sealants	
Diisopropyl fluorophosphate	55-91-4	Fatal if swallowed or on contact with skin and inhalation		Laboratory chemical	
Dodecyltrimethylammonium hydroxide	94199-93-6	Environmentally hazardous with long lasting effects		Laboratory chemical	
Ethylene oxide	75-21-8	May cause cancer		Disinfectant	
Glutaraldehyde	111-30-8	May cause allergy, Hazardous to the environment		Disinfectants, hygiene products, dental products	Fixing of biological preparations
Hydroquinone	123-31-9	May cause allergy, May cause cancer, Hazardous to the environment		Laboratory chemical, hygiene products, dental products, dyes/paints, varnish, glue, maintenance products, photographic chemical, X-ray	Cementing of bonded tooth replacements, Grimelius stain and Warthin-Starry stain
Cadmium and its compounds in accordance with Appendix 3		May cause cancer, Reproductive toxicant, Causes damage to organs, Hazardous to the environment with long lasting effects	C	Dyes/paints, laboratory chemical, batteries, electrical equipment	

Table 4 cont.

Name	CAS number	Reason for phasing out	Candidate substance (C)	Example areas of use	Exceptions
Cobalt dichloride	7646-79-9	May cause allergy, May cause cancer, Reproductive toxicant, Hazardous to the environment with long lasting effects	C	Laboratory chemical, hygiene products	Enzyme-histochemic stains
Rosin, colophony	8050-09-7, 8052-10-6, 73138-82-6	May cause allergy		Dyes/paints, glue, binding agent	
Methanesulphonyl chloride	124-63-0	May cause allergy		Laboratory chemical	
Naphthalene	91-20-3	May cause cancer, Hazardous to the environment with long lasting effects		Laboratory chemical, solvent, fuel additive, operating and maintenance products	
Sodium arsenite	7784-46-5	Fatal if swallowed and on contact with skin, May cause cancer, Hazardous to the environment with long lasting effects		Laboratory chemical	
Nickel hydroxide carbonate	12607-70-4	May cause allergy, May cause cancer, Reproductive toxicant, Causes damage to organs, Hazardous to the environment with long lasting effects		Laboratory chemical	
N-Methylpyrrolidone	872-50-4	Reproductive toxicant	C	Detergents, solvent, car care products	
Silver nitrate	7761-88-8	Environmentally hazardous with long lasting effects		Laboratory chemical, disinfectants, dental products	Laboratory staining, silver nitrate sticks, Grocott stain
Silver nitrite	7783-99-5	Environmentally hazardous with long lasting effects		Laboratory chemical, disinfectants, dental products	
Triclosan	3380-34-5	Environmentally hazardous with long lasting effects		Detergents, hygiene products	Substrate production
Uranyl nitrate hexahydrate	13520-83-7	Fatal if swallowed or inhaled, May cause damage to organs, Hazardous to the environment with long lasting effects		Laboratory chemical	
Hydrogen fluoride	7664-39-3	Fatal if swallowed or on contact with skin and inhalation		Laboratory chemical, detergents, dental products	Porcelain etch within dental care

4.2.2 Phase-out substances for healthcare and laboratory operations

The list must be applied by healthcare, laboratory and dental care operations in conjunction with the purchase and procurement of chemicals, cosmetics, cleaning products and medical devices of a chemical nature. Analysis kits are generally exempt in Table 5.

Name	CAS number	Reason for phasing out	PRIO substance (P)/Candidate substance (C)	Example areas of use
2-Butanone oxime	Example areas of use	May cause cancer	P	Detergents, dyes/paints, varnish, sealant, operating and maintenance products
2-Methyl-2-propenoic acid, 2-[3-(2H-benzotriazol-2-yl)-4-hydroxyphenyl] ethyl ester	96478-09-0	Environmentally hazardous with long lasting effects		Dental products
4-(4-aminophenyl) (4-iminocyclohexa-2,5-dienylidene methyl) -2-methylaniline hydrochloride (Basic fuchsin)	632-99-5, 58969-01-0	May cause cancer		Laboratory chemical
4,4-Methylene diphenyl diisocyanate	101-68-8	May cause cancer	P	Plaster, glue, dyes/paints
4-Methoxyphenol (Mequinol)	150-76-5	May cause allergy	P	Dental products, dyes/paints, glue
5-Chloro-2-methyl-2H-isothiazol-3-one (MCI)	26172-55-4	Environmentally hazardous with long lasting effects	P	Disinfectant and detergents, hygiene products, dyes/paints, glue
Acrylamide	79-06-1	May cause cancer, Reproductive toxicant	P, C	Binding agent in dyes/paints and glue
Alkanes, C9-12-iso-	90622-57-4	Hazardous to the environment		Solvent, detergents, dyes/paints, glue, operating and maintenance products
Orange oil terpenes, orange oil	8028-48-6	Environmentally hazardous with long lasting effects		Detergent
Benzalkonium chloride	8001-54-5	Environmentally hazardous with long lasting effects		Disinfectant
Benzylalkyldimethylammonium -chloride C12-C14, quaternary ammonium compounds	85409-22-9	Hazardous to the environment		Disinfectant
Bisphenol A dimethacrylate	3253-39-2	Substance which probably has severe effects on human health or the environment		Dental products
Bisphenol A ethoxylate dimethacrylate	41637-38-1	May cause allergy, Hazardous to the environment		Dental products
Bisphenol A and epichlorohydrin	25068-38-6	May cause allergy, Environmentally hazardous with long lasting effects	P	Dental products, glue, maintenance products
Bisphenol A-glycidyl methacrylate (BisGMA)	1565-94-2	May cause allergy		Dental products
Boric acid	10043-35-3	Reproductive toxicant	P, C	Laboratory chemical, disinfectants, wood preservative
Butylhydroxytoluene (BHT)	128-37-0	Suspected endocrine disruptor, Hazardous to the environment with long lasting effects		Laboratory chemical, maintenance products, floor polish
Citral	5392-40-5	May cause allergy	P	Detergent
Cyclohexane	110-82-7	Environmentally hazardous with long lasting effects	P	Laboratory chemical, maintenance products, solvent

Table 5 cont.

Name	CAS number	Reason for phasing out	PRIO substance (P)/Candidate substance (C)	Example areas of use
Cycloheximide	66-81-9	Reproductive toxicant, Hazardous to the environment with long lasting effects	P	Laboratory chemical
Decamethylcyclopentasiloxane (D5)	541-02-6	Hazardous to the environment		Laboratory chemical, detergent and disinfectants, hygiene products, maintenance products
Dibenzoyl peroxide	94-36-0	May cause allergy	P	Dental products, disinfectants, dyes/paints, glue, filler/putty, maintenance products
Didecyldimethylammonium chloride	7173-51-5	Environmentally hazardous with long lasting effects		Disinfectant
Diphenyliodonium hexafluorophosphate	58109-40-3	Fatal if swallowed		Dental products
Diisopropylanthralene	38640-62-9	Environmentally hazardous with long lasting effects		Dental products
Dipotassium peroxodisulphate	7727-21-1	May cause allergy	P	Detergents, hygiene products
Dichlorodimethylsilane	75-78-5	Toxic if inhaled		Dental products
Dichloromethane	75-09-2	May cause cancer		Laboratory chemical, solvent
Dimethylformamide	68-12-2	Reproductive toxicant	P, C	Laboratory chemical
Ethidium bromide	1239-45-8	Mutagenic, Hazardous to the environment with long lasting effects	P	Laboratory chemical
Eugenol	97-53-0	May cause allergy		Dental products
Eucalyptol (Cineol)	470-82-6	May cause allergy	P	Detergent and disinfectants, hygiene products, dental products
Phenol	108-95-2	Mutagenic, Hazardous to the environment with long lasting effects	P	Laboratory chemical, disinfectants, hygiene products
Formaldehyde	50-00-0	May cause allergy, May cause cancer	P	Laboratory chemical, detergents, hygiene products, maintenance products
Formamide	75-12-7	Reproductive toxicant	P, C	Laboratory chemical
Hexamethyldisiloxane	107-46-0	Environmentally hazardous with long lasting effects		Laboratory chemical, detergents, hygiene products
Hexane	110-54-3	Reproductive toxicant, Hazardous to the environment with long lasting effects		Laboratory chemicals, dental products, hygiene products, solvent, glue, maintenance products
Imidazole	288-32-4	Reproductive toxicant		Laboratory chemical
Chlorhexidine and its derivatives	56-95-1, 18472-51-0, 55-56-1	Environmentally hazardous with long lasting effects		Detergents and disinfectants, hygiene products
Chloroform	67-66-3	May cause cancer, Reproductive toxicant	P	Laboratory chemical, dental products
Congo red (C.I. Direct Red 28)	573-58-0	May cause cancer, Reproductive toxicant	P, C	Laboratory chemical
Copper(II)sulphate and its compounds	7758-98-7, 7758-99-8	Environmentally hazardous with long lasting effects	P	Laboratory chemical, disinfectant
Crystal violet (C.I. Basic Violet 3)	548-62-9	May cause cancer, Hazardous to the environment with long lasting effects	P, C	Laboratory chemical

Table 5 cont.

Laboratory chemicals	CAS number	Reason for phasing out	PRIO substance (P)/Candidate substance (C)	Example areas of use
Chromium trioxide	1333-82-0	May cause allergy, May cause cancer, Reproductive toxicant, Hazardous to the environment with long lasting effects	P, C	Laboratory chemical, dyes/paints, electrical equipment, surface-treated metal
Limonene (Dipentene, (±)-Limonene, d-limonene)	5989-27-5, 5989-54-8, 138-86-3	May cause allergy, Environmentally hazardous with long lasting effects	P	Detergents and disinfectants, hygiene products, air freshener, perfume
Malachite green oxalate (C.I. Basic Green 4)	2437-29-8	Reproductive toxicant, Hazardous to the environment with long lasting effects	P	Laboratory chemical
Mecetronium ethylsulphate	3006-10-8	Environmentally hazardous with long lasting effects		Disinfectant
Methyl methacrylate	80-62-6	May cause allergy	P	Dental products, glue, dyes/paints
Naphtha (petroleum), hydrotreated light	64742-49-0	Environmentally hazardous with long lasting effects	P	Laboratory chemical, detergents, maintenance products
Sodium azide	26628-22-8	Environmentally hazardous with long lasting effects	P	Laboratory chemical
Sodium tetraborate and its compounds	1330-43-4, 1303-96-4, 12179-04-3	Reproductive toxicant	P, C	Laboratory chemical, disinfectants, glue, wood preservative, flame retardants, maintenance products
Nitrilotriacetic acid, sodium salt	18662-53-8, 5064-31-3	May cause cancer		Detergents, maintenance products
Nonylphenol ethoxylate and its derivatives	68412-54-4, 9016-45-9, 127087-87-0, 26027-38-3	Environmentally hazardous with long lasting effects	P, C	Detergents, dyes/paints, maintenance products
Octamethylcyclotetrasiloxane (D4)	556-67-2	Reproductive toxicant, Hazardous to the environment with long lasting effects	P	Disinfectants, hygiene products, dyes/paints, glue, maintenance products
Octylphenol ethoxylate and its derivatives	9036-19-5, 9002-93-1 (group)	Suspected endocrine disruptor, Hazardous to the environment with long lasting effects	P, C	Disinfectants, hygiene products, dyes/paints, maintenance products
Paraformaldehyde	30525-89-4	May cause cancer		Laboratory chemical, disinfectant
Pararosaniline hydrochloride (C.I. Basic Red 9)	569-61-9	May cause cancer	P	Laboratory chemical
Perfume in accordance with Appendix 1		May cause allergy		Detergents and disinfectants, hygiene products, air freshener
Petroleum ether	8032-32-4	May cause cancer	P	Laboratory chemical, dyes/paints, maintenance products, detergents
Polyhexamethylene biguanide-hydrochloride (PHMB)	27083-27-8, 32289-58-0	May cause cancer, Hazardous to the environment with long lasting effects	P	Detergents, hygiene products
Propyl 4-hydroxybenzoate (Propylparaben)	94-13-3	Suspected endocrine disruptor		Detergents and disinfectants, hygiene products

Table 5 cont.				
Laboratory chemicals	CAS number	Reason for phasing out	PRIO substance (P)/Candidate substance (C)	Example areas of use
Tiourea	62-56-6	May cause cancer, Reproductive toxicant, Hazardous to the environment with long lasting effects		Laboratory chemicals
Toluene	108-88-3	Reproductive toxicant		Laboratory chemical, solvent, glue, maintenance products
Trichloroacetic acid	76-03-9	Environmentally hazardous with long lasting effects	P	Laboratory chemicals, detergents, hygiene products, dental products
Trioxsalen	3902-71-4	May cause cancer		Hygiene products
Zinc chloride	7646-85-7	Environmentally hazardous with long lasting effects	P	Laboratory chemicals, disinfectant
Zinc oxide	1314-13-2	Environmentally hazardous with long lasting effects	P	Laboratory chemical, hygiene products, glue, maintenance products
Zinc sulphate and its hydrate compounds	7446-19-7, 7446-20-0, 7733-02-0	Environmentally hazardous with long lasting effects	P	Laboratory chemicals, detergents, hygiene products, glue and maintenance products

4.2.3 Phase-out substances in analysis kits within healthcare and laboratory operations

The list must be applied by healthcare and laboratory operations which purchase and procure analysis kits, i.e. a specific composition of chemical products (reagents) intended for a specific analysis or application. Examples of analysis kits include standards, calibrators and buffer or wash solutions. The list is intended to support the long-term work to phase out substances which are hazardous to human health and/or the environment being carried out in partnership with suppliers and method developers.

Table 6			
Name	CAS number	Reason for phasing out	PRIO substance (P)/Candidate substance (C)
Boric acid	10043-35-3	Reproductive toxicant	P, C
Sodium azide	26628-22-8	Environmentally hazardous with long lasting effects	P
Polyethylene glycol octylphenyl ether	9002-93-1 (group)	Suspected endocrine disruptor, Hazardous to the environment with long lasting effects	P, C
4-(1,1,3,3-Tetramethylbutyl) phenol, ethoxylated	9036-19-5	Hazardous to the environment	P, C
Thiomersal	54-64-8	Environmentally hazardous with long lasting effects	
Triclosan	3380-34-5	Environmentally hazardous with long lasting effects	

4.2.4 Prohibited substances for properties, vehicles and vessels and for the servicing of medical devices

The list must be applied by operations which purchase and procure chemicals for the maintenance of public transport and properties, and for the servicing and maintenance of medical devices. Analysis kits are generally exempt in Table 7.

Name	CAS number	Reason for phasing out	Candidate substance (C)	Example areas of use	Exceptions
1,1,2-Trichloro-1,2,2-trifluoroethane (CFC 113)	76-13-1, 26526-64-8 (group)	Hazardous to the environment with prolonged effects, Harmful to the ozone layer		Coolant, degreasant, aerosols	
Lead and its compounds in accordance with Appendix 2		Reproductive toxicant, Causes damage to organs, Environmentally hazardous with long lasting effects	C	Dyes/paints, solder, batteries, plastic and rubber products, electrical equipment,	Solder for vibration-sensitive products
Dibutyl phthalate (DBP)	84-74-2	Toxic for reproduction, Hazardous to the environment	C	Dyes/paint, glue, sealants, plastic, rubber	
Dibutyltin dilaurate	77-58-7	May cause allergy, Causes damage to organs, Reproductive toxicant, Hazardous to the environment		Dental products, dyes/paints, varnish, glue, sealants	
Glutaraldehyde	111-30-8	May cause allergy, Hazardous to the environment		Disinfectants, hygiene products, dental products	
Hydroquinone	123-31-9	May cause allergy, May cause cancer, Hazardous to the environment		Laboratory chemical, hygiene products, dental products, dyes/paints, varnish, glue, maintenance products, photographic chemical, X-ray	Glue
Cadmium and its compounds in accordance with Appendix 3		Fatal if inhaled, May cause cancer, Reproductive toxicant, Causes damage to organs, Hazardous to the environment with long lasting effects	C	Dyes/paints, laboratory chemical, batteries, electrical equipment	
Rosin, colophony	8050-09-07, 8052-10-6, 73138-82-6	May cause allergy		Dyes/paints, glue, binding agent	Glue
N-Methylpyrrolidone	872-50-4	Reproductive toxicant	C	Detergents, solvent, operating and maintenance products	
Silver nitrate	7761-88-8	Environmentally hazardous with long lasting effects		Laboratory chemical, disinfectants, dental products	
Triclosan	3380-34-5	Environmentally hazardous with long lasting effects		Disinfectants, hygiene products, dental products	

4.2.5 Phase-out substances for properties, vehicles and vessels and the servicing of medical devices

The list must be applied by operations which purchase and procure chemicals for the maintenance of public transport and properties, and for the servicing and maintenance of medical devices. Analysis kits are generally exempt in Table 8.

Name	CAS number	Reason for phasing out	PRIO substance (P)/Candidate substance (C)	Example areas of use
(Z)-Octadec-9-enyl amine/Alkenyl amine	112-90-3	May cause allergy, Environmentally hazardous with long lasting effects	P	Maintenance products, rust inhibitor
1,2-Benzisothiazol-3(2H)-one	2634-33-5	May cause allergy, Hazardous to the environment	P	Preservative, detergent and disinfectants, maintenance products, glue, dyes/paints, floor polish
2-Bromo-2-nitropropane-1,3-diol (Bronopol)	52-51-7	Hazardous to the environment		Preservative used in hygiene products, detergents and dyes/paints, etc.
2-Butanone oxime	96-29-7	May cause allergy, May cause cancer	P	Disinfectants, dyes/paints, glue, filler/putty, wood preservative
2-Methyl-2H-isothiazol-3-one (MI)	2682-20-4	May cause allergy, Environmentally hazardous with long lasting effects	P	Preservative, hygiene products, detergents and disinfectants, glue, dyes/paints, lubricant
5-Chloro-2-methyl-2H-isothiazol-3-one (MCI)	26172-55-4	May cause allergy, Environmentally hazardous with long lasting effects	P	Preservative, hygiene products, detergents and disinfectants, glue, dyes/paints, lubricant
5-Chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one, a mixture of CAS nos. 26172-55-4 and 2682-20-4 (MCI/MI)	55965-84-9	May cause allergy, Environmentally hazardous with long lasting effects		Preservative, hygiene products, detergents and disinfectants, glue, dyes/paints, lubricant
Benzene	71-43-2	Reproductive toxicant, May cause cancer	P	Fuel, solvent, residues from the oil refining process
Bisphenol A and epichlorohydrin	25068-38-6	May cause allergy, Environmentally hazardous with long lasting effects	P	Glue
Boric acid	10043-35-3	Reproductive toxicant	P	Laboratory chemical, wood preservative
Butylhydroxytoluene (BHT)	128-37-0	Suspected endocrine disruptor		Stabiliser, antioxidant, floor polish
Cyclohexane	110-82-7	Environmentally hazardous with long lasting effects	P	Solvent
Decamethylcyclopentasiloxane (D5)	541-02-6	Hazardous to the environment		Detergents and disinfectants, hygiene products
Dibenzoyl peroxide	94-36-0	May cause allergy, Hazardous to the environment	P	Disinfectants, dyes/paints, glue, filler/putty
Dodecyl methacrylate	142-90-5	Environmentally hazardous with long lasting effects	P	Glue, lubricant
Heptane	106-89-8	May cause allergy, May cause cancer	P	Disinfectants, dyes/paints, glue

Table 8 cont.

Name	CAS number	Reason for phasing out	PRIO substance (P)/Candidate substance (C)	Example areas of use
Hexane	142-82-5	Environmentally hazardous with long lasting effects	P	Detergents, solvent, dyes/paints, glue
Potassium-2-ethylhexanoate	110-54-3	Reproductive toxicant		Hygiene products, solvents, glue
Medium chain chlorinated paraffins (MCCP)	3164-85-0	Reproductive toxicant		Coolant
Complex hydrocarbons (naphtha, petroleum) with cancer classification	85535-85-9	Environmentally hazardous with long lasting effects	P, C	Dyes/paints, plastic-rubber products
Cumene	Multiple, e.g. 64741-88-4, 64742-54-7, 64742-48-9, 64742-49-0	May cause cancer	P	Detergents, solvent, fuel, dyes/paints, glue, coolant
Limonene (Dipentene, (±)-Limonene, d-limonene)	98-82-8	Hazardous to the environment		Glue
Methoxy acetic acid	5989-27-5, 5989-54-8, 138-86-3	May cause allergy, Environmentally hazardous with long lasting effects	P	Perfume in detergent and disinfectants, hygiene products, air freshener
Stoddard solvent (low boiling naphtha)	625-45-6	Reproductive toxicant	P, C	Detergents, descaling agent
Naphthalene	8052-41-3	May cause cancer	P	Solvent, dyes/paints
Sodium tetraborates and their compounds	91-20-3	Environmentally hazardous with long lasting effects	P	Solvent, fuel additive
Nonylphenol ethoxylate and its derivatives	1303-96-4, 12179-04-3, 1330-43-4	Reproductive toxicant	C	Detergents, glue, wood preservative, flame retardants
Octamethylcyclotetrasiloxane (D4)	68412-54-4, 9016-45-9, 127087-87-0, 26027-38-3	Environmentally hazardous with long lasting effects	P, C	Detergents, dyes/paints
Octamethylcyclotetrasiloxane (D4)	556-67-2	Reproductive toxicant, Hazardous to the environment	P	Detergents, hygiene products, dyes/paints, glue
Perfumes listed in Appendix 1		May cause allergy		Detergents and disinfectants, hygiene products, air freshener
Propyl 4-hydroxybenzoate (Propylparaben)	94-13-3	Reproductive toxicant, Suspected endocrine disruptor		Detergents and disinfectants, hygiene products
Styrene	100-42-5	Reproductive toxicant		Dyes/paints, glue, filler/putty, plastic and rubber products
Tetradecanol	112-72-1	Environmentally hazardous with long lasting effects		Disinfectant
Toluene	108-88-3	Environmentally hazardous with long lasting effects		Solvent, glue
Trizinc bis(orthophosphate)	7779-90-0	Environmentally hazardous with long lasting effects	P	Dyes/paints
Zinc dialkyldithiophosphates	68649-42-3	Hazardous to the environment		Lubricant, antioxidant
Zinc oxide	1314-13-2	Environmentally hazardous with long lasting effects		Detergents, hygiene products, glue, floor polish
Zinc powder-zinc dust (stabilised)	7440-66-6	Environmentally hazardous with long lasting effects	P	Dyes/paints, solder
Zinc sulphate and its hydrate compounds	7733-02-0, 7446-20-0, 7446-19-7	Environmentally hazardous with long lasting effects		Detergents, hygiene products, glue

4.3 Appendix

4.3.1 Appendix 1: List of perfumes

List of the 26 fragrances which must be declared in cosmetics by law (Regulation (EC) No 1223/2009 on cosmetic products, Annex III) and must be stated on the packaging. All of these fragrances may cause allergy.

Appendix 1		
Swedish name	CAS number	Must be declared with the INCI name
Amylkanelalkohol	104-54-1	Amylcinnamyl alcohol
Hexylkanelaldehyd	101-86-0	Hexyl cinnamal
Bensylalkohol	100-51-6	Benzyl alcohol
Bensylbensoat	120-51-4	Benzyl benzoate
Bensylcinnamat	103-41-3	Benzyl cinnamate
Bensylsalicylat	118-58-1	Benzyl salicylate
Citral	5392-40-5	Citral
Kumarin	91-64-5	Coumarin
Anisalkohol	105-13-5	Anise alcohol
Lilial	80-54-6	Butylphenyl methylpropional
Limonen	5989-27-5, 5989-54-8, 138-86-3	Limonene
Linalol	78-70-6	Linalool
Citronellol	106-22-9, 26489-01-0, 7540-51-4, 1117-61-9	Citronellol
Farnesol	4602-84-0	Farnesol
Lyräl	31906-04-4	Hydroxyisohexyl 3-cyclohexene carboxaldehyde
Amylkanelaldehyd	122-40-7	Amyl cinnamal
Eugenol	97-53-0	Eugenol
Geraniol	106-24-1	Geraniol
Hydroxycitronellal	107-75-5	Hydroxycitronellal
Isoeugenol	97-54-1	Isoeugenol
Kanelaldehyd	104-55-2	Cinnamal
Kanelalkohol	104-54-1	Cinnamyl alcohol
Metyl 2-oktynat	111-12-6	Methyl-2-Octynate
Trämosseextrakt	90028-67-4	Evernia furfuracea
Alfa-isometyl-jonon	127-51-5	Alpha isomethyl ionone
Ekmosseextrakt	90028-68-5	Evernia prunastri

4.3.2 Appendix 2: List of lead compounds

List of lead and its compounds. It represents an example of substances which can occur in chemicals.

Appendix 2				
Swedish name	CAS number	Candidate substance (C)	Reason for phasing out	Examples areas of use
(Acetyloxy)tributyl lead	2587-82-8		Reproductive toxicant, Hazardous to the environment with long lasting effects	
[1,2-benzene-dicarboxylato(2-)] dioxotrilead	69011-06-9	C	Reproductive toxicant, Hazardous to the environment with long lasting effects	Metal, plastic
Acetoxytrimethyl lead	5711-19-3		Fatal if swallowed, on skin contact and inhalation, Reproductive toxicant, Hazardous to the environment with long lasting effects	
Pyrochlore, antimony lead yellow (C.I. Pigment Yellow 41)	8012-00-8	C	Reproductive toxicant, Hazardous to the environment with long lasting effects	Ceramic clay, colouring agent
Lead-(C16-18)-carboxylate	91031-62-8	C	Reproductive toxicant, Hazardous to the environment with long lasting effects	Metal, plastic
Lead(II)chloride	7758-95-4		Reproductive toxicant, May cause cancer, Hazardous to the environment with long lasting effects	
Lead(II)perchlorate dihydrate	13453-62-8		Reproductive toxicant, Hazardous to the environment with long lasting effects	
Lead(II)picrate	6477-64-1	C	Reproductive toxicant, Hazardous to the environment with long lasting effects	
Lead(II)sulphate	7446-14-2		Reproductive toxicant, Hazardous to the environment with long lasting effects	
Lead-2,4,6-trinitro-1,3-phenylene dioxide (Lead styphnate)	15245-44-0	C	Reproductive toxicant, Hazardous to the environment with long lasting effects	Pyrotechnical products
Lead acetate	301-04-2, 15347-57-6	C	Reproductive toxicant, Hazardous to the environment with long lasting effects	Hygiene products, water repellent, pesticides, textile processing
Lead acetate, basic	1335-32-6, 51404-69-4	C	May cause cancer, Reproductive toxicant, Hazardous to the environment with long lasting effects	Hair dye, laboratory chemical
Lead azide	13424-46-9	C	Reproductive toxicant, Hazardous to the environment with long lasting effects	Pyrotechnical products
Lead-bis(diethyldithiocarbamate)	17549-30-3		Reproductive toxicant, Hazardous to the environment with long lasting effects	
Lead-bis(tetrafluoroborate)	13814-96-5	C	Reproductive toxicant, Hazardous to the environment with long lasting effects	Surface treatment of metal, laboratory chemical
Lead cyanamidate	20837-86-9	C	Reproductive toxicant, Hazardous to the environment with long lasting effects	
Lead diacetate, trihydrate	6080-56-4		Reproductive toxicant, Hazardous to the environment with long lasting effects	
Lead dibromide	10031-22-8		Reproductive toxicant, Hazardous to the environment with long lasting effects	
Lead difluoride	7783-46-2		Reproductive toxicant, Hazardous to the environment with long lasting effects	
Lead diiodide	10101-63-0		Reproductive toxicant, Hazardous to the environment with long lasting effects	
Lead dinitrate	10099-74-8	C	May cause allergy, May cause cancer, Reproductive toxicant, May cause damage to organs, Hazardous to the environment with long lasting effects	Laboratory chemical, ceramic clay, pyrotechnical products
Lead dioxide	1309-60-0		Reproductive toxicant, Hazardous to the environment with long lasting effects	

Appendix 2 continued

Swedish name	CAS number	Candidate substance (C)	Reason for phasing out	Examples areas of use
Lead fumarate	13698-55-0		Reproductive toxicant, Hazardous to the environment with long lasting effects	
Lead hydroxycarbonate	1319-46-6	C	Reproductive toxicant, Hazardous to the environment with long lasting effects	Alloy
Lead carbonate	598-63-0		Reproductive toxicant, Hazardous to the environment with long lasting effects	
Lead chromate	7758-97-6	C	May cause cancer, Reproductive toxicant, Hazardous to the environment with long lasting effects	Colouring agent
Lead chromate molybdate sulphate (C.I. Pigment Red 104)	12656-85-8	C	Reproductive toxicant, Hazardous to the environment with long lasting effects	Colouring agent
Lead chromate sulphate (C.I. Pigment Yellow 34)	1344-37-2	C	Reproductive toxicant, Hazardous to the environment with long lasting effects	Colouring agent
Lead methane sulphonate	17570-76-2	C	Reproductive toxicant, Hazardous to the environment with long lasting effects	
Lead molybdate	10190-55-3		Reproductive toxicant, Hazardous to the environment with long lasting effects	
Lead monoxide	1317-36-8	C	Reproductive toxicant, May cause cancer, Hazardous to the environment with long lasting effects	Laboratory chemical, pyrotechnical products
Lead oxide	1335-25-7		Reproductive toxicant, Hazardous to the environment with long lasting effects	
Lead oxide sulphate	12036-76-9	C	Reproductive toxicant, Hazardous to the environment with long lasting effects	Metal, plastic
Lead silicate	11120-22-2	C	Toxic if inhaled, Reproductive toxicant, Hazardous to the environment with long lasting effects	Ceramic
Lead sulphide	1314-87-0		Reproductive toxicant, Hazardous to the environment with long lasting effects	
Lead sulphite, dibasic	62229-08-7	C	Reproductive toxicant, Hazardous to the environment with long lasting effects	Metal, plastic
Lead telluride	1314-91-6		May cause cancer, Reproductive toxicant, Hazardous to the environment with long lasting effects	
Lead tetraacetate	546-67-8		Reproductive toxicant, Hazardous to the environment with long lasting effects	
Lead tetraoxide/lead oxide	1314-41-6	C	Reproductive toxicant, May cause damage to organs, May cause cancer, Hazardous to the environment with long lasting effects	Laboratory chemical, colouring agent
Lead thiocyanate	592-87-0		Reproductive toxicant, Hazardous to the environment with long lasting effects	
Lead titanium trioxide (C.I. Pigment Yellow 47)	12060-00-3	C	Reproductive toxicant, Hazardous to the environment with long lasting effects	Colouring agent
Lead titanium zirconium oxide	12626-81-2	C	Reproductive toxicant, Hazardous to the environment with long lasting effects	
Lead hydrogen arsenate	7784-40-9	C	Reproductive toxicant, Hazardous to the environment with long lasting effects	
Diethyl lead	24952-65-6		Reproductive toxicant, Hazardous to the environment with long lasting effects	
Ethyltrimethyl lead	1762-26-1		Reproductive toxicant, Hazardous to the environment with long lasting effects	
Sillicic acid, barium salt (1:2), lead-doped	68784-75-8	C	Reproductive toxicant, Hazardous to the environment with long lasting effects	Dyes/paints
Chlorotriphenyl lead	1153-06-6		Reproductive toxicant, Hazardous to the environment with long lasting effects	

Appendix 2 cont.				
Swedish name	CAS number	Candidate substance (C)	Reason for phasing out	Examples areas of use
Chlorotrimethyl lead	1520-78-1		Reproductive toxicant, Hazardous to the environment with long lasting effects	
Pentalead tetraoxide sulphate	12065-90-6	C	Reproductive toxicant, Hazardous to the environment with long lasting effects	Metal, plastic
Tetrolead trioxide sulphate	12202-17-4	C	Reproductive toxicant, Hazardous to the environment with long lasting effects	Metal, plastic
Tetraphenyl lead	595-89-1		Reproductive toxicant, Hazardous to the environment with long lasting effects	
Tetramethyl lead	75-74-1		Fatal if swallowed, on skin contact and inhalation, Reproductive toxicant, Hazardous to the environment with long lasting effects	
Trilead diarsenate	3687-31-8	C	Reproductive toxicant, Hazardous to the environment with long lasting effects	Alloy
Trilead dicitrate	512-26-5		Reproductive toxicant, Hazardous to the environment with long lasting effects	
Trilead dioxide phosphonate	12141-20-7	C	Reproductive toxicant, Hazardous to the environment with long lasting effects	Metal, plastic
Dioxobis(stearate)trilead	12578-12-0	C	Reproductive toxicant, Hazardous to the environment with long lasting effects	Metal, plastic
Triethyl lead chloride	1067-14-7		Fatal if swallowed, on skin contact and inhalation, Reproductive toxicant, Hazardous to the environment with long lasting effects	
Triphenyl lead acetate	1162-06-7		Reproductive toxicant, Hazardous to the environment with long lasting effects	
Trimethyl lead	14570-16-2		Reproductive toxicant, Hazardous to the environment with long lasting effects	

4.3.3 Appendix 3: List of cadmium compounds

List of cadmium and its compounds. It represents an example of substances which can occur in chemicals.

Appendix 3				
Swedish name	CAS number	Candidate substance (C)	Reason for phasing out	Examples areas of use
Cadmium	7440-43-9	C	May cause cancer, Fatal if inhaled, Causes damage to organs, Reproductive toxicant, Hazardous to the environment with long lasting effects	Laboratory chemical, soldering, enamel
Cadmium fluoride	7790-79-6	C	Fatal if inhaled, May cause cancer, Causes damage to organs, Reproductive toxicant, Hazardous to the environment with long lasting effects	
Cadmium chloride	10108-64-2	C	Fatal if inhaled, May cause cancer, Causes damage to organs, Reproductive toxicant, Hazardous to the environment with long lasting effects	Pesticide, plastic products, colouring agent
Cadmium oxide	1306-19-0	C	Fatal if inhaled, May cause cancer, Causes damage to organs, Reproductive toxicant, Hazardous to the environment with long lasting effects	Pesticide, plastic products, colouring agent
Cadmium sulphate	10124-36-4, 31119-53-6, 7790-84-3	C	Fatal if inhaled, May cause cancer, Causes damage to organs, Reproductive toxicant, Hazardous to the environment with long lasting effects	Pesticide, plastic products, colouring agent
Cadmium sulphide	1306-23-6	C	May cause allergy, Causes damage to organs, Reproductive toxicant	Plastic products, colouring agents

Beställ kostnadsfritt fler exemplar av
Ufasningslista för miljö- och hälsofarliga kemikalier i kemiska produkter
lsf.servicecenter@sll.se