Assessment of regulatory needs

Authority: European Chemicals Agency (ECHA)

Date: 5 March 2021

Group Name: Aromatic ethers

General structure: -

Revision history

Version	*Date*	*Description*
1	5 March 2021	

Substances within this group:

EC/List number	CAS number	Substance name	Registration type (full, OSII or TII, NONS), highest tonnage band among all the registrations (t/y) [1]
202-876-1	100-66-3	anisole	Full, 100-1000
203-139-7	103-73-1	phenetole	Full, not (publicly) available
203-253-7	104-93-8	4-methylanisole	Full, 10-100
209-426-3	578-58-5	2-methylanisole	Full, not (publicly) available
214-426-1	1126-79-0	n-butyl phenyl ether	Full, not (publicly) available
217-049-0	1730-48-9	methyl 1,2,3,4-tetrahydro-6-naphthyl ether	OSII or TII
801-941-7	1404190-37-9	2-sec-butyl-1-(decyloxy)-4-tritylbenzene	Full, not (publicly) available
202-981-2	101-84-8	diphenyl ether	Full, >1000
248-948-6	28299-41-4	ditolyl ether	Full, not (publicly) available
405-730-7	51601-57-1	4-(4-tolyloxy)biphenyl	Full, not (publicly) available
202-213-6	93-04-9	methyl 2-naphthyl ether	Full, 100-1000
202-226-7	93-18-5	ethyl 2-naphthyl ether	Full, 10-100
218-529-2	2173-57-1	isobutyl 2-naphthyl ether	Full, not (publicly) available
218-696-1	2216-69-5	methyl 1-naphthyl ether	OSII or TII
405-490-3	613-62-7	2-(phenylmethoxy)naphthalene	NONs, 100-1000
203-118-2	103-50-4	dibenzyl ether	Full, not (publicly) available
222-619-7	3558-60-9	(2-methoxyethyl)benzene	Full, 10-100
259-943-3	56011-02-0	isopentyl phenethyl ether	Full, 1-10
279-576-2	80858-47-5	[2-(cyclohexyloxy)ethyl]benzene	Full, not (publicly) available
428-340-9		cyclopentyl 2-phenylethyl ether	NONS, not (publicly) available
430-150-6		(3-Methoxy-2-methylpropyl)benzene	Full, not (publicly) available
826-704-5	1631962-93-0	4-(2-methylpropyl)benzyl propyl ether	Full, not (publicly) available

[1] Note that the total aggregated tonnage band may be available on ECHA's webpage at https://echa.europa.eu/information-on-chemicals/registered-substances

This table contains also group members that are only notified under the CLP Regulation. However, the list is currently non-exhaustive. Should further regulatory risk management action on one or more substances in the group be considered, ECHA will make an additional search for related C&L notified substances to be included in the group and develop an assessment of regulatory needs for them.

In addition, there is one registered group member for which all substance identifiers are confidential.

Contents

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Foreword

The purpose of the assessment of regulatory needs of a group of substances is to help authorities conclude on the most appropriate way to address the identified concerns for a group of substances or a single substance, i.e. the combination of the regulatory risk management instruments to be used and any intermediate steps, such as data generation, needed to initiate and introduce these regulatory measures.

An assessment of regulatory needs can conclude that regulatory risk management at EU level is required for a (group of) substance(s) (e.g. harmonised classification and labelling, Candidate List inclusion, restriction, other EU legislation) or that no regulatory action is required at EU level. While the assessment is done for a group of substances, the (no) need for regulatory action can be identified for the whole group, a subgroup or for single substance(s).

The assessment of regulatory needs is an important step under ECHA's Integrated Regulatory Strategy. However, it is not part of the formal processes defined in the legislation but aims to support them.

The assessment of regulatory needs can be applied to any group of substances or single substance, i.e., any type of hazards or uses and regardless of the previous regulatory history or lack of such. It can be done based on different level of information. A Member State or ECHA can carry out this case-by-case analysis. The starting point is available information in the REACH registrations and any other REACH and CLP information. However, more extensive set of information can be available, e.g. assessment done under REACH/CLP or other EU legislation, or can be generated in some cases (e.g. further hazard information under dossier evaluation). Uncertainties associated to the level of information used should be reflected in the documentation. It will be revisited when necessary. For example, after further information is generated and the hazard has been clarified or when new insights on uses are available. It can be revisited by the same or another authority.

The responsibility for the content of this assessment rests with the authority that developed it. It is possible that other authorities do not have the same view and may develop further assessment of regulatory needs. The assessment of regulatory needs does not yet initiate any regulatory process but any authority can consequently do so and should indicate this by appropriate means, such as the Registry of Intentions.

For more information on Assessment of regulatory needs please consult ECHA website[2].

[2] https://echa.europa.eu/understanding-assessment-regulatory-needs

Glossary

CCH	Compliance Check
CLH	Harmonised classification and labelling
CMR	Carcinogenic, mutagenic and/or toxic to reproduction
DEv	Dossier evaluation
ED	Endocrine disruptor
NONS	Notified new substances
OEL	Occupational exposure limit
OSII or TII	On-site isolated intermediate or transported isolated intermediate
PBT/vPvB	Persistent, bioaccumulative and toxic/very persistent and very bioaccumulative
RMOA	Regulatory management options analysis
RRM	Regulatory risk management
SEv	Substance evaluation
STOT RE	Specific target organ toxicity, repeated exposure
SVHC	Substance of very high concern

1 Overview of the group

ECHA has grouped together structurally similar substances based on the presence of a common moiety, i.e. an ether group – an oxygen atom connected to two aryl groups or one aryl and one alkyl group. The general formula is R-O-R', where R and R' represent the alkyl group and the aryl group. Alkyl groups are linear, branched or cyclic. Aryl groups are simple phenyl groups, alkyl substituted phenyl groups, biphenyl, naphthyl or alkylphenyl (etheric oxygen is not directly linked to aryl group). There are few examples of symmetric ethers, where R and R' groups are the same.

The group consists of 23 substances. Out of 23 group members, 20 substances are identified as mono-constituent, 2 as multi-constituent and 1 as UVCB substance.

Based on chemical structure similarities, ECHA has identified 4 subgroups:

(1) Aromatic-aliphatic ethers
(2) Di-aromatic ethers
(3) Naphthyl ethers
(4) Alkylphenyl ethers.

Two substances (EC 203-253-7, EC 202-213-6) are self-classified for toxicity for reproduction (repro 2). Three members of the group have known skin sensitisation properties. For one substance (EC 405-490-3), aquatic chronic 1 classification has been proposed. No impurities or minor constituents have been identified that have an impact on the hazard profile of this group of substances. Data generation is ongoing for at least 4 members of the group. Namely, pre-natal and extended one-generation studies are ongoing for two substances, one substance is included in the CoRAP due to developmental toxicity concern, and one substance is under substance evaluation for PBT concern.

This group of substances is structurally linked to the linear ethers for which potential CMR properties have been identified for 2 short chain members (i.e. dimethyl ether EC 204-065-8, and diethyl ether EC 200-467-2), and data generation is ongoing.

Based on information reported in the REACH registration dossiers, there is high potential for exposure to both human health and environment for most of the substances in the group. The substances in the group are used as fragrance/odour agents in washing and cleaning products, cosmetics and personal care products, polishes and waxes, air care products and biocidal products. Furthermore, 2 substances are only used in fuels as a marker, 1 substance is used in tires production as a solvent and 1 substance is used as sensitising agent in thermal paper coatings. While consumer and professional uses are reported for almost all substances in the group, 4 substances are used in an industrial setting only (solvent, processing aid and intermediate). For 3 substances of the group, article service life has been reported.

Note on the scope of ECHA's assessment of regulatory needs

Regarding hazards, the focus of ECHA's assessment is on CMR (carcinogenic, mutagenic and/or toxic to reproduction), sensitiser, ED (endocrine disruptor), PBT/vPvB or equivalent (e.g. substances being persistent, mobile and toxic), aquatic toxicity hazard endpoints and therefore only those are reflected in the table in section 3. This does not mean that the substances do not have other known or potential hazards. In some specific cases, where ECHA identifies a need for regulatory risk management action at EU level for other hazards (e.g. neurotoxicity, STOT RE), such additional hazards may be addressed in the assessment. An overview of classification is presented in Annex 1.

On the exposure side, ECHA is mainly using the information on uses reported in the registration dossiers (IUCLID) as a proxy for assessing the potential for exposure to humans and releases to the environment. The potential for release/exposure is generally considered high for "widespread" uses, i.e. professional and consumer uses and uses in articles. For these uses, normally happening at many places, the expected level of control is *à priori* considered limited. The chemical safety reports are not necessarily consulted and no quantitative exposure assessment is performed at this stage.

2 Justification for the need for follow-up regulatory risk management action at EU level

Based on currently available information, there is a **need for EU regulatory risk management for all (except 4) group members –restriction combined with authorisation to address the potential Repro 1 B hazard.**

Based on ECHA's assessment of currently available hazard information it is considered that all substances in the group have (potentially) the following human health hazards: reproductive and developmental toxicity. This hazard is identified based on observed developmental effects from a limited number of substances of different subgroups. Based on structural similarity the findings from the toxicity studies are extrapolated to the substances where there is limited information for this endpoint. In addition, three substances have known skin sensitisation properties.

First the potential reproductive toxicity hazard will need to be clarified. Two substances are already under compliance check (EC 202-981-2, EC 202-213-6) and one (EC 203-253-7) is under substance evaluation for reproductive and developmental toxicity properties. In addition, compliance check will be initiated for substances at 10-100 t/y or higher tonnage band within the group. Depending on the outcome of the ongoing and foreseen evaluation activities on higher tonnage substances, substance evaluation may be considered in the future to address the less than 10 t/y substances as well.

The substances are mainly used as fragrances in several products (cosmetics, cleaning & washing, air care, wax and polishes, biocides, etc.) by consumers and professionals. For those substances where the reprotoxicity hazard will be confirmed after evaluation activities are completed, restriction is suggested as most appropriate regulatory management option to address those uses. The remaining industrial uses are suggested to be covered by Authorisation.

The first step of the regulatory risk management action proposed, should the hazard exist, is the confirmation of hazard via harmonised classification (CLH) as Repr. 1B. The CLH i) will trigger company level risk management measures (RMM) under OSH legislation for workers, ii) is needed or highly recommended for further regulatory processes and iii) is a prerequisite to restrict the presence of the substances in consumer mixtures, by means of the restriction entry 30 of REACH Annex XVII. CLH will also support regulatory action under the Cosmetic products regulation (EC) No 1223/2009 for uses as fragrance, since CMR cat. 1 are restricted by this regulation and under the biocidal product regulation (BPR, Regulation (EU) 528/2012) in line with article 19(4) of this regulation which does not allow the use by the general public of a product containing substances above the concentration limit leading to classification of the mixture as reprotoxic cat 1.

Professional use is typically widespread (at many sites and many users) with relatively low levels of operational controls and risk management measures. In addition, professional users may be self-employed and therefore not covered by the abovementioned OSH legislation for workers. Consumers may be co-exposed to the substances used. Therefore, a **specific restriction on mixtures used by professionals** is suggested after the CLH. Moreover, **restricting substances in articles** used by professionals or consumers (reported for two substances, 203-118-2 in tyres and 405-490-3 in thermal paper) is proposed. The choice of the restriction for professional uses over other regulatory management options (e.g. authorisation) is in line with the policy recently proposed by the European Commission[3] under the Chemical Strategy for Sustainability that expresses the need to extend *the level of protection granted under REACH to consumers also to* professional users.

An EU-wide exposure limit for workers under Occupational Health and Safety (OSH) legislation or REACH as an alternative risk management option to authorisation for industrial uses was also considered. For one specific substance (EC 202-981-2) an indicative EU OEL does exist and may be considered as sufficient to control the inhalation risk for industrial workers. Introducing EU-wide exposure limits for workers under OSH or REACH for all or some of the other substances within the group may not be a priority for relatively low or very low tonnage substances (but could be an option under REACH restriction if a restriction proposal is submitted in any case); moreover, authorisation also better promotes substitution than an OEL/DNEL would. Therefore, for the time being, even though a clear decision between the two regulatory options for uses at industrial sites is not possible, authorisation is suggested as the next regulatory risk management option. This proposal will be revisited once the hazard will be clarified after data generation, preferably based on further assessment and for instance when developing further the restrictions proposed above which should also support clarifying what are those industrial uses in need for EU RRM action.

Three substances are self-classified as skin sensitiser 1/1B. In this respect, for industrial and professional uses, sufficient and consistent self-classification by registrants should trigger adequate risk management measures according to workplace legislation. There is a concern related to skin sensitisers (potentially) present in consumer mixtures and the need to further investigate whether further regulatory actions are needed and what would be the best options to address this concern. Such concern has already been identified in other groups of substances and was brought for further discussion to Member States. Work is ongoing on this generic issue by both Member States and ECHA which may affect the regulatory actions on substances in this group. For this specific group of substances, the

[3] European Commission, *Chemical Strategy for Sustainability Towards a Toxic-Free Environment*, 14.10.20 Ref to paragraph 2.2.1, https://ec.europa.eu/environment/pdf/chemicals/2020/10/Strategy.pdf

actions triggered by the reprotoxicity hazard (in particular, CLH) would also reduce the presence of these substances in consumer mixtures under a level (0.3% for Repr. 1B) which will reduce the risk in respect to skin sensitisation (concentration limit for classification for skin sensitiser 1/1B set at 1%). If the reprotoxicity hazard is confirmed it may be considered to include in the CLH proposal also the skin sensitisation.

For environment and in particular for aquatic toxicity, it is expected that after compliance check, registrants would adequately self-classify the substances and then implement the relevant risk management measures which would be sufficient to ensure safe use in accordance with environmental legislation. Therefore, it is proposed that there is no need for EU-wide action such as harmonised classification and labelling at the moment. Two substances are intermediates registered as OSII or TII and two substances are unclaimed or inactive NONs. They are flagged in the table below and any update of the registration status will be checked to identify any need for a revision of the strategy. No action is proposed at this stage for them.

3 Conclusions and actions

The conclusions and actions proposed in the table below are based on the REACH and CLP information available at the time of the assessment by ECHA. The main source of information is the registration dossiers. Relevant public assessments may also be considered. When new information (e.g. on hazards through evaluation processes, or on uses) will become available, the document will be updated and conclusions and actions revisited.

Subgroup name, EC number, substance name	Human Health Hazard	Environmental Hazard	Relevant use(s) & exposure potential	Last foreseen action	Action
202-213-6 **202-226-7** **214-426-1** **222-619-7** **405-490-3** **801-941-7** **203-118-2**	Known or potential hazard for reproductive toxicity	Known or potential hazard for aquatic toxicity	Mainly used as **fragrance in consumer products** with potential for exposure to both human health and the environment Other uses: Marker in fuels Tyres production and paper coatings Solvent and intermediate in industrial setting	**Need for EU RRM: Restriction combined with authorisation** <u>Justification</u>: The harmonised classification as Repr. 1B would trigger the restriction entry 30 and by that ensure that the substances are not included in consumer mixtures. Restriction is proposed to ensure same level of protection to professional users as to consumers (reference to CSS[3]). Specific restriction for use in articles for 405-490-3 For industrial uses, authorisation is suggested as the most appropriate option in particular in view of the	Choose an item. **First step:** CCH **Next steps (if hazard confirmed)** • CLH • Restriction for professional uses and for use in articles • In parallel of the restriction, SVHC identification followed by authorisation of industrial uses
202-876-1 **203-139-7** **203-253-7**		No or unlikely hazard for environment			

Subgroup name, EC number, substance name	Human Health Hazard	Environmental Hazard	Relevant use(s) & exposure potential	Last foreseen action	Action
				high number of substances with low tonnages.	
202-981-2	Known or likely hazard for reproductive toxicity and for skin sensitisation	Known or likely hazard for aquatic toxicity	Mainly used as **fragrance in consumer products** Other uses: Solvent and intermediate in industrial setting, including pharmaceutical	**Need for EU RRM: Restriction** <u>Justification</u>: The harmonised classification as repro 1 would trigger the restriction entry 30 and by that ensure that the substances are not included in consumer mixtures. Restriction is proposed to ensure same level of protection to professional users as to consumers (reference to CSS[3]). Specific restriction for use in articles An EU OEL exists for this substance. This EU RRM is considered sufficient for industrial uses.	**First step**: CCH **Next steps (if hazard confirmed)** • CLH • Restriction of professional uses and for use in articles
209-426-3 **218-529-2** **259-943-3**	Known or likely hazard	Known or likely hazard for aquatic toxicity.	Mainly used as **fragrance in consumer products (cosmetic, air care,**	**Need for EU RRM: Restriction combined with authorisation**	No action

Subgroup name, EC number, substance name	Human Health Hazard	Environmental Hazard	Relevant use(s) & exposure potential	Last foreseen action	Action
430-150-6 **826-704-5**	for reproductive toxicity		**washing and cleaning, biocides)**	Justification: The harmonised classification as repro 1 would trigger the restriction entry 30 and by that ensure that the substances are not included in consumer mixtures above 0.3% w/w. Restriction is proposed to ensure same level of protection to professional users as to consumers (reference to CSS**Error! B ookmark not defined.**). For industrial uses, authorisation is suggested as the most appropriate option in particular in view of the high number of substances with low tonnages.	Data generation to be considered after CCH on other substances in the group
279-576-2	Known or likely hazard for reproductive toxicity and skin sensitisation				
248-948-6	Known or likely hazard	Known or likely hazard for aquatic toxicity. Inconclusive hazard	Industrial use as intermediate under strictly controlled conditions	**Currently no need for EU RRM**	No action

Subgroup name, EC number, substance name	Human Health Hazard	Environmental Hazard	Relevant use(s) & exposure potential	Last foreseen action	Action
	for reproductive toxicity based on structural similarity	for PBT/vPvB			
217-049-0 218-696-1 405-730-7 and 428-340-9 (NONS)	Known or likely hazard for reproductive toxicity based on structural similarity	Known or likely hazard for aquatic toxicity. EC 248-948-6 inconclusive for PBT[4]	Use as intermediate under strictly controlled conditions No data available for the 2 NONs	**Currently no need for EU RRM** Justification: Actions (including data generation) will be re-considered when the assessment will be revisited if the registration status changes	No action

[4] No regulatory hypothesis for PBT at moment since waiting for the SEv outcome.

Annex 1: Harmonised and self-classifications

Data extracted on 8/01/2021

EC/ List No	Substance name	Harmonised classification	Classification in registrations	Classification in C&L notifications
430-150-6	430-150-6	-	-	-
N/A	Not (publicly) available	-	-	-
279-576-2	[2-(cyclohexyloxy)ethyl]benzene	-	Skin Irrit. 2 H315 Skin Sens. 1B H317 Aquatic Acute 1 H400 Aquatic Chronic 1 H410	-
214-426-1	n-butyl phenyl ether	-	Eye Irrit. 2 H319	Skin Irrit. 2 H315 STOT SE 3 H335
222-619-7	(2-methoxyethyl)benzene	-	Skin Irrit. 2 H315 Eye Irrit. 2 H319 Aquatic Chronic 3 H412	Eye Irrit. 2A H319 STOT SE 3 H335 Flam. Liquid 3 H226 Acute Tox. 4 H302
202-876-1	anisole	-	Muta 2 H341 STOT SE 3 H336 Eye Damage 1 H318 Skin Corr. 1B H314 Flam. Liquid 3 H226 STOT SE 3 H336	Acute Tox. 3 H311 Acute Tox. 3 H331 Eye Irrit. 2 H319 STOT SE 3 H335 STOT SE 3 H336 Skin Irrit. 2 H315 Acute Tox. 4 H302 Flam. Liquid 2 H225 Acute Tox. 4 H332
202-226-7	ethyl 2-naphthyl ether	-	Eye Irrit. 2A H319 Aquatic Chronic 2 H411	Eye Irrit. 2 H319 Skin Irrit. 2 H315
203-118-2	dibenzyl ether	-	Skin Sens. 1B H317	Skin Irrit. 2 H315

EC/ List No	Substance name	Harmonised classification	Classification in registrations	Classification in C&L notifications
			Aquatic Acute 1 H400 Aquatic Chronic 1 H410	Eye Irrit. 2 H319 STOT SE 3 H335 Aquatic Chronic 2 H411
202-213-6	methyl 2-naphthyl ether	-	Eye Irrit. 2 H319 Aquatic Chronic 2 H411	Acute Tox. 4 H302 STOT RE 2 H373 Repr. 2 H361
202-981-2	diphenyl ether	-	Eye Irrit. 2 H319 Aquatic Chronic 2 H411 Eye Irrit. 2A H319 Aquatic Acute 1 H400 Aquatic Chronic 3 H412	Eye Damage 1 H318 Skin Irrit. 2 H315 STOT SE 3 H335 Aquatic Acute 2 Aquatic Chronic 1 H410 Acute Tox. 4 H302 Acute Tox. 4 H312
801-941-7	2-sec-butyl-1-(decyloxy)-4-tritylbenzene	-	Aquatic Chronic 4 H413	-
203-139-7	phenetole	-	Flam. Liquid 3 H226	-
248-948-6	ditolyl ether	-	Acute Tox. 4 H302 Aquatic Acute 1 H400 Aquatic Chronic 1 H410	Aquatic Chronic 1 H410 Aquatic Acute 1 H400
209-426-3	2-methylanisole	-	Flam. Liquid 3 H226 Acute Tox. 4 H302	-
218-696-1	methyl 1-naphthyl ether	-	-	Aquatic Chronic 2 H411
826-704-5	4-(2-methylpropyl)benzyl propyl ether	-	Skin Sens. 1B H317 Aquatic Acute 1 H400 Aquatic Chronic 1 H410	-
218-529-2	isobutyl 2-naphthyl ether	-	Aquatic Acute 1 H400	Aquatic Chronic 3 H412

EC/ List No	Substance name	Harmonised classification	Classification in registrations	Classification in C&L notifications
			Aquatic Chronic 1 H410	
259-943-3	isopentyl phenethyl ether	-	Aquatic Chronic 2 H411	-
405-490-3	2-(phenylmethoxy)naphthalene	Aquatic Chronic 4H413	Aquatic Acute 3 Aquatic Chronic 1 H410 Aquatic Chronic 4 H413	-
217-049-0	methyl 1,2,3,4-tetrahydro-6-naphthyl ether	-	Eye Irrit. 2B H320 Aquatic Chronic 1 H410 Skin Sens. 1B H317 Aquatic Acute 1 H400	-
203-253-7	4-methylanisole	-	Repr. 2 H361 Acute Tox. 4 H302 Skin Irrit. 2 H315 Flam. Liquid 3 H226	Repr. 2 H361 Acute Tox. 3 H331 Eye Irrit. 2 H319 Aquatic Chronic 3 H412

Annex 2: Overview of uses based on information available in registration dossiers

Data extracted on 08/01/2021

Main types of applications structured by product or article types	Subgroup 1 (naphthyl ethers)					Subgroup 2 (di-aromatic ethers)			Subgroup 3 (aromatic-aliphatic ethers)							Sub-group 4 (alkylphenyl ethers)					
	202-213-6	202-226-7	218-529-2	218-696-1	405-490-3	202-981-2	248-948-6	N/A	202-876-1	203-139-7	203-253-7	209-426-3	214-426-1	217-049-0	801-941-7	203-118-2	222-619-7	259-943-3	279-576-2	430-150-6	826-704-5
PC 1: Adhesives, sealants					I																
PC 2: Adsorbents							I														
PC 3: Air care products	**C**	**C**	**C**			F, I, **C**					F, **C**	**C**				**C**	F, **C**	**C**	**C**	**C**	**C**
PC 4: Anti-freeze and de-icing products						**C**															
PC 8: Biocidal products (e.g. disinfectants, pest control)	**C**	**C**	**C**			F, I, **C**					F, I, **P, C**					**P, C**	F, **C**	**C**	**C**	**C**	**C**
PC 9a: Coatings and paints, thinners, paint removes					F, I																
PC 12: Fertilisers						**C**															
PC 13: Fuels													F, I, **P, C**		I, **P, C**						
PC 14: Metal surface treatment											I										

Main types of applications structured by product or article types	Subgroup 1 (naphthyl ethers)					Subgroup 2 (di-aromatic ethers)			Subgroup 3 (aromatic-aliphatic ethers)							Sub-group 4 (alkylphenyl ethers)					
products																					
PC 16: Heat transfer fluids						F, I	I														
PC 19: Intermediate				I		F, I	I		I	I		F, I		I		I	I	I			
PC 21: Laboratory chemicals				I		F, **P**			F, I			I				I					
PC 23: Leather treatment products							I														
PC 24: Lubricants, greases, release products								I													
PC 26: Paper and board treatment products					F, I, **C, A**																
PC 27: Plant protection products							I														
PC 28: Perfumes, fragrances	F, I, **P, C**	F, **C**	F, **C**			F, I, **P, C, A**				I	F, **C**	I, **C**				**C**	F, I, **P, C**	F, **C**	F, **C**	F, **C**	F, **C**
PC 29: Pharmaceuticals	F, I, **C**			I		F, I	I		I			I, **C**				**C**					
PC 31: Polishes and wax blends	**P, C**	**P, C**	**P, C**			F, I, **C**					F, **P, C**	**C**				**P, C**	**P, C**	**P, C**	**P, C**	**P, C**	**P, C**
PC 32: Polymer preparations and compounds						F, I, **C**										I, **A**					
PC 33: Semiconductors									I												

Annex 3: Overview of completed or ongoing regulatory risk management activities

Data extracted on 08/01/2021

EC/ List number	Other processes	RMOA	Authorisation		Restriction*	CLH	Other or previous legislation
			Candidate list	Annex XIV	Annex XVII		
405-490-3						CLH aquatic chronic 1 proposed	

*Some of the broad restriction entries in the Annex XVII of REACH are not represented in the overview, e.g. when the scope of the restriction is defined by its classification or the substance identification is broad (e.g. entries 3, 28-30 and 40).

There are no relevant completed or ongoing regulatory risk management activities for the other substances.