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PART 5/16

**COMMISSION STAFF WORKING DOCUMENT**

**IMPACT ASSESSMENT**

**Defining criteria for identifying endocrine disruptors in the context of the implementation of the plant protection products regulation and biocidal products regulation**

**Annex 4 out of 16**

*Accompanying the document*

**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN  
PARLIAMENT AND THE COUNCIL**

**on endocrine disruptors and the draft Commission acts setting out scientific criteria for their determination in the context of the EU legislation on plant protection products and biocidal products**

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## ANNEX 4

### CHEMICAL SUBSTANCES SCREENED IN THE CONTEXT OF THE IMPACT ASSESSMENT ON CRITERIA TO IDENTIFY ENDOCRINE DISRUPTORS

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## 1. INTRODUCTION

To support the impact assessment, a specific contract was signed in April 2015 under Framework Service Contract No SANCO/2012/02/011 with the aim of screening the available evidence on chemicals used in plant protection and/or biocidal products, as well as a selection of substances falling under the REACH Regulation<sup>1</sup> and the Cosmetic Products Regulation<sup>2</sup>. Some of these selected substances are also priority substances under the Water Framework Directive<sup>3</sup>.

The identity (names and CAS-numbers) of the substances included in this exercise are provided in this Annex. This information was also published in December 2015 on the website of the European Commission<sup>4</sup>. Some chemicals fall within the scope of more than one legislative area and this is clearly indicated in the table below. The final list of substances may be subject to minor changes.

**The screening was carried out in the context of an impact assessment to evaluate the impacts associated to options for criteria to identify endocrine disruptors under the regulations on plant protection products and biocidal products. The screening was based on available evidence (no additional testing) and needed to be carried out in a limited time. The screening methodology was developed for the purpose of the screening exercise. The results of the screening therefore do not constitute evaluations of individual substances to be carried out under the respective chemical legislations [Regulation (EC) No 1107/2009 on plant protection products and Regulation (EU) No 528/2012 on biocidal products] and in no way prejudge future decisions on active substances to be taken pursuant to these two Regulations. It would thus be erroneous to consider that the substances listed in Annex 5 are considered as endocrine disruptors within the meaning of the EU legislation.**

The selection of the chemicals for the impact assessment screening exercise was based on the following general principles but differed between the legislative areas as described further down:

1. the selection process should be transparent and objective;
2. availability of data is crucial for an assessment of endocrine properties. Therefore priority is given to chemicals for which data are available;
3. the selection should not lead to a bias in the assessment of the four options.

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<sup>1</sup> Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency (OJ L 396, 30.12.2006, p. 1). Retrieved from: [http://ec.europa.eu/health/endocrine\\_disruptors/docs/reach\\_1907\\_2006\\_regulation\\_en.pdf](http://ec.europa.eu/health/endocrine_disruptors/docs/reach_1907_2006_regulation_en.pdf)

<sup>2</sup> Regulation (EC) No 1223/2009 of the European Parliament and of the Council of 30 November 2009 on cosmetic products (OJ L 342, 22.12.2009, p. 59). Retrieved from: [http://ec.europa.eu/health/endocrine\\_disruptors/docs/cosmetic\\_1223\\_2009\\_regulation\\_en.pdf](http://ec.europa.eu/health/endocrine_disruptors/docs/cosmetic_1223_2009_regulation_en.pdf)

<sup>3</sup> Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (OJ L 327, 22.12.2000, p. 1). Retrieved from: [http://ec.europa.eu/health/endocrine\\_disruptors/docs/wfd\\_200060ec\\_directive\\_en.pdf](http://ec.europa.eu/health/endocrine_disruptors/docs/wfd_200060ec_directive_en.pdf)

<sup>4</sup> European Commission, DG SANTE, Endocrine disruptors – Impact Assessment. Available on: [http://ec.europa.eu/health/endocrine\\_disruptors/impact\\_assessment/index\\_en.htm](http://ec.europa.eu/health/endocrine_disruptors/impact_assessment/index_en.htm)

## **2. CHEMICAL SUBSTANCES REGULATED UNDER THE PLANT PROTECTION PRODUCTS REGULATION AND THE BIOCIDAL PRODUCTS REGULATION**

All relevant chemicals approved by 11 May 2015 at European level to be used in plant protection products and biocidal products were considered as a starting point.

The screening was then focused by excluding those substances that are considered to be out of scope. The step-wise rationale followed for excluding active substances from the screening is:

1. microorganisms (living organisms, no chemical substances);
2. basic substances, defined in Article 23 of Regulation (EC) No 1107/2009 as being substances of no concern and no inherent capacity to cause endocrine disrupting effects, and where the approval procedures follow particular rules;
3. low risk substances, defined in Annex II to Regulation (EC) 1107/2009 as, among others properties, not deemed to be an endocrine disruptor;
4. natural extracts, mixtures, or repellents;
5. attractants (pheromones) or plant hormones;
6. others (e.g. inert substances, salts, acids).

324 substances falling under the PPP Regulation and 95 substances falling under the BP Regulation were selected following this rationale. Among the 95 BP there are also some chemicals not yet approved but where the corresponding opinions were already adopted by the BP Committee of the European Chemical Agency (ECHA). 23 PPP and 3 BP were not selected following this rationale but appear on the list because they were substances screened during the earlier phase of the project.

## **3. CHEMICAL SUBSTANCES REGULATED UNDER THE REACH REGULATION**

Substances were selected for the screening exercise according to the following step-wise rationale:

1. all substances on the Candidate List already identified as Substances of Very High Concern (SVHC) because of ED concerns under Art. 57(f);
2. all substances for which an SVHC opinion on the identification of the substance as SVHC due to its endocrine disrupting properties was provided by the Member State Committee at ECHA<sup>5</sup>;
3. all substances on the Candidate list identified as SVHC because of reprotoxicity 1A/1B;
4. all substances listed in Annex XVII for restrictions due to an ED concern or because of having a harmonised classification as reprotoxic 1A/1B;
5. all substances placed on the community rolling action plan (CoRAP) due to ED concern.

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<sup>5</sup> Member State Committee (MSC) Opinions on Substances of Very High Concern (SVHC). Retrieved from: <http://echa.europa.eu/role-of-the-member-state-committee-in-the-authorisation-process/svhc-opinions-of-the-member-state-committee>

149 REACH chemical substances were selected following this procedure. Further, 52 substances registered under REACH also appear on the list of screened chemicals but were selected following the rationales applied for other legislative frameworks (i.e. they are either PPP/BP or substances used in cosmetic products) or because they were substances screened during the earlier phase of the project.

#### **4. CHEMICAL SUBSTANCES REGULATED UNDER THE COSMETIC PRODUCTS REGULATION**

Substances used in cosmetic products were selected based on the following criteria:

1. Substances for which an opinion of the Scientific Committee on Consumer Safety (SCCS) was provided, which contained a discussion but not necessarily a conclusion on their endocrine disrupting potential;
2. Substances for which an SCCS opinion was provided due to their potential or de facto classification as carcinogenic, mutagenic, or toxic for reproduction (CMR)1A/1B or CMR2 under the Classification, Labelling and Packaging (CLP) Regulation;
3. Substances not classified as CMR but for which SCCS expressed some concern on toxicity endpoints;
4. Substances for which concern was raised by stakeholders / Member States on potential endocrine disrupting properties;

45 chemical substances falling under the Cosmetic products regulation were selected following this procedure. A further 6 substances falling under the Cosmetic products regulation also appear on the list of screened chemicals because they were selected following the rationales applied for other legislative frameworks (i.e. they are either PPP/BP or REACH substances.)

#### **5. CHEMICAL SUBSTANCES REGULATED UNDER THE WATER FRAMEWORK DIRECTIVE (WFD)**

For the WFD, no specific selection criteria were applied to identify substances for the screening. However, some of the substances on the screening list, selected following the rationales applied for other legislative frameworks (i.e. PPP/BP, Cosmetics or REACH), are listed individually or fall under a group (e.g. lead and its compounds) in the list of priority substances under the WFD.

**6. LIST OF CHEMICAL SUBSTANCES SCREENED IN THE CONTEXT OF THE IMPACT ASSESSMENT ON CRITERIA TO IDENTIFY ENDOCRINE DISRUPTORS (IN ALPHABETICAL ORDER) <sup>6</sup>**

Chemical Name	CAS	Plant Protection Products	Biocidal Products	Cosmetics	REACH	Water Framework Directive
[Phthalato(2-)]dioxotrilead	69011-06-9				1	1*
1,2,3-trichloropropane	96-18-4				1	
1,2,4-trihydroxybenzene	533-73-3			1		
1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate (EC No. 201-559-5)	68515-51-5				1	
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	71888-89-6				1	
1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	68515-42-4				1	
1,2-Benzenedicarboxylic acid, dihexylester, branched and linear	68515-50-4				1	
1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0				1	
1,2-bis(2-methoxyethoxy)ethane (TEGDME, triglyme)	112-49-2				1	
1,2-Diethoxyethane	629-14-1				1	
1,2-Dihydroxy-benzene	120-80-9			1	1*	
1,2-dimethoxyethane, ethylene glycol dimethyl ether (EGDME)	110-71-4				1	
1,4-Dimethylnaphthalene	571-58-4	1				
1-bromopropane (n-propyl bromide)	106-94-5				1	
1-Decanol	112-30-1	1			1*	
1-Methyl-2,6-diamino-benzene	823-40-5			1		
1-Methyl-cyclopropene	3100-04-7	1				
1-Naphthylacetamide (1-NAD)	86-86-2	1				
1-Naphthylacetic acid (1-NAA)	86-87-3	1				
1R-trans phenothrin	26046-85-5		1			
2-(2-butoxyethoxy)ethyl 6-propylpiperonyl ether	51-03-6				1	
2-(2-methoxyethoxy)ethanol	111-77-3			1	1*	
2,2,6,6-tetrabromo-4,4-isopropylidenediphenol	79-94-7				1	
2,2',6,6'-Tetrabromo-4,4'-isopropylidenediphenol, oligomeric reaction products with Propylene oxide and n-butyl glycidyl ether	-				1	

<sup>6</sup> The cells with an \* refer to substances which were not identified following a selection rationale for a specific legislative framework but are on the list because they were selected following the rationales applied for other legislative frameworks or because they were substances screened during the earlier phase of the project.

Chemical Name	CAS	Plant Protection Products	Biocidal Products	Cosmetics	REACH	Water Framework Directive
2,2',6,6'-Tetra-tert-butyl-4,4'-methylenediphenol	118-82-1				1	
2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)	6864-37-5				1	
2,4-D	94-75-7	1				
2,4-DB	94-82-6	1				
2,4-di-tert-butylphenol	96-76-4				1	
2,5-Dichlorobenzoic acid methylester	2905-69-3	1				
2-Amino-3-hydroxypyridine	16867-03-1			1		
2-amino-4-hydroxyethylaminoanisoole sulfate	83763-48-8			1		
2-ethoxyethanol	110-80-5			1	1	
2-ethoxyethyl acetate	111-15-9			1	1	
2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	15571-58-1				1	
2-Ethylhexyl-4-methoxycinnamate	5466-77-3			1	1	
2-Mercaptobenzothiazole	149-30-4			1	1*	
2-methoxyethanol	109-86-4			1	1	
2-methoxyethyl acetate	110-49-6			1		
2-Phenylphenol	90-43-7	1	1		1*	
3-amino-2,6-dimethylphenol	6994-64-5			1		
3-Benzylidene camphor	15087-24-8			1		
3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2				1	
3-methylpyrazole	1453-58-3				1	
4-(1,1,3,3-tetramethylbutyl)phenol	140-66-9				1	1*
4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated	-				1	
4,4'-isopropylidenediphenol (Bisphenol-A)	80-05-7				1	
4,4'-sulfonyldiphenol	80-09-1				1	
4,5-Dichloro-2-octylisothiazol-3(2H)-one	64359-81-5		1			
4-hydroxybenzoic acid	99-96-7				1	
4-Methylbenzylidene camphor	38102-62-4			1		
4-Nonylphenol, branched and linear	-			1	1	1*
4-Nonylphenol, branched and linear, ethoxylated	-				1	
4-tert-butylphenol	98-54-4				1	
6,6'-di-tert-butyl-4,4'-butylidenedi-m-cresol	85-60-9				1	
6,6'-di-tert-butyl-4,4'-thiodi-m-cresol	96-69-5				1	
6-Benzyladenine	1214-39-7	1				
8-Hydroxyquinoline incl. oxyquinoleine	148-24-3	1			1*	

Chemical Name	CAS	Plant Protection Products	Biocidal Products	Cosmetics	REACH	Water Framework Directive
Abamectin (aka avermectin)	71751-41-2	1	1			
Acequinocyl	57960-19-7	1				
Acetaldehyde	75-07-0			1	1*	
Acetamiprid	135410-20-7	1				
Acetic acid, lead salt, basic	51404-69-4				1	1*
Acibenzolar-S-methyl (benzothiadiazole)	135158-54-2	1				
Aclonifen	74070-46-5	1				1*
Acrinathrin	101007-06-1	1				
Acrolein	107-02-8		1		1*	
Alkyl (C12-16) dimethylbenzyl ammonium chloride; C 12-16-ADBAC	68424-85-1		1		1*	
alphachloralose	15879-93-3		1			
Alpha-Cypermethrin (aka alphamethrin)	67375-30-8	1	1			1*
Aluminium phosphide	20859-73-8	1	1			
Aluminium sulphate	10043-01-3	1*			1*	
Ametoctradin	865318-97-4	1				
Amidosulfuron	120923-37-7	1				
Aminopyralid	150114-71-9	1				
Amisulbrom	348635-87-0	1				
Amitrole (aminotriazole)	61-82-5	1				
Ammonium dichromate	7789-09-5				1	
Ammonium pentadecafluorooctanoate (APFO)	3825-26-1				1	
ammonium perchlorate	7790-98-9				1	
Ammonium thiocyanate	1762-95-4				1	
Ascorbic acid	50-81-7	1*				
Azadirachtin	11141-17-6	1				
Azimsulfuron	120162-55-2	1				
Azoxystrobin	131860-33-8	1				
Basic Copper carbonate: inorganic	12069-69-1		1		1*	
Beflubutamid	113614-08-7	1				
Benalaxyl	71626-11-4	1				
Benalaxyl-M	98243-83-5	1				
Bendiocarb	22781-23-3		1			
Benfluralin	1861-40-1	1				
Bensulfuron methyl	83055-99-6	1				
Bentazone	25057-89-0	1				
Benthiavalicarb	413615-35-7	1				
Benzo[a]pyrene	50-32-8				1	1*
Benzoic acid	65-85-0	1	1	1*	1*	
Benzophenone-3	131-57-7			1	1	
Benzotriazole	95-14-7				1	



Chemical Name	CAS	Plant Protection Products	Biocidal Products	Cosmetics	REACH	Water Framework Directive
Benzyl butyl phthalate (BBP)	85-68-7				1	
Beta-Cyfluthrin	68359-37-5	1				
Bifenazate	149877-41-8	1				
Bifenox	42576-02-3	1				1*
Bifenthrin	82657-04-3	1	1			
Bis (2-ethylhexyl)phthalate (DEHP)	117-81-7				1	1*
Bis(2-ethylhexyl) tetrabromophthalate	26040-51-7				1	
Bis(2-methoxyethyl) ether	111-96-6				1	
Bis(2-methoxyethyl) phthalate	117-82-8				1	
Bis(2-propylheptyl) phthalate	53306-54-0				1	
Bispyribac	125401-92-5	1				
Bixafen	581809-46-3	1				
Bordeaux mixture		1*				
Boric acid	10043-35-3		1	1	1	
Boric oxide: inorganic	1303-86-2		1		1	
Boscalid (formerly nicobifen)	188425-85-6	1				
Brodifacoum	56073-10-0		1			
Bromadiolone	28772-56-7	1	1			
Bromoacetic acid	79-08-3		1		1*	
Bromoxynil	1689-84-5	1				
Bromuconazole	116255-48-2	1				
Bupirimate	41483-43-6	1				
Buprofezin	69327-76-0	1				
C(M)IT/MIT	55965-84-9		1			
Cadmium chloride	10108-64-2				1	1*
Cadmium fluoride	7790-79-6				1	1*
Cadmium sulphate	10124-36-4				1	1*
Calcium phosphide	1305-99-3	1*				
Camphor benzalkonium methosulfate	52793-97-2			1		
Capric acid	334-48-5	1	1			
Caprylic acid	124-07-2	1	1		1*	
Captan	133-06-2	1				
Carbetamide	16118-49-3	1				
Carbon dioxide	124-38-9	1*	1*			
Carbon disulphide	75-15-0				1	
Carboxin	5234-68-4	1				
Carfentrazone-ethyl	128639-02-1	1				
Carvone	99-49-0	1				
Chlorantraniliprole	500008-45-7	1				
chlorfenapyr	122453-73-0		1			
Chloridazon (aka pyrazone)	1698-60-8	1				

Chemical Name	CAS	Plant Protection Products	Biocidal Products	Cosmetics	REACH	Water Framework Directive
Chlormequat	7003-89-6	1				
Chloroacetamide	79-07-2			1	1*	
Chloromethane	74-87-3				1	
Chlorophacinone	3691-35-8		1			
Chlorothalonil	1897-45-6	1				
Chlorotoluron	15545-48-9	1				
Chlorpropham	101-21-3	1				
Chlorpyrifos	2921-88-2	1				1*
Chlorpyrifos-methyl	5598-13-0	1				
Chlorsulfuron	64902-72-3	1				
Chromafenozide	143807-66-3	1				
cis-tricos-9-ene (Muscalure)	27519-02-4		1			
Clethodim	99129-21-2	1				
Clodinafop	114420-56-3	1				
Clofentezine	74115-24-5	1				
Clomazone	81777-89-1	1				
Clopyralid	1702-17-6	1				
Clothianidin	210880-92-5	1	1			
Cobalt dichloride	7646-79-9				1	
Cobalt(II) carbonate	513-79-1				1	
Cobalt(II) diacetate	71-48-7				1	
Cobalt(II) dinitrate	10141-05-6				1	
Cobalt(II) sulphate	10124-43-3				1	
Copper (II) oxide	1317-38-0		1		1*	
Copper hydroxide	20427-59-2	1	1		1*	
Copper pyrithione	14915-37-8		1			
Copper sulphate pentahydrate	7758-99-8		1			
Coumatetralyl	5836-29-3		1			
Creosote	8001-58-9		1			
Cu-HDO	312600-89-8		1			
Cyazofamid	120116-88-3	1				
Cycloxydim	101205-02-1	1				
Cyflufenamid	180409-60-3	1				
Cyflumetofen	400882-07-7	1				
Cyhalofop-butyl	122008-85-9	1				
Cymoxanil	57966-95-7	1				
Cypermethrin	52315-07-8	1	1			1*
Cyproconazole	94361-06-5	1	1			
Cyprodinil	121552-61-2	1				
Cyromazine	66215-27-8	1				
Daminozide	1596-84-5	1				
Dapsone	80-08-0				1	

Chemical Name	CAS	Plant Protection Products	Biocidal Products	Cosmetics	REACH	Water Framework Directive
Dazomet	533-74-4	1	1			
DCPP	3380-30-1		1		1*	
DDACarbonate	894406-76-9		1			
Decamethylcyclopentasiloxane	541-02-6			1	1*	
Deltamethrin	52918-63-5	1	1			
Denathonium benzoate	3734-33-6	1*				
Desmedipham	13684-56-5	1				
Dibutyl phthalate (DBP)	84-74-2				1	
Dibutyltin	-				1	
Dibutyltin dichloride (DBTC)	683-18-1				1	
Dicamba	1918-00-9	1				
dichlofluanid	1085-98-9		1			
Dichloromethane	75-09-2			1	1*	1*
Dichlorprop-P	15165-67-0	1				
Diclofop	51338-27-3	1				
Didecyldimethylammonium chloride; DDAC	7173-51-5		1		1*	
Diethofencarb	87130-20-9	1				
diethyl phthalate	84-66-2			1*	1	
Diethylene glycol monobutyl ether	111-90-0			1	1*	
Difenacoum	56073-07-5	1	1			
Difenoconazole	119446-68-3	1				
Difethialone	104653-34-1		1			
Diiflubenzuron	35367-38-5	1	1			
Diiflufenican	83164-33-4	1				
Dihexyl phthalate	84-75-3				1	
diisobutyl phthalate (DIBP)	84-69-5				1	
Diisopentylphthalate	605-50-5				1	
Dimethachlor	50563-36-5	1				
Dimethenamid-P	163515-14-8	1				
Dimethoate	60-51-5	1				
Dimethomorph	110488-70-5	1				
Dimethyl glutarate	1119-40-0				1	
Dimoxystrobin	149961-52-4	1				
Dinoseb (6-sec-butyl-2,4-dinitrophenol)	88-85-7				1	
Dinotefuran	165252-70-0		1			
dioctyltin oxide	870-08-6				1	
Dioxobis(stearato)trilead	12578-12-0				1	1*
Dipentyl phthalate (DPP)	131-18-0				1	
Diphenylether, octabromo derivative C <sub>12</sub> H <sub>2</sub> Br <sub>8</sub> O	-				1	
Diquat (dibromide)	2764-72-9	1				
Disodium octaborate tetrahydrate	12280-03-4		1			

Chemical Name	CAS	Plant Protection Products	Biocidal Products	Cosmetics	REACH	Water Framework Directive
Disodium phosphonate	13708-85-5	1*				
Disodium tetraborate decahydrate	1303-96-4		1			
Disodium tetraborate pentahydrate	12267-73-1		1		1	
Disodium tetraborate, anhydrous	12179-04-3				1	
Disodium tetraborate: inorganic or basic (food additive)	1330-43-4		1		1*	
Distillates (coal tar), naphthalene oils, naphthalene oil	84650-04-4				1	
Dithianon	3347-22-6	1				
Diuron	330-54-1	1			1	1*
Di- $\mu$ -oxo-di-n-butylstanniohydroxyborane/ Dibutyltin hydrogen borate C <sub>8</sub> H <sub>19</sub> BO <sub>3</sub> Sn (DBB)	75113-37-0				1	
Dodemorph	1593-77-7	1				
Dodine	112-65-2	1				
Emamectin	155569-91-8	1				
Epoxiconazole	133855-98-8	1				
Esfenvalerate	66230-04-4	1				
Ethephon	16672-87-0	1				
Ethofumesate	26225-79-6	1				
Ethoprophos	13194-48-4	1				
Ethyl butylacetylaminopropionate	52304-36-6		1			
Ethylene Glycol Monobutyl Ether	111-76-2			1	1*	
Etofenprox	80844-07-1	1	1			
Etoazole	153233-91-1	1				
Etridiazole	2593-15-9	1				
Eugenol	97-53-0	1*			1*	
Famoxadone	131807-57-3	1				
Fatty acids, C16-18, lead salts	91031-62-8				1	1*
Fenamidone	161326-34-7	1				
Fenamiphos (aka phenamiphos)	22224-92-6	1				
Fenazaquin	120928-09-8	1				
Fenbuconazole	114369-43-6	1				
Fenhexamid	126833-17-8	1				
Fenoxaprop-P	113158-40-0	1				
Fenoxycarb	72490-01-8	1	1			
Fenpropidin	67306-00-7	1				
Fenpropimorph	67564-91-4	1	1			
Fenpyrazamine	473798-59-3	1				
Fenpyroximate	134098-61-6	1				
Ferric phosphate	10045-86-0	1*			1*	
Fipronil	120068-37-3	1	1			
Flazasulfuron	104040-78-0	1				

Chemical Name	CAS	Plant Protection Products	Biocidal Products	Cosmetics	REACH	Water Framework Directive
Flocoumafen	90035-08-8		1			
Flonicamid (IKI-220)	158062-67-0	1				
Florasulam	145701-23-1	1				
Fluazifop-P	83066-88-0	1			1*	
Fluazinam	79622-59-6	1				
Flubendiamide	272451-65-7	1				
Fludioxonil	131341-86-1	1				
Flufenacet (formerly fluthiamide)	142459-58-3	1				
flufenoxuron	101463-69-8		1			
Flumioxazin	103361-09-7	1				
Fluometuron	2164-17-2	1				
Fluopicolide	239110-15-7	1				
Fluopyram	658066-35-4	1				
Fluoxastrobin	361377-29-9	1				
Flupyrulfuron-methyl (DPX KE 459)	144740-54-5	1				
Fluquinconazole	136426-54-5	1				
Flurochloridone	61213-25-0	1				
Fluroxypyr	69377-81-7	1				
Flurtamone	96525-23-4	1				
Flutolanil	66332-96-5	1				
Flutriafol	76674-21-0	1				
Fluxapyroxad	907204-31-3	1				
Folpet	133-07-3	1	1			
Foramsulfuron	173159-57-4	1				
Forchlorfenuron	68157-60-8	1				
Formamide	75-12-7				1	
Formetanate	22259-30-9	1				
Fosetyl	39148-24-8	1				
Fosthiazate	98886-44-3	1				
Fuberidazole	3878-19-1	1				
Furfural	98-01-1			1	1*	
Gamma-cyhalothrin	76703-62-3	1				
Geraniol	106-24-1	1*			1*	
Glufosinate	51276-47-2	1				
Glutaraldehyde	111-30-8		1		1*	
Glyphosate (incl trimesium aka sulfosate)	1071-83-6	1				
Halosulfuron methyl	100784-20-1	1				
Haloxyfop-P (Haloxyfop-R)	95977-29-0	1				
Heptamaloxylloglucan	870721-81-6	1				
Hexaflumuron	86479-06-3		1			
Hexythiazox	78587-05-0	1				

Chemical Name	CAS	Plant Protection Products	Biocidal Products	Cosmetics	REACH	Water Framework Directive
Hydrochloric acid	7647-01-0		1		1*	
hydrogen cyanide	74-90-8		1		1*	
Hydrogen peroxide	7722-84-1		1		1*	
Hydroxyethyl-3,4-methylenedioxyaniline HCl	94158-14-2			1		
Hydroxyethyl-p-phenylenediamine sulfate	93841-25-9			1		
Hymexazol	10004-44-1	1				
Imazalil (aka enilconazole)	35554-44-0	1				
Imazamox	114311-32-9	1				
Imazaquin	81335-37-7	1				
Imazosulfuron	122548-33-8	1				
Imidacloprid	138261-41-3	1	1			
Imidazolidine-2-thione (2-imidazoline-2-thiol)	96-45-7				1	
Indolylbutyric acid	133-32-4	1				
Indoxacarb	144171-61-9	1				
Indoxacarb (enantiomeric reaction mass S:R 75:25)	173584-44-6		1			
Iodine	7553-56-2		1		1*	
Iodosulfuron	185119-76-0	1				
IPBC	55406-53-6		1	1*		
Ipconazole	125225-28-7	1				
Iprodione	36734-19-7	1				
Iprovalicarb	140923-17-7	1				
Isopentyl-p-Methoxycinnamate	71617-10-2			1	1	
Isoproturon	34123-59-6	1				1*
Isopyrazam	881685-58-1	1				
Isoxaben	82558-50-7	1				
Isoxaflutole	141112-29-0	1				
K-HDO	66603-10-9		1			
Kojic Acid	501-30-4			1		
Kresoxim-methyl	143390-89-0	1				
lambda-Cyhalothrin	91465-08-6	1	1			
Laminarin	9008-22-4	1				
Lauric acid	143-07-7	1*	1*		1*	
Lead bis(tetrafluoroborate)	13814-96-5				1	1*
Lead chromate	7758-97-6				1	1*
Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	12656-85-8				1	1*
Lead cyanamidate	20837-86-9				1	1*
Lead di(acetate)	301-04-2				1	1*
Lead diazide, Lead azide	13424-46-9				1	1*
Lead dinitrate	10099-74-8				1	1*
Lead dipicrate	6477-64-1				1	1*

Chemical Name	CAS	Plant Protection Products	Biocidal Products	Cosmetics	REACH	Water Framework Directive
Lead hydrogen arsenate	7784-40-9				1	1*
Lead monoxide (lead oxide)	1317-36-8				1	1*
Lead oxide sulfate	12036-76-9				1	1*
Lead styphnate	15245-44-0				1	1*
Lead sulfochromate yellow (C.I. Pigment Yellow 34)	1344-37-2				1	1*
Lead titanium trioxide	12060-00-3				1	1*
Lead titanium zirconium oxide	12626-81-2				1	1*
Lead(II) bis(methanesulfonate)	17570-76-2				1	1*
Lenacil	2164-08-1	1				
Limestone	1317-65-3	1*				
Linuron	330-55-2	1				
Low temperature tar oil, alkaline, extract residues (coal), low temperature coal tar alkaline	122384-78-5				1	
Lufenuron	103055-07-8	1				
Magnesium phosphide	12057-74-8	1	1			
Malathion	121-75-5	1				
Maleic hydrazide	123-33-1	1				
Mancozeb	8018-01-7	1				
Mandipropamid	374726-62-2	1				
Maneb	12427-38-2	1				
MBM	5625-90-1		1			
MCPA	94-74-6	1				
MCPB	94-81-5	1				
Mecoprop	93-65-2	1				
Mecoprop-P	16484-77-8	1			1*	
Medetomidine	86347-14-0		1			
Mepanipyrim	110235-47-7	1				
Mepiquat	15302-91-7	1				
Meptyldinocap	6119-92-2	1				
Mercury	7439-97-6				1	1*
Mesosulfuron	400852-66-6	1				
Mesotrione	104206-82-8	1				
Metaflumizone	139968-49-3	1				
Metalaxyl	57837-19-1	1				
Metalaxyl-M	70630-17-0	1				
Metaldehyde	108-62-3	1				
Metam (incl. -potassium and -sodium)	144-54-7	1				
Metamitron	41394-05-2	1				
Metazachlor	67129-08-2	1				
Metconazole	125116-23-6	1				
Methomyl	16752-77-5	1				

Chemical Name	CAS	Plant Protection Products	Biocidal Products	Cosmetics	REACH	Water Framework Directive
Methoxyacetic acid	625-45-6				1	
Methoxyfenozide	161050-58-4	1				
Methyl 4-hydroxybenzoate	99-76-3				1	
Methyl decanoate	110-42-9	1			1*	
Methyl nonyl ketone	112-12-9	1*	1*			
Methyl octanoate	111-11-5	1			1*	
Metiram	9006-42-2	1				
Metobromuron	3060-89-7	1				
Metofluthrin	240494-71-7		1			
Metosulam	139528-85-1	1				
Metrafenone	220899-03-6	1				
Metribuzin	21087-64-9	1				
Metsulfuron-methyl	74223-64-6	1				
Milbemectin	51596-10-2	1				
MIT	2682-20-4		1	1*		
Musk Ketone	81-14-1			1		
Musk Xylene	81-15-2			1		
Myclobutanil	88671-89-0	1				
N,N-diethyl-meta-toluamide	134-62-3		1			
N,N-dimethylacetamide	127-19-5				1	
N,N-dimethylformamide	68-12-2				1	
Napropamide	15299-99-7	1				
Nicosulfuron	111991-09-4	1				
Nitrobenzene	98-95-3				1*	
Nitrogen	7727-37-9		1			
N-Methyl-2-pyrrolidone	872-50-4			1	1	
N-methylacetamide	79-16-3				1	
N-pentyl-isopentylphthalate	776297-69-9				1	
N-Phenyl-P-Phenylenediamine	101-54-2			1	1*	
n-Tetradecylacetate		1				
o-Aminophenol	95-55-6			1	1*	
Octabenzene	1843-05-6				1	
Octamethyl cyclotetrasiloxane	556-67-2			1	1*	
Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol [Previously registered as Phenol, methylstyrenated - EC N. 270-966-8 and CAS N. 68512-30-1]	-				1	
Orange lead (lead tetroxide)	1314-41-6				1	1*
Oryzalin	19044-88-3	1				
Oxadiazon	19666-30-9	1				
Oxamyl	23135-22-0	1				
Oxasulfuron	144651-06-9	1				



Chemical Name	CAS	Plant Protection Products	Biocidal Products	Cosmetics	REACH	Water Framework Directive
Oxyfluorfen	42874-03-3	1				
p-(1,1-dimethylpropyl)phenol	80-46-6				1	
Pacllobutrazol	76738-62-0	1				
p-aminophenol	123-30-8			1	1*	
Parabens				1		
Paraformaldehyde	30525-89-4			1		
p-cresol	106-44-5				1	
Pelargonic acid	112-05-0	1*	1		1*	
Penconazole	66246-88-6	1				
Pencycuron	66063-05-6	1				
Pendimethalin	40487-42-1	1				
Penflufen	494793-67-8	1				
Penoxsulam	219714-96-2	1				
Pentadecafluorooctanoic acid (PFOA)	335-67-1				1	
Pentalead tetraoxide sulphate	12065-90-6				1	1*
Penthiopyrad	183675-82-3	1				
Permethrin	52645-53-1		1			
Pethoxamid	106700-29-2	1				
Phenmedipham	13684-63-4	1				
phenol, styrenated, reaction mass of 2,4,6-tris(1-phenyl-ethyl)phenol and Bis(1-phenylethyl) phenol	61788-44-1				1	
Phenolphthalein				1		
Phosmet	732-11-6	1				
Picloram	1918-02-1	1				
Picolinafen	137641-05-5	1				
Picoxystrobin	117428-22-5	1				
Pirimicarb	23103-98-2	1				
Pirimiphos-methyl	29232-93-7	1				
p-METHYLAMINOPHENOL sulphate	1936-57-8			1		
Polyhexamethylene biguanide hydrochloride	27083-27-8			1		
Polyvinylpyrrolidone iodine	25655-41-8		1			
Potassium dichromate	7778-50-9				1	
Potassium sorbate	24634-61-5		1		1*	
p-phenylenediamine	106-50-3			1	1*	
Prochloraz	67747-09-5	1				
Profoxydim	139001-49-3	1				
Prohexadione	127277-53-6	1				
Propamocarb	24579-73-5	1				
Propan-2-ol	67-63-0		1		1*	
Propaquizafop	111479-05-1	1				
Propargite	2312-35-8				1	

Chemical Name	CAS	Plant Protection Products	Biocidal Products	Cosmetics	REACH	Water Framework Directive
Propiconazole	60207-90-1	1	1			
Propineb	12071-83-9	1				
Propoxycarbazone	145026-81-9	1				
propyl 4-hydroxybenzoate	94-13-3				1	
Propyzamide	23950-58-5	1				
Proquinazid	189278-12-4	1				
Prosulfocarb	52888-80-9	1				
Prosulfuron	94125-34-5	1				
Prothioconazole	178928-70-6	1				
Pymetrozine	123312-89-0	1				
Pyraclostrobin	175013-18-0	1				
Pyraflufen-ethyl	129630-19-9	1				
Pyrethrins	121-21-1	1				
Pyridaben	96489-71-3	1				
Pyridalyl	179101-81-6	1				
Pyridate	55512-33-9	1				
Pyrimethanil	53112-28-0	1				
Pyriofenone	688046-61-9	1				
Pyriproxyfen	95737-68-1	1	1			
Pyrochlore, antimony lead yellow	8012-00-8				1	1*
Pyroxsulam	422556-08-9	1				
Quaternium-15 (cis-isomer)	51229-78-8			1		
Quinmerac	90717-03-6	1				
Quinoclamine	2797-51-5	1				
Quinoxifen	124495-18-7	1				1*
Quizalofop-P	94051-08-8	1				
Quizalofop-P-ethyl	100646-51-3	1				
Quizalofop-P-tefuryl	119738-06-6	1				
reaction mass of 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one and 1-(1,2,3,4,6,7,8,8a-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one and 1-(1,2,3,5,6,7,8,8a-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	-				1	
reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate and 2-ethylhexyl 10-ethyl-4-[[2-[(2-ethylhexyl)oxy]-2-oxoethyl]thio]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (reaction mass of DOTE and MOTE)	-				1	
Reaction product: bisphenol-A-(epichlorhydrin),epoxy resin	25068-38-6				1	

Chemical Name	CAS	Plant Protection Products	Biocidal Products	Cosmetics	REACH	Water Framework Directive
(number average molecular weight ≤ 700)						
Repellents by smell of animal or plant origin/ sheep fat	98999-15-6	1*				
Repellents by smell of animal or plant origin/ tall oil crude	8002-26-4	1*				
Repellents by smell of animal or plant origin/ tall oil pitch	8016-81-7	1*				
Resorcinol	108-46-3			1*	1	
Rimsulfuron (aka renniduron)	122931-48-0	1				
Sea-algae extract (formerly sea-algae extract and seaweeds)	Not applicable	1*				
Sedaxane	874967-67-6	1				
Silicic acid (H <sub>2</sub> Si <sub>2</sub> O <sub>5</sub> ), barium salt (1:1), lead-doped,	68784-75-8				1	
Silicic acid, lead salt	11120-22-2				1	1*
Silthiofam	175217-20-6	1				
Sintofen (aka Cintofen)	130561-48-7	1				
S-Methoprene	65733-16-6		1			
S-Metolachlor	178961-20-1	1				
Sodium 5-nitroguaiacolate	67233-85-6	1				
Sodium chromate	7775-11-3				1	
Sodium dichromate	10588-01-9				1	
Sodium o-nitrophenolate	824-39-5	1				
Sodium perborate,perboric acid, sodium salt	-				1	
sodium perchlorate	7601-89-0				1	
Sodium peroxometaborate	7632-04-4				1	
Sodium p-nitrophenolate	824-78-2	1				
Spinetoram	187166-15-0	1				
Spinosad	168316-95-8	1	1			
Spirodiclofen	148477-71-8	1				
Spiromesifen	283594-90-1	1				
Spirotetramat	203313-25-1	1				
Spiroxamine	118134-30-8	1				
Sucrose	57-50-1	1*				
Sulcotrione	99105-77-8	1				
Sulfosulfuron	141776-32-1	1				
Sulfurous acid, lead salt, dibasic	62229-08-7				1	1*
Sulfuryl fluoride	2699-79-8	1	1			
Tar acids, coal, crude,crude phenols	65996-85-2				1	
tau-Fluvalinate	102851-06-9	1				
Tebuconazole	107534-96-3	1	1			
Tebufenozide	112410-23-8	1				
Tebufenpyrad	119168-77-3	1				

Chemical Name	CAS	Plant Protection Products	Biocidal Products	Cosmetics	REACH	Water Framework Directive
Teflubenzuron	83121-18-0	1				
Tefluthrin	79538-32-2	1				
Tembotrione	335104-84-2	1				
Tepraloxymid	149979-41-9	1				
Terbutylazine	5915-41-3	1				
Tert-butyl methyl ether	1634-04-4				1	
tert-butyl-4-methoxyphenol	25013-16-5				1	
Tetraconazole	112281-77-3	1				
Tetraethyllead	78-00-2				1	1*
Tetralead trioxide sulphate	12202-17-4				1	1*
Thiabendazole	148-79-8	1	1			
Thiacloprid	111988-49-9	1	1			
Thiamethoxam	153719-23-4	1	1			
Thiencarbazone	317815-83-1	1				
Thifensulfuron-methyl	79277-27-3	1				
Thiophanate-methyl	23564-05-8	1				
Thiram	137-26-8	1			1	
Thymol	89-83-8	1*			1*	
Tolclofos-methyl	57018-04-9	1				
toluene-2,5-diamine sulfate	615-50-9			1	1*	
tolyfluanid	731-27-1		1			
Tralkoxydim	87820-88-0	1				
Tralopyril	122454-29-9		1			
Transfluthrin	118712-89-3		1			
Triadimenol	55219-65-3	1				
Tri-allate	2303-17-5	1				
Triasulfuron	82097-50-5	1				
Triazoxide	72459-58-6	1				
Tribasic copper sulfate	1333-22-8	1*				
Tribenuron (aka metometuron)	106040-48-6	1				
Tributyltin compounds	-				1	1*
Triclopyr	55335-06-3	1				
Triclosan	3380-34-5			1*	1	
Trifloxystrobin	141517-21-7	1				
Triflumizole	68694-11-1	1				
Triflumuron	64628-44-0	1	1			
Triflusulfuron	135990-29-3	1				
Trilead bis(carbonate) dihydroxide	1319-46-6				1	1*
Trilead diarsenate	3687-31-8				1	1*
Trilead dioxide phosphonate	12141-20-7				1	1*
Trimethylamine hydrochloride	593-81-7	1			1*	
Trinexapac (aka cimeta carb ethyl)	143294-89-7	1				

<b>Chemical Name</b>	<b>CAS</b>	<b>Plant Protection Products</b>	<b>Biocidal Products</b>	<b>Cosmetics</b>	<b>REACH</b>	<b>Water Framework Directive</b>
Triphenyl phosphate	115-86-6				1	
Triphenyl phosphite	101-02-0				1	
Triphenyltin	-				1	
Tris(2-chloroethyl)phosphate	115-96-8				1	
Triticonazole	131983-72-7	1				
Tritosulfuron	142469-14-5	1				
Trixylyl phosphate	25155-23-1				1	
Urea	57-13-6	1*			1*	
Valifenalate (formerly Valiphenal)	283159-90-0	1				
Warfarin	81-81-2		1		1*	
Warfarin sodium	129-06-6		1			
zeta-Cypermethrin	1315501-18-8	1				
Zinc phosphide	1314-84-7	1*				
Zineb	12122-67-7		1			
Ziram	137-30-4	1			1	
Zoxamide	156052-68-5	1				