EUROPEAN COMMISSION

Directorate-General for Health & Consumers

Scientific Committee on Consumer Safety

SCCS

OPINION ON

the new classification of substances as carcinogenic, mutagenic or toxic to reproduction according to the Commission Regulation 790/2009

Scientific Committees
on consumer safety
on emerging and newly identified health risks
on health and environmental risks

The SCCS adopted this opinion at its 5th plenary meeting
of 8 December 2009

About the Scientific Committees

Three independent non-food Scientific Committees provide the Commission with the scientific advice it needs when preparing policy and proposals relating to consumer safety, public health and the environment. The Committees also draw the Commission's attention to the new or emerging problems which may pose an actual or potential threat.
They are: the Scientific Committee on Consumer Safety (SCCS), the Scientific Committee on Health and Environmental Risks (SCHER) and the Scientific Committee on Emerging and Newly Identified Health Risks (SCENIHR) and are made up of external experts.

In addition, the Commission relies upon the work of the European Food Safety Authority (EFSA), the European Medicines Evaluation Agency (EMEA), the European Centre for Disease prevention and Control (ECDC) and the European Chemicals Agency (ECHA).

SCCS

The Committee shall provide opinions on questions concerning all types of health and safety risks (notably chemical, biological, mechanical and other physical risks) of non-food consumer products (for example: cosmetic products and their ingredients, toys, textiles, clothing, personal care and household products such as detergents, etc.) and services (for example: tattooing, artificial sun tanning, etc.).

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Not applicable

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1. BACKGROUND

The Cosmetics Directive as modified by the Council and the European Parliament (2003/15/EC[1]), which is based on an opinion of the SCCNFP of September 2001 (SCCNFP/0474/01, final), stipulates that *"the use in cosmetic products of substances classified as carcinogenic, mutagenic or toxic for reproduction, of category 1, 2 and 3, under Annex I to Directive 67/548/EEC shall be prohibited. To that end the Commission shall adopt the necessary measures in accordance with the procedure referred to in Article 10(2). A substance classified in category 3 may be used in cosmetics if the substance has been evaluated by the SCCNFP and found acceptable for use in cosmetic products."*

In order to implement that provision, the Commission consulted the SCCNFP and on 25 May 2004, the SCCNFP confirmed its opinion of 25 September 2001 (SCCNFP/0825/04). The Commission adopted Directive 2004/93/EC in order to amend accordingly Annexes II and III of the Cosmetics Directive. Subsequently, the SCCP has been consulted following each adaptation of Annex I to Council Directive 67/548/EEC[2].

On 21 August 2008 and on 15 of January 2009 the Commission adopted respectively Directives 2008/58/EC[3] and 2009/2/EC[4] amending Council Directive 67/548/EEC of 27 June 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances providing new classifications[5].

The Annex attached to this mandate lists the substances concerned by the new classification which are not yet banned within the Cosmetics Directive. A separate request has been issued regarding the evaluation of the classified boron compounds.

2. TERMS OF REFERENCE

In relation to the substances annexed, the SCCS is asked whether there are new elements that would lead it to amend its opinion on CMR substances of 25 September 2001, and if so, to revise it accordingly.

1 OJ L 66, 11.03.2003, p. 26. See recital (12).

(12) "The SCCNFP stated in its opinion of 25 September 2001 that substances classified pursuant to Council Directive 67/548/EEC of 27 June 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances(2) as carcinogenic (except substances only carcinogenic by inhalation), mutagenic or toxic for reproduction, of category 1 or 2, and substances with similar potential, must not be intentionally added to cosmetic products, and that substances classified pursuant to Directive 67/548/EEC as carcinogenic, mutagenic or toxic for reproduction, of category 3, and substances with similar potential, must not be intentionally added to cosmetic products unless it can be demonstrated that their levels do not pose a threat to the health of the consumer."
(2) OJ 196, 16.8.1967, p. 1. Directive as last amended by Commission. Directive 2001/59/EC (OJ L 225, 21.8.2001, p. 1).

2 SCCP/0888/05 and SCCP/0913/05.

3 OJ L 246, 15.09.2008, p. 1.

4 OJ L 11, 16.01.2009, p. 6

5 The classification provided by these two Directives has been taken over by Commission Regulation 790/2009 amending EC Regulation 1272/2008 which deleted Annex I of Council Directive 67/548/EEC as from 20 January 2009 (Article 55(11).

3. OPINION

The SCCS is of the opinion that there are no new elements that would lead it to amend the opinion of the SCCNFP on CMR substances of 25 September 2001 (doc. n° SCCNFP/0474/01).

4. MINORITY OPINION

Not applicable

5. REFERENCES

Not applicable

Annex: List of substances newly classified as CMR 1, 2 and 3 (Commission Regulation 790/2009) and not yet covered by the Annex II of the Cosmetics Directive (76/768/EEC)

Chemical name	EC No	CAS No	Classification	Concentration Limits
O-isobutyl-*N*-ethoxy carbonylthiocarbamate	434-350-4	103122-66-3	R10 Carc. Cat. 2; R45 Muta. Cat. 2; R46 Xn; R22-48/22 R43 N; R51-53	
chlorpropham (ISO); isopropyl 3-chlorocarbanilate	202-925-7	101-21-3	Carc. Cat. 3; R40 Xn; R48/22 N; R51-53	
hydroxylammonium nitrate	236-691-2	13465-08-2	E; R2 Carc. Cat. 3; R40 T; R24 Xn; R22-48/22 Xi; R36/38 R43 N; R50	
A mixture of: 4,7-bis(mercaptomethyl)-3,6,9-trithia-1,11-undecanedithiol-; 4,8-bis(mercaptomethyl)-3,6,9-trithia-1,11-undecanedithiol; 5,7-bis(mercaptomethyl)-3,6,9-trithia-1,11-undecanedithiol	427-050-1	-	Repr. Cat. 3; R62 Xi; R38 R43 N; R50-53	
cobalt acetate	200-755-8	71-48-7	Carc. Cat. 2; R49 Muta. Cat. 3; R68 Repr. Cat. 2; R60 R42/43 N; R50-53	C ≥ 2.5 %: T, N; R49-60-42/43-68-50/53 1 % ≤ C < 2.5 %: T, N; R49-60-42/43-68-51/53 0.5 % ≤ C < 1 %: T, N; R49-60-51/53 0.25 % ≤ C < 0.5 %: T, N; R49-51/53 0.025 % ≤ C < 0.25 %: T; R49-52/53 0.01 % ≤ C < 0.025 %: T; R49
cobalt nitrate	233-402-1	10141-05-6	Carc. Cat. 2; R49 Muta. Cat. 3; R68 Repr. Cat. 2; R60 R42/43 N; R50-53	C ≥ 2.5 %: T, N; R49-60-42/43-68-50/53 1 % ≤ C < 2.5 %: T, N; R49-60-42/43-68-51/53 0.5 % ≤ C < 1 %: T, N; R49-60-51/53 0.25 % ≤ C < 0.5 %: T, N; R49-51/53 0.025 % ≤ C < 0.25 %: T; R49-52/53 0.01 % ≤ C < 0.025 %: T; R49

Chemical name	EC No	CAS No	Classification	Concentration Limits
cobalt carbonate	208-169-4	513-79-1	Carc. Cat. 2; R49 Muta. Cat. 3; R68 Repr. Cat. 2; R60 R42/43 N; R50-53	C ≥ 2.5 %: T, N; R49-60-42/43-68-50/53 1 % ≤ C < 2,5 %: T, N; R49-60-42/43-68-51/53 0,5 % ≤ C < 1 %: T, N; R49-60-51/53 0.25 % ≤ C < 0.5 %: T, N; R49-51/53 0.025 % ≤ C < 0.25 %: T; R49-52/53 0.01% ≤ C < 0.025 %: T; R49
nickel dichloride	231-743-0	7718-54-9	Carc. Cat. 1; R49 Muta. Cat. 3; R68 Repr. Cat. 2; R61 T; R23/25-48/23 Xi; R38 R42/43 N; R50-53	C ≥ 25%: T, N ; R49-61-23/25-38-42/43-48/23-68-50/53 20% ≤ C < 25%: T, N; R49-61-20/22-38-42/43-48/23-68-51/53 3% ≤ C < 20 %: T, N; R49-61-20/22-42/43-48/23-68-51/53 2.5 % ≤ C < 3 %: T, N; R49-61-42/43-48/23-68-51/53 1 % ≤ C < 2.5 %: T; R49-61-42/43-48/23-68-52/53 0.5 % ≤ C < 1 %: T; R49-61-43-48/20-52/53 0.25 % ≤ C < 0.5 %: T; R49-43-48/20-52/53 0.1 % ≤ C < 0.25 %: T; R49-43-48/20 0.01 % ≤ C < 0.1 %: Xi; R43
nickel dinitrate; [1] nitric acid, nickel salt [2]	236-068-5 [1] 238-076-4 [2]	13138-45-9 [1] 14216-75-2 [2]	O; R8 Carc. Cat. 1; R49 Muta. Cat. 3; R68 Repr. Cat. 2; R61 T; R48/23 Xn; R20/22 Xi; R38-41 R42/43 N; R50-53	C ≥ 25 %: T, N; R49-61-20/22-38-41-42/43-48/23-68-50/53 20 % ≤ C < 25 %: T, N; R49-61-38-41-42/43-48/23-68-51/53 10 % ≤ C < 20 %: T, N; R49-61-41-42/43-48/23-68-51/53 5 % ≤ C < 10 %: T, N; R49-61-36-42/43-48/23-68-51/53 2.5 % ≤ C < 5 %: T, N; R49-61-42/43-48/23-68-51/53 1 % ≤ C < 2.5 %: T; R49-61-42/43-48/23-68-52/53 0.5 % ≤ C < 1 %: T; R49-61-43-48/20-52/53 0.25 % ≤ C < 0.5 %: T; R49-43-48/20-52/53 0.1 % ≤ C < 0.25 %: T; R49-43-48/20 0.01 % ≤ C < 0.1 %: Xi; R43

Chemical name	EC No	CAS No	Classification	Concentration Limits
dibutyltin dichloride; (DBTC)	211-670-0	683-18-1	Mut. Cat. 3; R68 Repr. Cat. 2; R60-61 T+; R26 T; R25-48/25 C; R34 Xn; R21 N; R50-53	C ≥ 25 %: T+, C, N; R60-61-21-25-26-34-48/25-68-50/53 10 % ≤ C < 25 %: T+, C, N; R60-61-22-26-34-48/25-68-50/53 7 % ≤ C < 10 %: T+, N; R60-61-22-26-36/38-48/22-68-50/53 3 % ≤ C < 7 %: T, N; R60-61-22-23-36/38-48/22-68-50/53 2.5 % ≤ C < 3 %: T, N; R60-61-23-36/38-48/22-68-50/53 1 % ≤ C < 2.5 %: T, N; R60-61-23-36/38-48/22-68-51/53 0.5 % ≤ C < 1 %: T, N; R60-61-20-36/38-51/53 0.25 % ≤ C < 0.5 %: Xn, N; R20-36/38-51/53 0.1 % ≤ C < 0.25 %: Xn; R20-36/38-52/53 0.025 % ≤ C < 0.1 %: Xi; R36/38-52/53 0.01 % ≤ C < 0.025 %: Xi; R36/38
4,4'-bis(*N*-carbamoyl-4-methylbenzenesulfonamide)diphenylmethane	418-770-5	151882-81-4	Carc. Cat. 3; R40	
6-glycidyloxynapht-1-yl oxymethyloxirane	429-960-2	27610-48-6	Muta. Cat. 3; R68 Xn; R21 Xi; R38 R43 R52-53	
2-(2-aminoethylamino)ethanol (AEEA)	203-867-5	111-41-1	Repr. Cat. 2; R61 Repr. Cat. 3; R62 C; R34 R43	C ≥ 25 %: T; R61-34-43-62 10 % ≤ C < 25 %: T; R61-34-43-62 5 % ≤ C < 10 %: T; R61-36/37/38-43-62 1 % ≤ C < 5 %: T; R61-43 0.5 % ≤ C < 1 %: T; R61
1,2-diethoxyethane	211-076-1	629-14-1	F; R11 R19 Repr. Cat. 2; R61 Repr. Cat. 3; R62 Xi; R36	
(*E*)-3-[1-[4-[2-(dimethylamino)ethoxy]phenyl]-2-phenylbut-1-enyl]phenol	428-010-4	82413-20-5	Carc. Cat. 3; R40 Repr. Cat. 2; R60 R43 N; R50-53	
2-butyryl-3-hydroxy-5-thiocyclohexan-3-yl-cyclohex-2-en-1-one	425-150-8	94723-86-1	Repr.Cat.2; R60 Xn; R22 R43 R52-53	
profoxydim (ISO); 2-{(*EZ*)-1-[(2*RS*)-2-(4-chlorophenoxy)propoxyimino]butyl}-3-hydroxy-5-(thian-3-yl)cyclohex-2-en-1-one	-	139001-49-3	Carc. Cat. 3; R40 Repr. Cat. 3; R63 R43	

Chemical name	EC No	CAS No	Classification	Concentration Limits
tepraloxydim (ISO); (*RS*)-(*EZ*)-2-{1-[(2*E*)-3-chloroallyloxyimino]propyl}-3-hydroxy-5-perhydropyran-4-ylcyclohex-2-en-1-one	-	149979-41-9	Carc. Cat. 3; R40 Repr. Cat. 3; R62-63	
1,2-benzenedicarboxylic acid; di-C_{6-8}-branched alkylesters, C_7-rich	276-158-1	71888-89-6	Repr. Cat. 2; R61	
A mixture of: diester of 4,4'-methylenebis[2-(2-hydroxy-5-methylbenzyl)-3,6-dimethylphenol] and 6-diazo-5,6-dihydro-5-oxonaphthalene-1-sulfonic acid (1:2); triester of 4,4'-methylenebis[2-(2-hydroxy-5-methylbenzyl)-3,6-dimethylphenol] and 6-diazo-5,6-dihydro-5-oxonaphthalene-1-sulfonic acid (1:3)	427-140-9	-	Carc. Cat. 3; R40	
diammonium 1-hydroxy-2-(4-(4-carboxyphenylazo)-2,5-dimethoxyphenylazo)-7-amino-3-naphthalenesulfonate	422-670-7	-	Repr. Cat. 3; R62 T; R25 Xn; R48/22 N; R50-53	
3-oxoandrost-4-ene-17-β-carboxylic acid	414-990-0	302-97-6	Repr. Cat. 3; R62 R53	
(*Z*)-2-methoxymino-2-[2-(tritylamino)thiazol-4-yl]acetic acid	431-520-1	64485-90-1	E; R2 Carc. Cat. 3; R40 R52-53	
Mixture of: succinic acid; monopersuccinic acid; dipersuccinic acid; monomethyl ester of succinic acid; monomethyl ester of persuccinic acid; dimethyl succinate; glutaric acid; monoperglutaric acid; diperglutaric acid; monomethyl ester of glutaric acid; monomethyl ester of perglutaric acid; dimethyl glutarate; adipic acid; monoperadipic acid; diperadipic acid; monomethyl ester of adipic acid; monomethyl ester of peradipic acid; dimethyl adipate; hydrogen peroxide; methanol; water	432-790-1	-	Muta. Cat. 3; R68 C; R34 Xn; R20/21/22	
4-mesyl-2-nitrotoluene	430-550-0	1671-49-4	Repr. Cat. 3; R62 Xn; R22 R43 R52-53	

Chemical name	EC No	CAS No	Classification	Concentration Limits
chrysoidine; 4-(phenylazo)benzene-1,3-diamine	207-803-7	495-54-5	Muta. Cat. 3; R68 Xn; R22 Xi; R38 N; R50-53	
chrysoidine monohydrochloride; 4-phenylazophenylene-1,3-diamine monohydrochloride; [1] chrysoidine monoacetate; 4-(phenylazo)benzene-1,3-diamine monoacetate; [2] chrysoidine acetate; 4-(phenylazo)benzene-1,3-diamine acetate; [3] chrysoidine-*p*-dodecylbenzenesulfonate; dodecylbenzenesulfonic acid, compound with 4-(phenylazo)benzene-1,3-diamine (1:1); [4] chrysoidine dihydrochloride; 4-(phenylazo)benzene-1,3-diamine dihydrochloride; [5] chrysoidine sulfate; bis[4-(phenylazo)benzene-1,3-diamine] sulfate [6]	208-545-8 [1] 278-290-5 [2] 279-116-0 [3] 264-409-8 [4] 281-549-5 [5] 282-432-1 [6]	532-82-1 [1] 75660-25-2 [2] 79234-33-6 [3] 63681-54-9 [4] 83968-67-6 [5] 84196-22-5 [6]	Muta. Cat. 3; R68 Xn; R22 Xi; R38-41 N; R50-53	
chrysoidine C_{10-14}-alkyl derivatives and; benzenesulfonic acid, mono-C_{10-14}-alkyl derivatives, compounds with 4-(phenylazo)-1,3-benzenediamine; [1] chrysoidine compound with dibutylnaphthalene sulfonic acid; dibutylnaphthalenesulfonic acid, compound with 4-(phenylazo)benzene-1,3-diamine (1:1) [2]	286-946-7 [1] 304-236-8 [2]	85407-90-5 [1] 94247-67-3 [2]	Muta. Cat. 3; R68 Xn; R22 Xi; R38-41	
piperazine; [liquid]	203-808-3	110-85-0	Repr. Cat. 3; R62-63 C; R34 R42/43	
hydroxylamine ...% [≤ 55% in aqueous solution]	232-259-2	7803-49-8	R5 Carc. Cat. 3; R40 Xn; R21/22-48/22 Xi; R37/38-41 R43 N; R50	
mepanipyrim; 4-methyl-*N*-phenyl-6-(1-propynyl)-2-pyrimidinamine	-	110235-47-7	Carc. Cat. 3; R40 N; R50-53	
hydroxylammonium hydrogensulfate; hydroxylamine sulfate (1:1)	233-154-4	10046-00-1	E; R2 Carc. Cat. 3; R40 Xn; R21/22-48/22 Xi; R36/38 R43 N; R50	
(6*R-trans*)-1-((7-ammonio-2-carboxylato-8-oxo-5-thia-1-azabicyclo-[4.2.0]oct-2-en-3-yl)methyl)pyridinium iodide	423-260-0	100988-63-4	Muta. Cat. 3; R68 R43 N; R51-53	

Chemical name	EC No	CAS No	Classification	Concentration Limits
forchlorfenuron (ISO); 1-(2-chloro-4-pyridyl)-3-phenylurea	-	68157-60-8	Carc. Cat. 3; R40 N; R51-53	
cinidon ethyl (ISO); ethyl (*Z*)-2-chloro-3-[2-chloro-5-(cyclohex-1-ene-1,2-dicarboximido)phenyl]acrylate	-	142891-20-1	Carc. Cat. 3; R40 R43 N; R50-53	
N-[6,9-dihydro-9-[[2-hydroxy-1-(hydroxymethyl)ethoxy]methyl]-6-oxo-1*H*-purin-2-yl]acetamide	424-550-1	84245-12-5	Carc. Cat. 2; R45 Muta. Cat. 2; R46 Repr. Cat. 2; R60-61	
molybdenum trioxide	215-204-7	1313-27-5	Carc. Cat. 3; R40 Xi; R36/37	
2,2'-((3,3',5,5'-tetramethyl-(1,1'-biphenyl)-4,4'-diyl)-bis(oxymethylene))-bis-oxirane	413-900-7	85954-11-6	Carc. Cat. 3; R40 R43	
trifluralin (ISO) (containing < 0.5 ppm NPDA); α,α,α-trifluoro-2,6-dinitro-*N*,*N*-dipropyl-*p*-toluidine (containing < 0.5 ppm NPDA); 2,6-dinitro-*N*,*N*-dipropyl-4-trifluoromethylaniline (containing < 0.5 ppm NPDA); *N*,*N*-dipropyl-2,6-dinitro-4-trifluoromethylaniline (containing < 0.5 ppm NPDA)	216-428-8	1582-09-8	Carc. Cat. 3; R40 R43 N; R50-53	C ≥ 2.5 %: Xn, N; R40-43-50/53 1 % ≤ C < 2.5 %: Xn, N; R40-43-51/53 0.25 % ≤ C < 1 %: N; R51/53 0.025 % ≤ C < 0.25 %: R52/53
piperazine; [solid]	203-808-3	110-85-0	Repr. Cat. 3; R62-63 C; R34 R42/43	
hydroxylamine ....% [> 55% in aqueous solution]	232-259-2	7803-49-8	E; R2 Carc. Cat. 3; R40 Xn; R21/22-48/22 Xi; R37/38-41 R43 N; R50	
hydroxylammonium chloride; hydroxylamine hydrochloride; [1] bis(hydroxylammonium) sulfate; hydroxylamine sulfate (2:1) [2]	226-798-2 [1] 233-118-8 [2]	5470-11-1 [1] 10039-54-0 [2]	E; R2 Carc. Cat. 3; R40 Xn; R21/22-48/22 Xi; R36/38 R43 N; R50	
4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate; [1] 2,2'-methylenediphenyl diisocyanate; diphenylmethane-2,2'-diisocyanate; [2] *o*-(*p*-isocyanatobenzyl)phenyl isocyanate; diphenylmethane-2,4'-diisocyanate; [3] methylenediphenyl diisocyanate [4]	202-966-0 [1] 219-799-4 [2] 227-534-9 [3] 247-714-0 [4]	101-68-8 [1] 2536-05-2 [2] 5873-54-1 [3] 26447-40-5 [4]	Carc. Cat. 3; R40 Xn; R20-48/20 Xi; R36/37/38 R42/43	C ≥ 25 %: Xn; R20-36/37/38-40-42/43-48/20 10 % ≤ C < 25 %: Xn; R36/37/38-40-42/43-48/20 5 % ≤ C < 10 %: Xn; R36/37/38-40-42/43 1 % ≤ C < 5 %: Xn; R40-42/43 0.1 % ≤ C < 1 %: Xn; R42

Chemical name	EC No	CAS No	Classification	Concentration Limits
Naphtha (petroleum), light alkylate; Low boiling point modified naphtha; [A complex combination of hydrocarbons produced by distillation of the reaction products of isobutane with monoolefinic hydrocarbons usually ranging in carbon numbers from C_3 through C_5. It consists of predominantly branched chain saturated hydrocarbons having carbon numbers predominantly in the range of C_7 through C_{10} and boiling in the range of approximately 90°C to 160°C (194°F to 320°F).]	265-068-8	64741-66-8	Carc. Cat. 2; R45 Muta. Cat. 2; R46 Xn; R65	C ≥ 10 %: T; R45-46-65 0.1% ≤ C < 10 %: T; R45-46
mancozeb (ISO); manganese ethylenebis(dithiocarbamate) (polymeric) complex with zinc salt	-	8018-01-7	Repr. Cat. 3; R63 R43 N; R50	C ≥ 5 %: Xn, N; R43-63-50 2.5 ≤ C < 5%: Xi, N; R43-50 1% ≤ C < 2.5%: Xi; R43
maneb (ISO); manganese ethylenebis(dithiocarbamate) (polymeric)	235-654-8	12427-38-2	Repr. Cat. 3; R63 Xn; R20 Xi; R36 R43 N; R50-53	C ≥ 25 %: Xn, N; R20-36-43-63-50/53 20 % ≤ C < 25 %: Xn, N; R36-43-63-50/53 5 % ≤ C < 20 %: Xn, N; R43-63-50/53 2.5 % ≤ C < 5 %: Xi, N; R43-50/53 1 % ≤ C < 2.5 %: Xi, N; R43-51/53 0.25 % ≤ C < 1 %: N; R51/53 0.025 % ≤ C < 0.25 %: R52/53
benfuracarb (ISO); ethyl *N*-[2,3-dihydro-2,2-dimethylbenzofuran-7-yloxycarbonyl(methyl)aminothio]-*N*-isopropyl- β-alaninate	-	82560-54-1	Repr. Cat. 3; R62 T; R23 Xn; R22 N; R50-53	
phoxim (ISO); α-(diethoxyphosphinothioylimino) phenylacetonitrile	238-887-3	14816-18-3	Repr. Cat. 3; R62 Xn; R22 R43 N; R50-53	C ≥ 25 %: Xn, N; R22-43-62-50/53 5 % ≤ C < 25 %: Xn, N; R43-62-50/53 1 % ≤ C < 5 %: Xi, N; R43-50/53 0.025 % ≤ C < 1 %: N; R50/53 0.0025 % ≤ C < 0.025 %: N; R51/53 0.00025 % ≤ C < 0.0025 %: R52/53
glufosinate ammonium (ISO); ammonium 2-amino-4-(hydroxymethylphosphinyl)butyrate	278-636-5	77182-82-2	Repr. Cat. 2; R60 Repr. Cat. 3; R63 Xn; R20/21/22-48/20/22	
furfuryl alcohol	202-626-1	98-00-0	Carc. Cat. 3; R40 T; R23 Xn; R21/22-48/20 Xi; R36/37	

Chemical name	EC No	CAS No	Classification	Concentration Limits
1,2-epoxy-4-epoxyethylcyclohexane; 4-vinylcyclohexene diepoxide	203-437-7	106-87-6	Carc. Cat. 3; R40 T; R23/24/25	C ≥ 1 %: T; R23/24/25-40 0.1 % ≤ C < 1 %: Xn; R20/21/22
N-methyl-2-pyrrolidone; 1-methyl-2-pyrrolidone	212-828-1	872-50-4	Repr. Cat. 2; R61 Xi; R36/37/38	C ≥ 10 %: T; R61-36/37/38 5 % ≤ C < 10 %: T; R61
A mixture of: Ca salicylates (branched C_{10-14} and C_{18-30} alkylated); Ca phenates (branched C_{10-14} and C_{18-30} alkylated); Ca sulfurised phenates (branched C_{10-14} and C_{18-30} alkylated)	415-930-6	-	Repr. Cat. 3; R62 R43	
N,*N*'-diacetylbenzidine	210-338-2	613-35-4	Carc. Cat. 2; R45 Muta. Cat. 3; R68 Xn; R20/21/22	
cyclohexylamine	203-629-0	108-91-8	R10 Repr. Cat. 3; R62 Xn; R21/22 C; R34	C ≥ 25 %: C; R21/22-34-62 10 % ≤ C < 25 %: C; R34-62 5 % ≤ C < 10 %: Xn; R36/38-62 2% ≤ C < 5%: Xi; R36/38
hydroxylammonium hydrogensulfate; hydroxylamine sulfate(1:1); [1] hydroxylamine phosphate; [2] hydroxylamine dihydrogenphosphate; [3] hydroxylamine 4-methylbenzenesulfonate [4]	233-154-4 [1] 244-077-0 [2] 242-818-2 [3] 258-872-5 [4]	10046-00-1 [1] 20845-01-6 [2] 19098-16-9 [3] 53933-48-5 [4]	E; R2 Carc. Cat. 3; R40 Xn; R21/22-48/22 Xi; R36/38 R43 N; R50	
Refractory Ceramic Fibres, Special Purpose Fibres, with the exception of those specified elsewhere in this Annex; [Man-made vitreous (silicate) fibres with random orientation with alkaline oxide and alkali earth oxide ($Na_2O+K_2O+CaO+MgO+BaO$) content less or equal to 18 % by weight]	-	-	Carc. Cat. 2; R49	
O-hexyl-*N*-ethoxycarbonylthiocarbamate	432-750-3	-	Carc. Cat. 2; R45 Muta. Cat. 2; R46 Xn; R22-48/22 R43 N; R51-53	
(4-ethoxyphenyl)(3-(4-fluoro-3-phenoxyphenyl)propyl)dimethyl silane	405-020-7	105024-66-6	Repr.Cat.2; R60 N; R50-53	C ≥ 0.5%: T, N; R60-50/53 0.025% ≤ C < 0.5%: N; R50/53 0.0025% ≤ C < 0.025%: N; R51/53 0.00025% ≤ C < 0.0025%: R52/53
mixture of: dimethyl (2-(hydroxymethylcarbamoyl)ethyl)phosphonate; diethyl (2-(hydroxymethylcarbamoyl)ethyl)phosphonate; methyl ethyl (2-(hydroxymethylcarbamoyl)ethyl)phosphonate	435-960-3	-	Carc.Cat.2; R45 Muta.Cat.2; R46 R43	

Chemical name	EC No	CAS No	Classification	Concentration Limits
(4-phenylbutyl)phosphinic acid	420-450-5	86552-32-1	Carc.Cat.3; R40 Xi; R41	
potassium titanium oxide ($K_2Ti_6O_{13}$)	432-240-0	12056-51-8	Carc.Cat.3; R40	
nickel matte	273-749-6	69012-50-6	Carc. Cat. 1; R49 T; R48/23 R43 N; R50-53	
slimes and sludges, copper electrolytic refining, decopperised, nickel sulfate	295-859-3	92129-57-2	Carc. Cat. 1; R49 Muta. Cat. 3; R68 Repr. Cat. 2; R61 T; R48/23 Xn; R20/22 Xi; R38 R42/43 N; R50-53	C ≥ 25 %: T, N; R49-61-20/22-38-42/43-48/23-68-50/53 20 % ≤ C < 25 %: T, N; R49-61-38-42/43-48/23-68-51/53 2.5 % ≤ C < 20 %: T, N; R49-61-42/43-48/23-68-51/53 1 % ≤ C < 2.5 %: T; R49-61-42/43-48/23-68-52/53 0.5 % ≤ C < 1 %: T; R49-61-43-48/20-52/53 0.25 % ≤ C < 0.5 %: T; R49-43-48/20-52/53 0.1 % ≤ C < 0.25 %: T; R49-43-48/20 0.01 % ≤ C < 0.1 %: Xi; R43
slimes and sludges, copper electrolyte refining, decopperised	305-433-1	94551-87-8	Carc. Cat. 1; R49 Muta. Cat. 3; R68 Repr. Cat. 1; R61 Repr. Cat. 3; R62 T; R48/23 R42/43 N; R50-53	
nickel diperchlorate; perchloric acid, nickel(II) salt	237-124-1	13637-71-3	Carc. Cat. 1; R49 Muta. Cat. 3; R68 Repr. Cat. 2; R61 T; R48/23 C; R34 R42/43 N; R50-53	C ≥ 25 %: T, N; R49-61-34-42/43-48/23-68-50/53 5 % ≤ C < 25 %: T, N; R49-61-34-42/43-48/23-68-51/53 2.5 % ≤ C < 5 %: T, N; R49-61-36/38-42/43-48/23-68-51/53 1 % ≤ C < 2.5 %: T; R49-61-36/38-42/43-48/23-68-52/53 0.5 % ≤ C < 1 %: T; R49-61-43-48/20-52/53 0.25 % ≤ C < 0.5 %: T; R49-43-48/20-52/53 0.1 % ≤ C < 0.25 %: T; R49-43-48/20 0.01 % ≤ C < 0.1 %: Xi; R43
nickel dipotassium bis(sulfate); [1] diammonium nickel bis(sulfate) [2]	237-563-9 [1] 239-793-2 [2]	13842-46-1 [1] 15699-18-0 [2]	Carc. Cat. 1; R49 Muta. Cat. 3; R68 Repr. Cat. 2; R61 T; R48/23 Xn; R20/22 R42/43 N; R50-53	C ≥ 25 %: T, N; R49-61-20/22-42/43-48/23-68-50/53 2.5 % ≤ C < 25 %: T, N; R49-61-42/43-48/23-68-51/53 1 % ≤ C < 2.5 %: T; R49-61-42/43-48/23-68-52/53 0.5 % ≤ C < 1 %: T; R49-61-43-48/20-52/53 0.25 % ≤ C < 0.5 %: T; R49-43-48/20-52/53 0.1 % ≤ C < 0.25 %: T; R49-43-48/20 0.01 % ≤ C < 0.1 %: Xi; R43

Chemical name	EC No	CAS No	Classification	Concentration Limits
nickel bis(sulfamidate); nickel sulfamate	237-396-1	13770-89-3	Carc. Cat. 1; R49 Muta. Cat. 3; R68 Repr. Cat. 2; R61 T; R48/23 R42/43 N; R50-53	C ≥ 25 %: T, N; R49-61-42/43-48/23-68-50/53 2.5 % ≤ C < 25 %: T, N; R49-61-42/43-48/23-68-51/53 1 % ≤ C < 2.5 %: T; R49-61-42/43-48/23-68-52/53 0.5 % ≤ C < 1 %: T; R49-61-43-48/20-52/53 0.25 % ≤ C < 0.5 %: T; R49-43-48/20-52/53 0.1 % ≤ C < 0.25 %: T; R49-43-48/20 0.01 % ≤ C < 0.1 %: Xi; R43
nickel bis(tetrafluoroborate)	238-753-4	14708-14-6	Carc. Cat. 1; R49 Muta. Cat. 3; R68 Repr. Cat. 2; R61 T; R48/23 R42/43 N; R50-53	C ≥ 25 %: T, N; R49-61-42/43-48/23-68-50/53 2.5 % ≤ C < 25 %: T, N; R49-61-42/43-48/23-68-51/53 1 % ≤ C < 2.5 %: T; R49-61-42/43-48/23-68-52/53 0.5 % ≤ C < 1 %: T; 49-61-43-48/20-52/53 0.25 % ≤ C < 0.5 %: T; R49-43-48/20-52/53 0.1 % ≤ C < 0.25 %: T; R49-43-48/20 0.01 % ≤ C < 0.1 %: Xi; R43
nickel diformate; [1] formic acid, nickel salt; [2] formic acid, copper nickel salt [3]	222-101-0 [1] 239-946-6 [2] 268-755-0 [3]	3349-06-2 [1] 15843-02-4 [2] 68134-59-8 [3]	Carc. Cat. 1; R49 Muta. Cat. 3; R68 Repr. Cat. 2; R61 T; R48/23 R42/43 N; R50-53	C ≥ 25 %: T. N; R49-61-42/43-48/23-68-50/53 2.5 % C < 25 %: T. N; R49-61-42/43-48/23-68-51/53 1 % ≤ C < 2.5%: T; R49-61-42/43-48/23-68-52/53 0.5 % ≤ C < 1 %: T; R49-61-43-48/20-52/53 0.25 % ≤ C < 0.5 %: T; R49-43-48/20-52/53 0.1 % ≤ C < 0.25 %: T; R49-43-48/20 0.01 % ≤ C 0.1 %: Xi; R43
nickel di(acetate); [1] nickel acetate [2]	206-761-7 [1] 239-086-1 [2]	373-02-4 [1] 14998-37-9 [2]	Carc. Cat. 1; R49 Muta. Cat. 3; R68 Repr. Cat. 2; R61 T; R48/23 Xn; R20/22 R42/43 N; R50-53	C ≥ 25 %: T. N; R49-61-20/22-42/43-48/23-68-50/53 2.5 % ≤ C < 25 %: T. N: R49-61-42/43-48/23-68-51/53 1 % ≤ C < 2.5 %: T; R49-61-42/43-48/23-68-52/53 0.5 % ≤ C < 1 %: T; R49-61-43-48/20-52/53 0.25 % ≤ C 0.5 %: T; R49-43-48/20-52/53 0.1 % ≤ C < 0.25 %: T; R49-43-48/20 0.01 % ≤ C < 0.1 %: Xi; R43

Chemical name	EC No	CAS No	Classification	Concentration Limits
nickel dibenzoate	209-046-8	553-71-9	Carc. Cat. 1; R49 Muta. Cat. 3; R68 Repr. Cat. 2; R61 T; R48/23 R42/43 N; R50-53	C ≥ 25 %: T. N; R49-61-42/43-48/23-68-50/53 2.5 % ≤ C < 25 %: T. N; R49-61-42/43-48/23-68-51/53 1 % ≤ C < 2.5 %: T; R49-61-42/43-48/23-68-52/53 0.5 % ≤ C < 1 %: T; R49-61-43-48/20-52/53 0.25 % ≤ C < 0.5 %: T; R49-43-48/20-52/53 0.1 % ≤C < 0.25 %: T; R49-43-48/20 0.01 % ≤ C < 0.1 %: Xi; R43
nickel bis(4-cyclohexylbutyrate)	223-463-2	3906-55-6	Carc. Cat. 1; R49 Muta. Cat. 3; R68 Repr. Cat. 2; R61 T; R48/23 R42/43 N; R50-53	C ≥ 25 %: T. N; R49-61-42/43-48/23-68-50/53 2.5 % ≤ C < 25 %: T. N; R49-61-42/43-48/23-68-51/53 1 % ≤ C < 2.5 %: T; R49-61-42/43-48/23-68-52/53 0.5 % ≤ C < 1 %: T; R49-61-43-48/20-52/53 0.25 % ≤ C < 0.5 %: T; R49-43-48/20-52/53 0.1 % ≤ C < 0.25 %: T; R49-43-48/20 0.01 % ≤ C < 0.1 %: Xi; R43
nickel(II) stearate; nickel(II) octadecanoate	218-744-1	2223-95-2	Carc. Cat. 1; R49 Muta. Cat. 3; R68 Repr. Cat. 2; R61 T; R48/23 R42/43 N; R50-53	C ≥ 25 %: T. N; R49-61-42/43-48/23-68-50/53 2.5 % ≤ C < 25 %: T. N; R49-61-42/43-48/23-68-51/53 1 % ≤ C < 2.5 %: T; R49-61-42/43-48/23-68-52/53 0.5 % ≤ C < 1 %: T; R49-61-43-48/20-52/53 0.25 % ≤ C < 0.5 %: T; R49-43-48/20-52/53 0.1 % ≤ C < 0.25 %: T; R49-43-48/20 0.01 % ≤ C < 0.1 %: Xi; R43
nickel dilactate	-	16039-61-5	Carc. Cat. 1; R49 Muta. Cat. 3; R68 Repr. Cat. 2; R61 T; R48/23 R42/43 N; R50-53	C ≥ 25 %: T. N; R49-61-42/43-48/23-68-50/53 2.5 % ≤ C < 25 %: T. N; R49-61-42/43-48/23-68-51/53 1 % ≤ C < 2.5 %: T; R49-61-42/43-48/23-68-52/53 0.5 % ≤ C < 1 %: T; R49-61-43-48/20-52/53 0.25 % ≤ C < 0.5 %: T; R49-43-48/20-52/53 0.1 % ≤ C < 0.25 %: T; R49-43-48/20 0.01 % ≤ C < 0.1 %: Xi; R43

Chemical name	EC No	CAS No	Classification	Concentration Limits
nickel(II) octanoate	225-656-7	4995-91-9	Carc. Cat. 1; R49 Muta. Cat. 3; R68 Repr. Cat 2; R61 T; R48/23 C; R35 R42/43 N; R50-53	C ≥ 25 %: T. C. N; R49-61-35-42/43-48/23-68-50/53 10 % ≤ C < 25 %: T. C. N; R49-61-35-42/43-48/23-68-51/53 5 % ≤ C < 10 %: T. N; R49-61-34-42/43-48/23-68-51/53 2.5 % ≤ C < 5 %: T. N; R49-61-36/38-42/43-48/23-68-51/53 1 % ≤ C < 2.5 %: T; R49-61-36/38-42/43-48/23-68-52/53 0.5 % ≤ C < 1 %: T; R49-61-43-48/20-52/53 0.25 % ≤ C < 0.5 %: T; R49-43-48/20-52/53 0.1 % ≤ C < 0.25 %: T; R49-43-48/20 0.01 % ≤ C < 0.1 %: Xi; R43
nickel difluoride; [1] nickel dibromide; [2] nickel diiodide; [3] nickel potassium fluoride [4]	233-071-3 [1] 236-665-0 [2] 236-666-6 [3] - [4]	10028-18-9 [1] 13462-88-9 [2] 13462-90-3 [3] 11132-10-8 [4]	Carc. Cat. 1; R49 Muta. Cat. 3; R68 Repr. Cat. 2; R61 T; R48/23 R42/43 N; R50-53	C ≥ 25 %: T. N; R49-61-42/43-48/23-68-50/53 2.5 % ≤ C < 25 %: T. N; R49-61-42/43-48/23-68-51/53 1 % ≤ C < 2.5 %: T; 49-61-42/43-48/23-68-52/53 0.5 % ≤ C < 1 %: T; R49-61-43-48/20-52/53 0.25 % ≤ C < 0.5 %: T; 49-43-48/20-52/53 0.1 % ≤ C < 0.25 %: T; R49-43-48/20 0.01 % ≤ C < 0.1 %: Xi; R43
nickel hexafluorosilicate	247-430-7	26043-11-8	Carc. Cat. 1; R49 Muta. Cat. 3; R68 Repr. Cat. 2; R61 T; R48/23 R42/43 N; R50-53	C ≥ 25 %: T. N; R49-61-42/43-48/23-68-50/53 2.5 % ≤ C < 25 %: T. N; R49-61-42/43-48/23-68-51/53 1 % ≤ C < 2.5 %: T; R49-61-42/43-48/23-68-52/53 0.5 % ≤ C < 1 %: T; R49-61-43-48/20-52/53 0.25 % ≤ C < 0.5 %: T; R49-43-48/20-52/53 0.1 % ≤ C < 0.25 %: T; R49-43-48/20 0.01 % ≤ C < 0.1 %: Xi; R43
nickel selenate	239-125-2	15060-62-5	Carc. Cat. 1; R49 Muta. Cat. 3; R68 Repr. Cat. 2; R61 T; R48/23 R42/43 N; R50-53	C ≥ 25 %: T. N; R49-61-42/43-48/23-68-50/53 2.5 % ≤ C < 25 %: T. N; R49-61-42/43-48/23-68-51/53 1 % ≤ C < 2.5 %: T; R49-61-42/43-48/23-68-52/53 0.5 % ≤ C < 1 %: T; R49-61-43-48/20-52/53 0.25 % ≤ C < 0.5 %: T; R49-43-48/20-52/53 0.1 % ≤ C < 0.25 %: T; R49-43-48/20 0.01 % ≤ C < 0.1 %: Xi; R43

Chemical name	EC No	CAS No	Classification	Concentration Limits
nickel hydrogen phosphate; [1] nickel bis(dihydrogen phosphate); [2] trinickel bis(orthophosphate); [3] dinickel diphosphate; [4] nickel bis(phosphinate); [5] nickel phosphinate; [6] phosphoric acid, calcium nickel salt; [7] diphosphoric acid, nickel(II) salt [8]	238-278-2 [1] 242-522-3 [2] 233-844-5 [3] 238-426-6 [4] 238-511-8 [5] 252-840-4 [6] - [7] - [8]	14332-34-4 [1] 18718-11-1 [2] 10381-36-9 [3] 14448-18-1 [4] 14507-36-9 [5] 36026-88-7 [6] 17169-61-8 [7] 19372-20-4 [8]	Carc. Cat. 1; R49 T; R48/23 R42/43 N; R50-53	
diammonium nickel hexacyanoferrate	-	74195-78-1	Carc. Cat. 1; R49 T; R48/23 R42/43 N; R50-53	
nickel dicyanide	209-160-8	557-19-7	Carc. Cat. 1; R49 T; R48/23 R42/43 R32 N; R50-53	
nickel chromate	238-766-5	14721-18-7	Carc. Cat. 1; R49 T; R48/23 R42/43 N; R50-53	
nickel(II) silicate; [1] dinickel orthosilicate; [2] nickel silicate (3:4); [3] silicic acid, nickel salt; [4] trihydrogen hydroxybis[orthosilicato(4-)]trinickelate(3-) [5]	244-578-4 [1] 237-411-1 [2] 250-788-7 [3] 253-461-7 [4] 235-688-3 [5]	21784-78-1 [1] 13775-54-7 [2] 31748-25-1 [3] 37321-15-6 [4] 12519-85-6 [5]	Carc. Cat. 1; R49 T; R48/23 R43 N; R50-53	
dinickel hexacyanoferrate	238-946-3	14874-78-3	Carc. Cat. 1; R49 T; R48/23 R43 N; R50-53	
trinickel bis(arsenate); nickel(II) arsenate	236-771-7	13477-70-8	Carc. Cat. 1; R45 T; R48/23 R43 N; R50-53	
nickel oxalate; [1] oxalic acid, nickel salt [2]	208-933-7 [1] 243-867-2 [2]	547-67-1 [1] 20543-06-0 [2]	Carc. Cat. 1; R49 T; R48/23 R43 N: R50-53	
nickel telluride	235-260-6	12142-88-0	Carc. Cat. 1; R49 T; R48/23 R43 N; R50-53	
trinickel tetrasulfide	-	12137-12-1	Carc. Cat. 1; R49 T; R48/23 R43 N; R50-53	

Chemical name	EC No	CAS No	Classification	Concentration Limits
trinickel bis(arsenite)	-	74646-29-0	Carc. Cat. 1; R49 T; R48/23 R43 N; R50-53	
cobalt nickel gray periclase; C.I. Pigment Black 25; C.I. 77332; [1] cobalt nickel dioxide; [2] cobalt nickel oxide [3]	269-051-6 [1] 261-346-8 [2] - [3]	68186-89-0 [1] 58591-45-0 [2] 12737-30-3 [3]	Carc. Cat. 1; R49 T; R48/23 R43	
nickel tin trioxide; nickel stannate	234-824-9	12035-38-0	Carc. Cat. 1; R49 T; R48/23 R43	
nickel triuranium decaoxide	239-876-6	15780-33-3	Carc. Cat. 1; R49 T; R48/23 R43	
nickel dithiocyanate	237-205-1	13689-92-4	Carc. Cat. 1; R49 Muta. Cat. 3;R68 Repr. Cat. 2; R61 T; R48/23 R42/43 R32 N; R50-53	C ≥ 25 %: T. N; R49-61-42/43-48/23-68-50/53 2.5 % ≤ C < 25 %: T. N; R49-61-42/43-48/23-68-51/53 1 % ≤ C < 2.5 %: T; R49-61-42/43-48/23-68-52/53 0.5 % ≤ C < 1 %: T; R49-61-43-48/20-52/53 0.25 % ≤ C < 0.5 %: T: R49-61-43-48/20-52/53 0.1 % ≤ C < 0.25 %: T; R49-43-48/20 0.01 % ≤ C < 0.1 %: Xi; R43
nickel dichromate	239-646-5	15586-38-6	Carc. Cat. 1; R49 Muta. Cat. 3; R68 Repr. Cat. 2; R61 T; R48/23 R42/43 N; R50-53	C ≥ 25 %: T. N; R49-61-42/43-48/23-68-50/53 2.5 % ≤ C < 25 %: T. N; R49-61-42/43-48/23-68-51/53 1 % ≤ C < 2.5 %: T; R49-61-42/43-48/23-68-52/53 0.5 % ≤ C < 1 %: T; 49-61-43-48/20-52/53 0.25 % ≤ C < 0.5 %: T; R49-43-48/20-52/53 0.1% ≤ C < 0.25 %: T; R49-43-48/20 0.01 % ≤ C 0.1 %: Xi; R43
nickel(II) selenite	233-263-7	10101-96-9	Carc. Cat. 1; R49 T; R48/23 R42/43 N; R50-53	
nickel selenide	215-216-2	1314-05-2	Carc. Cat. 1; R49 T; R48/23 R43 N; R50-53	
silicic acid, lead nickel salt	-	68130-19-8	Carc. Cat. 1: R49 Repr. Cat. 1: R61 Repr. Cat. 3; R62 T; R48/23 R43 N; R50-53	

Chemical name	EC No	CAS No	Classification	Concentration Limits
nickel diarsenide; [1] nickel arsenide [2]	235-103-1 [1] 248-169-1 [2]	12068-61-0 [1] 27016-75-7 [2]	Carc. Cat. 1; R49 T; R48/23 R43 N; R50-53	
nickel barium titanium primrose priderite; C.I. Pigment Yellow 157; C.I. 77900	271-853-6	68610-24-2	Carc. Cat. 1: R49 T; R48/23 R43	
nickel dichlorate; [1] nickel dibromate; [2] ethyl hydrogen sulfate, nickel(II) salt [3]	267-897-0 [1] 238-596-1 [2] 275-897-7 [3]	67952-43-6 [1] 14550-87-9 [2] 71720-48-4 [3]	Carc. Cat. 1; R49 Muta. Cat. 3; R68 Repr. Cat. 2; R61 T; R48/23 R42/43 N; R50-53	C ≥ 25 %: T. N; R49-61-42/43-48/23-68-50/53 2.5 % ≤ C < 25 %: T. N: R49-61-42/43-48/23-68-51/53 1 % ≤ C < 2.5 %: T: R49-61-42/43-48/23-68-52/53 0.5 % ≤ C < 1 %: T; R49-61-43-48/20-52/53 0.25 % ≤ C < 0.5 %: T; R49-43-48/20-52/53 0.1 % ≤ C < 0.25 %: T: R49-43-48/20 0.01 % ≤ C < 0.1 %: Xi; R43

Chemical name	EC No	CAS No	Classification	Concentration Limits
nickel(II) trifluoroacetate; [1] nickel(II) propionate; [2] nickel bis(benzenesulfonate); [3] nickel(II) hydrogen citrate; [4] citric acid, ammonium nickel salt; [5] citric acid, nickel salt; [6] nickel bis(2-ethylhexanoate); [7] 2-ethylhexanoic acid, nickel salt; [8] dimethylhexanoic acid nickel salt; [9] nickel(II) isooctanoate; [10] nickel isooctanoate; [11] nickel bis(isononanoate); [12] nickel(II) neononanoate; [13] nickel(II) isodecanoate; [14] nickel(II) neodecanoate; [15] neodecanoic acid, nickel salt; [16] nickel(II) neoundecanoate; [17] bis(D-gluconato-O^1,O^2)nickel; [18] nickel 3,5-bis(*tert*-butyl)-4-hydroxybenzoate (1:2); [19] nickel(II) palmitate; [20] (2-ethylhexanoato-*O*)(isononanoato-*O*)nickel; [21] (isononanoato-*O*)(isooctanoato-*O*)nickel; [22] (isooctanoato-*O*)(neodecanoato-*O*)nickel; [23] (2-ethylhexanoato-*O*)(isodecanoato-*O*)nickel; [24] (2-ethylhexanoato-*O*)(neodecanoato-*O*)nickel; [25] (isodecanoato-*O*)(isooctanoato-*O*)nickel; [26] (isodecanoato-*O*)(isononanoato-*O*)nickel; [27] (isononanoato-*O*)(neodecanoato-*O*)nickel; [28] fatty acids, C_{6-19}-branched, nickel salts; [29] fatty acids, C_{8-18} and C_{18}-unsaturated, nickel salts; [30] 2,7-naphthalenedisulfonic acid, nickel(II) salt; [31]	240-235-8 [1] 222-102-6 [2] 254-642-3 [3] 242-533-3 [4] 242-161-1 [5] 245-119-0 [6] 224-699-9 [7] 231-480-1 [8] 301-323-2 [9] 249-555-2 [10] 248-585-3 [11] 284-349-6 [12] 300-094-6 [13] 287-468-1 [14] 287-469-7 [15] 257-447-1 [16] 300-093-0 [17] 276-205-6 [18] 258-051-1 [19] 237-138-8 [20] 287-470-2 [21] 287-471-8 [22] 284-347-5 [23] 284-351-7 [24] 285-698-7 [25] 285-909-2 [26] 284-348-0 [27] 287-592-6 [28] 294-302-1 [29] 283-972-0 [30] - [31]	16083-14-0 [1] 3349-08-4 [2] 39819-65-3 [3] 18721-51-2 [4] 18283-82-4 [5] 22605-92-1 [6] 4454-16-4 [7] 7580-31-6 [8] 93983-68-7 [9] 29317-63-3 [10] 27637-46-3 [11] 84852-37-9 [12] 93920-10-6 [13] 85508-43-6 [14] 85508-44-7 [15] 51818-56-5 [16] 93920-09-3 [17] 71957-07-8 [18] 52625-25-9 [19] 13654-40-5 [20] 85508-45-8 [21] 85508-46-9 [22] 84852-35-7 [23] 84852-39-1 [24] 85135-77-9 [25] 85166-19-4 [26] 84852-36-8 [27] 85551-28-6 [28] 91697-41-5 [29] 84776-45-4 [30] 72319-19-8 [31]	Carc. Cat. 1; R49 Muta. Cat. 3; R68 Repr. Cat. 2; R61 T; R48/23 R42/43 N; R50-53	C ≥ 25 %: T. N; R49-61-42/43-48/23-68-50/53 2.5 % ≤ C < 25 %: T. N; R49-61-42/43-48/23-68-51/53 1 % ≤ C < 2.5 %: T; R49-61-42/43-48/23-68-52/53 0.5 % ≤ C < 1 %: T; R49-61-43-48/20-52/53 0.25 % ≤ C < 0.5 %: T; R49-43-48/20-52/53 0.1 % ≤ C < 0.25 %: T; R49-43-48/20 0.01 % ≤ C < 0.1 %: Xi; R43

Chemical name	EC No	CAS No	Classification	Concentration Limits
nickel(II) sulfite; [1] nickel tellurium trioxide; [2] nickel tellurium tetraoxide; [3] molybdenum nickel hydroxide oxide phosphate [4]	231-827-7 [1] 239-967-0 [2] 239-974-9 [3] 268-585-7 [4]	7757-95-1 [1] 15851-52-2 [2] 15852-21-8 [3] 68130-36-9 [4]	Carc. Cat. 1; R49 T; R48/23 R42/43 N; R50-53	
nickel boride (NiB); [1] dinickel boride; [2] trinickel boride; [3] nickel boride; [4] dinickel silicide; [5] nickel disilicide; [6] dinickel phosphide; [7] nickel boron phosphide [8]	234-493-0 [1] 234-494-6 [2] 234-495-1 [3] 235-723-2 [4] 235-033-1 [5] 235-379-3 [6] 234-828-0 [7] - [8]	12007-00-0 [1] 12007-01-1 [2] 12007-02-2 [3] 12619-90-8 [4] 12059-14-2 [5] 12201-89-7 [6] 12035-64-2 [7] 65229-23-4 [8]	Carc. Cat. 1; R49 T; R48/23 R43 N; R50-53	
dialuminium nickel tetraoxide; [1] nickel titanium trioxide; [2] nickel titanium oxide; [3] nickel divanadium hexaoxide; [4] cobalt dimolybdenum nickel octaoxide; [5] nickel zirkonium trioxide; [6] molybdenum nickel tetraoxide; [7] nickel tungsten tetraoxide; [8] olivine, nickel green; [9] lithium nickel dioxide; [10] molybdenum nickel oxide; [11]	234-454-8 [1] 234-825-4 [2] 235-752-0 [3] 257-970-5 [4] 268-169-5 [5] 274-755-1 [6] 238-034-5 [7] 238-032-4 [8] 271-112-7 [9] - [10] - [11]	12004-35-2 [1] 12035-39-1 [2] 12653-76-8 [3] 52502-12-2 [4] 68016-03-5 [5] 70692-93-2 [6] 14177-55-0 [7] 14177-51-6 [8] 68515-84-4 [9] 12031-65-1 [10] 12673-58-4 [11]	Carc. Cat. 1; R49 T; R48/23 R43	
cobalt lithium nickel oxide	442-750-5	-	Carc. Cat. 1; R49 T+; R26 T; R48/23 R43 N; R50-53	
2,3-epoxypropyltrimethylammonium chloride ...%; glycidyl trimethylammonium chloride ...%	221-221-0	3033-77-0	Carc. Cat. 2; R45 Muta. Cat. 3; R68 Repr. Cat. 3; R62 Xn; R21/22-48/22 Xi; R41 R43 R52-53	
1-(2-amino-5-chlorophenyl)-2,2,2-trifluoro-1,1-ethanediol, hydrochloride; [containing ≥ 0.1 % 4-chloroaniline (EC No 203-401-0)]	433-580-2	214353-17-0	Carc. Cat. 2; R45 Xn; R22 C; R34 N; R51-53	

Chemical name	EC No	CAS No	Classification	Concentration Limits
4,4'-(1,3-phenylene-bis(1-methylethylidene))bis-phenol	428-970-4	13595-25-0	Repr.Cat.3; R62 R43 N; R51-53	
chloro-1-ethylcyclohexyl carbonate	444-950-8	99464-83-2	Muta.Cat.3; R68 R43	
2-chloro-6-fluoro-phenol	433-890-8	2040-90-6	Muta.Cat.2; R46 Repr.Cat.3; R62 Xn; R22 C; R34 R43 N; R51-53	
2-methyl-5-*tert*-butylthiophenol	444-970-7	-	R10 Repr.Cat.3; R63 Xn; R48/20/22-65 Xi; R36/38 R43 R67 N; R50-53	
cyclic 3-(1,2-ethanediylacetale)-estra-5(10),9(11)-diene-3,17-dione	427-230-8	5571-36-8	Repr. Cat. 2; R60 Xn; R48/22 N; R51-53	
androsta-1,4,9(11)-triene-3,17-dione	433-560-3	15375-21-0	Repr. Cat.3; R62	
trisodium nitrilotriacetate	225-768-6	5064-31-3	Carc. Cat. 3; R40 Xn; R22 Xi; R36	C ≥ 25 %: Xn; R22-36-40 20 ≤ % C < 25 %: Xn; R36-40 5 ≤ % C < 20 %: Xn; R40
2-ethylhexyl-2-ethylhexanoate	231-057-1	7425-14-1	Repr. Cat. 3; R63	
diisobutyl phthalate	201-553-2	84-69-5	Repr. Cat. 2; R61 Repr. Cat. 3; R62	C ≥ 25 %: T; R61-62 5 % ≤ C < 25 %: Xn; R62
perfluorooctane sulfonic acid; heptadecafluorooctane-1-sulfonic acid; [1] potassium perfluorooctanesulfonate; potassium heptadecafluorooctane-1-sulfonate; [2] diethanolamine perfluorooctane sulfonate; [3] ammonium perfluorooctane sulfonate; ammonium heptadecafluorooctanesulfonate; [4] lithium perfluorooctane sulfonate; lithium heptadecafluorooctanesulfonate [5]	217-179-8 [1] 220-527-1 [2] 274-460-8 [3] 249-415-0 [4] 249-644-6 [5]	1763-23-1 [1] 2795-39-3 [2] 70225-14-8 [3] 29081-56-9 [4] 29457-72-5 [5]	Carc. Cat. 3; R40 Repr. Cat. 2; R61 T; R48/25 Xn; R20/22 R64 N; R51-53	
ethyl 1-(2,4-dichlorophenyl)-5-(trichloromethyl)-1*H*-1,2,4-triazole-3-carboxylate	401-290-5	103112-35-2	Carc.Cat.2; R45 N; R50-53	
1-bromo-2-methylpropyl propionate	422-900-6	158894-67-8	R10 Carc.Cat.3; R40 C; R34 R43	

Chemical name	EC No	CAS No	Classification	Concentration Limits
triammonium 4-[4-[7-(4-carboxylatoanilino)-1-hydroxy-3-sulfonato-2-naphthylazo]-2,5-dimethoxyphenylazo]benzoate	432-270-4	221354-37-6	Repr. Cat. 3; R62 Xn; R48/22 N; R51-53	
mixture of: triammonium 6-amino-3-((2,5-diethoxy-4-(3-phosphonophenyl)azo)phenyl)azo-4-hydroxy-2-naphthalenesulfonate; diammonium 3-((4-((7-amino-1-hydroxy-3-sulfo-naphthalen-2-yl)azo)-2,5-diethoxyphenyl)azo)benzoate	438-310-7	-	E; R2 Repr. Cat. 3; R62 Xn; R22-48/22 R52-53	
(3-chloro-2-hydroxypropyl) trimethylammonium chloride ...%	222-048-3	3327-22-8	Carc. Cat. 3, R40 R52-53	
biphenyl-3,3',4,4'-tetrayltetraamine; diaminobenzidine	202-110-6	91-95-2	Carc. Cat. 2; R45 Muta. Cat. 3; R68	
piperazine hydrochloride; [1] piperazine dihydrochloride; [2] piperazine phosphate [3]	228-042-7 [1] 205-551-2 [2] 217-775-8 [3]	6094-40-2 [1] 142-64-3 [2] 1951-97-9 [3]	Repr. Cat. 3; R62-63 Xi; R36/38 R42/43 R52-53	
3-(piperazin-1-yl)-benzo[d]isothiazole hydrochloride	421-310-6	87691-88-1	Repr. Cat. 3; R62 Xn; R22 Xi; R36 R43 N; R50-53	
2-ethylphenylhydrazine hydrochloride	421-460-2	19398-06-2	Carc. Cat. 3; R40 T; R48/25 Xn; R22 Xi; R41 R43 N; R50-53	C ≥ 25 %: T. N; R22-40-41-43-48/25-50/53 10 % ≤ C < 25 %: T. N; R40-41-43-48/25-50/53 5 % ≤ C < 10 %: Xn. N; R36-40-43-48/22-50/53 2.5 % ≤ C < 5 %: Xn. N; R40-43-48/22-50/53 1 % ≤ C < 2.5 %: Xn. N; R40-43-48/22-51/53 0.25 % ≤ C < 1 %: N; R51/53 0.025 % ≤ C < 0.25 %: R52/53
(2-chloroethyl)(3-hydroxypropyl)ammonium chloride	429-740-6	40722-80-3	Carc. Cat. 2; R45 Muta. Cat. 2; R46 Xn; R48/22 R43 R52-53	
4-[(3-chlorophenyl)(1*H*-imidazol-1-yl)methyl]-1,2-benzenediamine dihydrochloride	425-030-5	159939-85-2	Repr. Cat. 3; R62 Xn; R22 C; R34 R43 N; R51-53	
chloro-*N,N*-dimethylformiminium chloride	425-970-6	3724-43-4	R14 Repr. Cat. 2; R61 Xn; R22 C; R35	

Chemical name	EC No	CAS No	Classification	Concentration Limits
7-methoxy-6-(3-morpholin-4-yl-propoxy)-3*H*-quinazolin-4-one; [containing ≥ 0.5 % formamide (EC No 200-842-0)]	429-400-7	199327-61-2	Repr. Cat. 2; R61 R52-53	
reaction products of diisopropanolamine with formaldehyde (1:4)	432-440-8	220444-73-5	Carc. Cat. 3; R40 Xn; R22 C; R34 R43 N; R51-53	
3-chloro-4-(3-fluorobenzyloxy)aniline	445-590-4	202197-26-0	Muta. Cat. 3; R68 Xn; R22-48/22 N; R50-53	
ethidium bromide; 3,8-diamino-1-ethyl-6-phenylphenantridinium bromide	214-984-6	1239-45-8	Muta. Cat. 3; R68 T+; R26 Xn; R22	
(*R,S*)-2-amino-3,3-dimethylbutane amide	447-860-7	144177-62-8	Repr. Cat. 3; R62 Xn; R48/22 Xi; R36/38 R43	
3-amino-9-ethyl carbazole; 9-ethylcarbazol-3-ylamine	205-057-7	132-32-1	Carc. Cat. 2; R45	
tetrahydro-1,3-dimethyl-1*H*-pyrimidin-2-one; dimethyl propyleneurea	230-625-6	7226-23-5	Repr. Cat. 3; R62 Xn; R22 Xi; R41	
quinoline	202-051-6	91-22-5	Carc. Cat. 2; R45 Muta. Cat. 3; R68 Xn; R21/22 Xi; R36/38 N; R51-53	
ketoconazole; 1-[4-[4-[[(2*SR*,4*RS*)-2-(2,4-dichlorophenyl)-2-(imidazol-1-ylmethyl)-1,3-dioxolan-4-yl]methoxy]phenyl]piperazin-1-yl]ethanone	265-667-4	65277-42-1	Repr. Cat. 2; R60 T; R25 Xn; R48/22 N; R50-53	
metconazole (ISO); (1*RS*,5*RS*;1*RS*,5*SR*)-5-(4-chlorobenzyl)-2,2-dimethyl-1-(1*H*-1,2,4-triazol-1-ylmethyl)cyclopentanol	-	125116-23-6	Repr. Cat. 3; R63 Xn; R22 N; R51-53	
potassium 1-methyl-3-morpholinocarbonyl-4-[3-(1-methyl-3-morpholinocarbonyl-5-oxo-2-pyrazolin-4-ylidene)-1-propenyl]pyrazole-5-olate; [containing ≥ 0.5 % N,N-dimethylformamide (EC No 200-679-5)]	418-260-2	183196-57-8	Repr. Cat. 2; R61 R43	
N,N',N''-tris(2-methyl-2,3-epoxypropyl)-perhydro-2,4,6-oxo-1,3,5-triazine	435-010-8	26157-73-3	Muta. Cat. 3; R68 R52-53	
trimethylopropane tri(3-aziridinylpropanoate); (TAZ)	257-765-0	52234-82-9	Muta. Cat. 3; R68 Xi; R41 R43	

Chemical name	EC No	CAS No	Classification	Concentration Limits
dimoxystrobin (ISO); (*E*)-2-(methoxyimino)-*N*-methyl-2-[α-(2,5-xylyloxy)-*o*-tolyl]acetamide	-	149961-52-4	Carc. Cat. 3; R40 Repr. Cat. 3; R63 Xn; R20 N; R50-53	C ≥ 25 %: Xn. N; R20-40-63-50/53 5 % ≤ C < 25 %: Xn. N; R40-63-50/53 2.5 % ≤ C < 5 %: Xn. N; R40-50/53 1 % ≤ C < 2.5 %: Xn. N; R40-51/53 0.25 % ≤ C < 1 %: N; R51/53 0.025 % ≤ C < 0.25 %: R52-53
N,N-(dimethylamino)thioacetamide hydrochloride	435-470-1	27366-72-9	Repr. Cat. 2; R61 N; R50-53	
mixture of: 2,2'-[(3,3'-dichloro[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[*N*-(2,4-dimethylphenyl)]-3-oxo-butanamide; 2-[[3,3'-dichloro-4'-[[1[[(2,4-dimethylphenyl)amino]carbonyl]-2-oxopropyl]azo][1,1'-biphenyl]-4-yl]azo]-*N*-(2-methylphenyl)-3-oxo-butanamide; 2-[[3,3'-dichloro-4'-[[1[[(2,4-dimethylphenyl)amino]carbonyl]-2-oxopropyl]azo][1,1'-biphenyl]-4-yl]azo]-*N*-(2-carboxylphenyl)-3-oxo-butanamide	434-330-5	-	Carc. Cat. 3; R40 R43 R53	