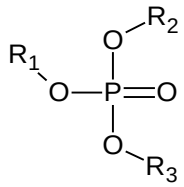
Assessment of regulatory needs

Authority: European Chemicals Agency (ECHA)

Group Name: Trialkylphosphates

General structure:

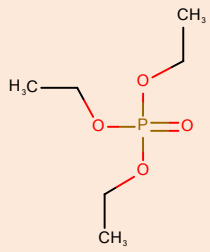
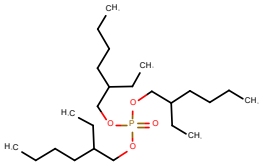
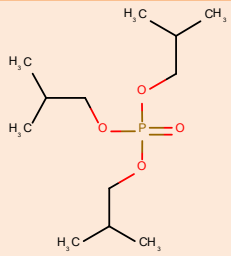
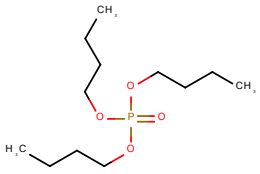
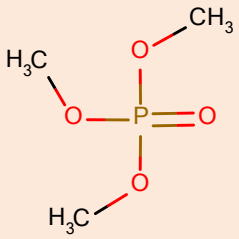


R_1, R_2 ,R_3 = aliphatic alkyl groups

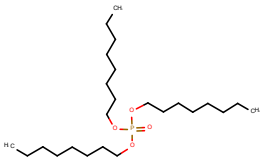
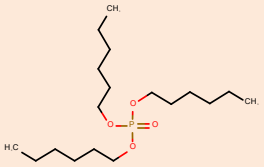
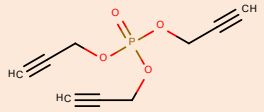
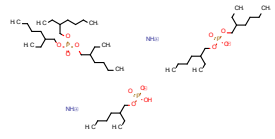
Revision history

Version	*Date*	*Description*
1	3 October 2023	

Substances within this group:

EC/List number	CAS number	Substance name [and/ or Substance name acronyms]	Chemical structures	Registration type (full, OSII or TII, NONS), highest tonnage band among all the registrations (t/y) [1]
201-114-5	78-40-0	Triethyl phosphate [TEP]		Full, >1000
201-116-6	78-42-2	Tris(2-ethylhexyl) phosphate [TEHP]		Full, >1000
204-798-3	126-71-6	Triisobutyl phosphate		Full, 100-1000
204-800-2	126-73-8	Tributyl phosphate		Full, >1000
208-144-8	512-56-1	Trimethyl phosphate [TMP]		Full, 10-100

[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

EC/List number	CAS number	Substance name [and/ or Substance name acronyms]	Chemical structures	Registration type (full, OSII or TII, NONS), highest tonnage band among all the registrations (t/y) [1]
217-305-1	1806-54-8	Trioctyl phosphate		Not registered
219-774-8	2528-39-4	Trihexyl phosphate		Full, not (publicly) available
470-910-4	-	[No public or meaningful name is available]		NONS
853-966-8	1779-34-6	Tri-2-propyn-1-yl phosphate		Full, not (publicly) available
947-967-3	-	Reaction mass of ammonium 2-ethylhexyl hydrogen phosphate and ammonium bis(2-ethylhexyl) phosphate and tris(2-ethylhexyl) phosphate		Full, not (publicly) available

This table does not contain group members that are only notified under the CLP Regulation. Should further regulatory risk management action on one or more substances in the group be considered, ECHA may 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.

Contents

DISCLAIMER

The author does not accept any liability with regard to the use that may be made of the information contained in this document. Usage of the information remains under the sole responsibility of the user. Statements made or information contained in the document are without prejudice to any further regulatory work that ECHA, the Member States or other regulatory agencies may initiate at a later stage. Assessment of regulatory needs and their conclusions are compiled on the basis of available information and may change in light of newly available information or further assessment.

Foreword

The assessment of regulatory needs of a group of substances is an iterative, informal process to help authorities consider the most appropriate way to address an identified concern for a group of substances or a single substance and decide whether further regulatory risk management activities are necessary.

The grouping is mainly based on structural similarity and associations made by the registrants between substances through read-across and category approaches as well as category associations from external sources (e.g. OECD categories)[2]. These methods are different from grouping as defined in Section 1.5 of Annex XI to REACH because the scope and intended use of ECHA's grouping is different. Thus, in this context, grouping does not aim to validate read-across and category approaches according to the Annex XI requirements but rather to support a faster and more consistent approach for regulating chemicals and avoid regrettable substitution.

The focus of the assessment is largely based on information available in the registration dossiers and on properties requiring regulatory risk management action at EU level[3]. The information reported on uses is from the registration dossiers (IUCLID) and is used as a proxy for assessing how widespread uses are and whether potential for exposure to humans and releases to the environment can be expected. The chemical safety reports are not necessarily consulted and no quantitative exposure assessment is performed at this stage.

The outcome of these assessments are proposals for immediate (the first action) and subsequent regulatory action(s), including the foreseen ultimate regulatory action (last foreseen regulatory action) to address the identified concern(s) in case the potential hazards are confirmed. For example, further data generation through compliance check is suggested as a first action, to confirm the identified hazard.

Where hazards are confirmed, regulatory risk management actions could be considered for the whole group, for a subgroup or for individual substances within the group. The robustness of the group depends on the stage of assessment and the level of certainty this stage requires. For example, the needs for grouping under restriction may differ from the needs for grouping for the purpose of harmonised classification. Group membership is reconsidered accordingly throughout the iterative assessment of regulatory needs, for example, after further information is generated and the hazard has been clarified or when new insights on uses and risks are available.

The assessment of regulatory needs in itself does not represent a regulatory action, but rather a preparatory step to consider further possible regulatory actions at the level of individual substances or groups/subgroups of substances.

[2] Working with Groups - ECHA (europa.eu)

[3] Regarding hazard properties the focus is for instance 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 report. This does not mean that the substances do not have other known or potential hazards. In some specific cases, ECHA may consider additional hazards (e.g. neurotoxicity, STOT RE).

Publication of ARNs makes it easier for companies to follow the latest status of their substances of interest, anticipate potential regulatory actions and make strategic choices in their chemicals portfolio.

For more information on assessments of regulatory needs please consult ECHA's website[4].

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

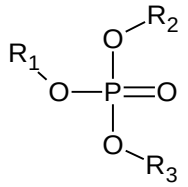
Glossary

ARN	Assessment of Regulatory Needs
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
PMT/vPvM	Persistent, mobile, and toxic / very persistent and very mobile
RDT	Repeated dose toxicity
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
TPE	Testing proposal evaluation

1 Overview of the group

Explanations on the scope of this assessment is available in the foreword to this document. Please read it carefully before going through the report.

ECHA has grouped together structurally similar substances based on the presence of the trialkylphosphate moiety shown in the figure below. The group is one of several groups built around substances with known use as flame retardants. The 10 substances in this group are aliphatic phosphate esters.



R_1, R_2 ,R_3 = aliphatic alkyl groups

Considering the chemical similarities between the substances, in general it is considered that the uses identified could be applicable across most of the substances in the group. The substances are mainly used as flame retardants, lubricating agents and defoamers. It is considered that these substances are used as additives in the absence of information leading to a different conclusion.

Exceptions for this conclusion are two substances which are structurally more distant to the other members of the group:

- EC 853-966-8: this substance is the only one with alkyne substitution. It is used as an electrolyte additive for batteries.
- EC 470-910-4[5]: This substance is the only cyclic molecule in the group. It is identified as a substance with flame retardant properties that is used in polyurethane foam products. It is considered unlikely this substance will be used in lubricants or technical fluids.

Considering the information available in the registration dossiers, the uses are widespread with professional workers and/or consumers exposed to mixtures containing these substances and articles from which these substances could be released. There is potential for exposure to these substances from a wide range of applications and markets, e.g. paper articles, textiles, leather treatment, plastic articles, coatings and paints, adhesives/sealants, functional fluids, lubricants.

Substance evaluation conclusion is available for the tributyl phosphate EC 204-800-2[6] and the trimethyl phosphate EC 208-144-8 is listed in the registry of CLH intentions with carcinogenicity, germ cell mutagenicity, reproductive toxicity, acute toxicity and specific target organ toxicity as hazard classes open for commenting[7].

[5] This is a non-claimed NONs substance.

[6] SEv conclusion document for Tributyl phosphate EC 204-800-2 https://echa.europa.eu/documents/10162/30a51754-69f8-1a4f-1811-89a64a5b54ce (Accessed 1/7/2022)

[7] Registry of CLH intentions until outcome, Trimethyl phosphate EC 208-144-8 https://echa.europa.eu/sv/registry-of-clh-intentions-until-outcome/-/dislist/details/0b0236e185d4c581 (Accessed 30/06/2023)

2 Conclusions and proposed actions

The conclusions and actions proposed in the table below are based mainly on the REACH and CLP information available at the time of the assessment by ECHA. The conclusions are preliminary suggestions from a screening-level assessment done by ECHA with the aim to propose the next steps for further work (e.g., strengthening of the hazard conclusions, clarification of the uses and/or potential for exposure). 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 may be updated, and conclusions and actions revisited.

As indicated in the Restrictions Roadmap[8] ECHA has prepared an overall Regulatory Strategy for Flame Retardants,[9] which will support the Commission when it decides to request ECHA to prepare (a) restriction dossier(s). The substances in scope are in principle all flame retardants, and there is a particular focus on brominated flame retardants and their prioritisation for restrictions.

Table 2: Conclusions and proposed actions

Subgroup name, EC number, substance name	Human Health Hazard	Environmental Hazard	Relevant use(s) & exposure potential	Suggested regulatory actions
201-114-5 **201-116-6** **204-798-3** **204-800-2**	Known or potential hazard for ED for all substances Known or potential hazard	Known or potential hazard for ED, for all substances, and for aquatic toxicity, for 204-800-	The main technical function identified is as flame retardants and lubricating agents in a wide range of applications. It is considered that	**First step:** CCH for 201-114-5, 219-774-8 and 947-967-3 Following ongoing and proposed data generation, SEv is considered in case further clarification is needed for the ED

[8] https://ec.europa.eu/docsroom/documents/49734

[9] https://echa.europa.eu/documents/10162/2082415/flame_retardants_strategy_en.pdf/9dd56b7e-4b62-e31b-712f-16cc51d0e724?t=1679045593845

Subgroup name, EC number, substance name	Human Health Hazard	Environmental Hazard	Relevant use(s) & exposure potential	Suggested regulatory actions
208-144-8 **217-305-1** **219-774-8** **947-967-3**	for carcinogenicity for 208-144-8, 201-114-5, 204-800-2, 201-116-6, 947-967-3 Known or potential hazard for mutagenicity for 208-144-8 and 201-114-5 Known or potential hazard for reproductive toxicity for 208-144-8, 201-114-5 and 947-967-3	2, 219-774-8 and 217-305-1 No hazard or unlikely hazard for PBT/vPvB	these substances are used as additives in the absence of information leading to a different conclusion. Considering the information available in the registration dossiers, the uses are widespread with professional workers and/or consumers exposed to mixtures containing these substances and articles from which these substances could be released. There is potential for exposure to these substances from a wide range of applications and markets, e.g. paper articles, textiles, leather treatment, plastic articles, coatings and paints,	hazard and could be targeted for a few substances, e.g. EC 201-114-5 and EC 201-116-6. **Potential next steps (if hazard confirmed after data generation):** CLH and SVHC **Potential last action:** Restriction <u>Justification</u>: SVHC identification/CLH is highly recommended as a step prior to restriction. The reported professional uses are widespread (at many sites and many users) with relatively low levels of operational controls and risk management measures but with often frequent exposures with a long duration. Restriction of professional uses is preferred over authorisation as it is considered to be more efficient and effective to introduce

Subgroup name, EC number, substance name	Human Health Hazard	Environmental Hazard	Relevant use(s) & exposure potential	Suggested regulatory actions
			adhesives/sealants, functional fluids, lubricants…	controls at the level of placing on the market rather than at the level of uses. Potential exposure from articles needs further investigation, restriction for use in articles to be considered together with the restriction of professional uses.
470-910-4 **853-966-8**	Known or potential hazard for skin sensitisation for 853-966-8	No hazard or unlikely hazard for PBT/vPvB	For substance List 853-966-8 the only identified use is in battery electrolytes in industrial settings with limited potential for exposure. For substance EC 470-910-4 no use description is available, but it seems to be used as a flame retardant in polyurethane products. Thus, potential for exposure is possible from releases during the articles service life of the products.	**First step** No action **Potential last action:** Currently no need for EU RRM <u>Justification</u>: Overall, no or unlikely hazard that would lead to concern for the reported uses. For EC 853-966-8 self-classification as Skin Sens. 1 followed by implementation of necessary RMMs should be sufficient to ensure safe use at the workplace.

3 Justification for the need for regulatory risk management action at EU level if hazards confirmed

Suggested regulatory risk management action for the substances EC/List 201-114-5, 201-116-6, 204-798-3, 204-800-2, 208-144-8, 217-305-1, 219-774-8 and 947-967-3 if carcinogenicity, mutagenicity, reproductive toxicity, or ED (human health and environment) hazards are confirmed.

Based on currently available information, there are potential hazards for carcinogenicity, mutagenicity, reproductive toxicity, and ED (human health and environment).

Based on ECHA's assessment of hazard information currently available in the registration dossiers and considerations of structural similarity, all the substances listed above have (potentially) ED hazards. ED hazard identification is based on the effects seen in thyroid as target organ independent of chain length. In the available repeated dose toxicity studies in rodents, thyroid follicle hypertrophy, colloid alteration, changes in thyroid system hormones and/or thyroid adenomas, carcinomas reported for EC 201-114-5, EC 204-800-2, 219-774-8, 201-116-6 and 947-967-3. These substances also are potential ED for environment based on thyroid changes in rodents and structural similarities. To confirm this conclusion, further assessment is planned (data generation ongoing for EC 201-114-5 and EC 201-116-6), and substance evaluation is proposed if further clarification is needed.

A CLH proposal for substance trimethyl phosphate, EC 208-144-8 for Repr. 1B/F, Muta 1B, Carc 1B, STOT RE 2 (neurotoxicity) has been submitted[7]. Based on close structural similarity, these potential hazards for carcinogenicity, mutagenicity and reproductive toxicity are tentatively extrapolated to substance triethyl phosphate, EC 201-114-5. These short chain trialkyl phosphates may function as alkylating agents with a potential for common mechanism for the reproductive toxicity, mutagenicity, and carcinogenicity, while the information available for the longer chain trialkyl phosphates does not support the mechanism related to alkylation potential. Neurotoxicity is also reported for triethyl phosphate (EC 201-114-5) but the effects are only observed at high doses not meeting the criteria for STOT RE. The information on the longer alkyl chain triphosphates lack of mutagenicity with increasing chain length. Ongoing data generation and compliance check for EC 201-114-5 may validate or refute the extrapolation.

A potential reproductive toxicity hazard has also been identified for substance EC 947-967-3 based on the reduced fertility observed for one of the constituents of the substance. This hazard needs to be confirmed via compliance check.

Known or potential carcinogenicity hazard category 2 was identified for EC 204-800-2 (CLH Carc 2; urinary bladder neoplasia[6]), EC 201-116-6 (liver carcinoma) EC 947-967-3 (containing EC 201-116-6 as constituent). There is uncertainty for the other structurally related substances in the group. These substances are unlikely to be genotoxic, and therefore, may not share the same mechanisms as the short chain trialkyl phosphates (EC 208-144-8 and 201-114-5). The mechanisms for the bladder cancer in EC 204-800-2 are related to the cytotoxicity of the substance leading to hyperproliferation of the bladder epithelia, while liver was the target in the chronic study for the EC 201-116-6. The limited data for these substances are inadequate for identification for the potential (key events) in the

mode of action and therefore, due to the uncertainty in the carcinogenicity mechanism combined with variation in the target organs and lack of chronic data for all the substances, it is not possible to extrapolate the hazard within the substances in the group.

In addition, aquatic toxicity was identified for EC 204-800-2, 219-774-8 and 217-305-1 however, available data does not indicate further environmental hazards.

Compliance check is proposed to clarify the identified hazards for a few representative group members: EC/List 201-114-5, 219-774-8 and 947-967-3.

Considering the chemical similarities between the substances, in general it is considered that the uses identified in the different substances can be applicable across all the listed substances.

The substances are mainly used as flame retardants, lubricating agents and defoamers in a wide range of applications e.g. paper articles, textiles, leather treatment, plastic articles, coatings and paints, adhesives/sealants, functional fluids, lubricants. Considering the information available in the registration dossiers, the uses are widespread with professional workers and/or consumers exposed to mixtures containing these substances and articles from which these substances could be released.

Therefore, it is concluded that there is potential for exposure/release of the substances both for humans and for environment.

Considering their structural similarity with the other listed substances in the group, substances EC/List 208-144-8 and 947-967-3 are considered potential substitutes and consequently they are proposed to be included in a restriction.

The first step of the regulatory risk management action proposed, should the hazards exist, is the confirmation of hazards for the substances via SVHC identification for ED and harmonised classification (CLH) for other endpoints. Alternatively, CLH may be pursued for all endpoints.[10]

CLH[11] will require company level risk management measures (RMM) under the OSH legislation for workers, to be in place. Also, it is needed or highly recommended for further regulatory processes under REACH and is a prerequisite to restrict the presence of the substances in consumer mixtures, by means of the restriction entry 28, 29, 30. Consumer uses have been reported for many of the applications.

CLH is also a prerequisite to restrict the presence in clothing, other textiles, and footwear articles, by means of the restriction entry 72 of REACH Annex XVII (this would require addition of the relevant substances to Appendix 12 by the Commission through Article 68(2)).[12]

[10] The hazard classes PBT/vPvB, PMT/vPvM, ED have been introduced in CLP. Therefore, instead of SVHC identification under REACH, these hazards may be confirmed via CLH. It is not clear when to use which legal route (SVHC under REACH or CLH under CLP) during the period that both legal options are available. However, in this case, since CLH is proposed for other endpoints, it may be pursued for all.

[11] CLH is proposed for substances EC/List 201-114-5, 204-800-2, 201-116-6, 947-967-3 should the hazard is confirmed for potential Carcinogenicity. There is already an ongoing CLH proposal for 208-144-8.

[12] This would apply to substances EC/List 201-114-5 and 947-967-3 based on the uses described in the registration dossier. Nevertheless, based on structural similarity substances EC 204-800-2 and 201-116-6 are considered as potential substitutes.

Confirmation of the hazard properties via SVHC identification and/or CLH is not considered sufficient to minimise potential releases of the substances in the environment. A restriction is seen as the most appropriate option as potential for exposure is expected from consumer uses, professional uses and article service life.

Releases to the environment from consumer uses cannot be avoided.

Widespread professional uses are typically non-contained and non-automated leading to releases to the environment. Professional uses have been reported for many of the applications.

Furthermore, potential for exposure and releases to the environment from articles is likely based on available information. As mentioned before, it is considered that these substances are used as additives in the absence of information leading to a different conclusion.

Therefore, a restriction of the substances as such or in mixtures (concentration limit in mixtures) used by consumers, professional workers and industrial workers is suggested after SVHC identification/CLH, with the aim to minimise exposures and emissions to humans and the environment.

Moreover, restricting substances in articles used by professionals or consumers should be considered in the context of the restriction of consumer/professional uses as since substances are likely to be used as additives.

Currently no need to suggest (further) regulatory risk management actions for the substances EC/List 470-910-4 and 853-966-8.

Both substances are structurally more distant to the other members of the group and therefore hazards identified for the other substances cannot be extrapolated based on the available information.

Substance EC 470-910-4 is a non-updated NONS for which no hazard has been identified in the available data. The substance seems to be used as a flame retardant in polyurethane foam products.

For EC 853-966-8, only skin sensitising properties (self-classification) were identified based on available data. Furthermore, considering the structural differences when compared with the rest of the substances in this group, the potential hazards identified for other substances in the group were not extrapolated to EC 853-966-8. As the only identified use of this substance is in battery electrolytes in industrial settings the potential for exposure is considered to be low. Finally, the draft regulation concerning batteries and waste batteries (which will repeal Directive 2006/66/EC and amend Regulation (EU) No 2019/1020) will apply in the future.

Therefore, it is proposed that there is currently no need for further EU regulatory risk management for these substances. This can be reconsidered in the future if the registration status for these substances change.

Annex 1: Overview of classifications

Data extracted on 07 June 2022

EC / List No	CAS No	Substance name	Harmonised classification	Classification in registrations	Classification in C&L notifications (*)
204-800-2	126-73-8	tributyl phosphate	Index number: 015-014-00-2 Acute Tox. 4 H302 (Minimum classification) Skin Irrit. 2 H315 Carc. 2 H351	Carc. 2 H351 Acute Tox. 4 H302 Skin Irrit. 2 H315 Aquatic Chronic 3 H412	Eye Irrit. 2 H319 STOT Rep. Exp. 2 H373 Carc. 2 H350 Acute Tox. 4 H332 Aquatic Chronic 2 H411
208-144-8	512-56-1	trimethyl phosphate	Proposed harmonised classification *Carc. 1B H350* *Muta. 1B H340* *Repr 1B H360FD* *Acute Tox. 4 H302* *STOT RE 2 H373 (nervous system)*	Eye Irrit. 2 H319 Skin Irrit. 2 H315 Carc. 2 H351 Muta. 1B H340 Acute Tox. 4 H302	STOT Rep. Exp. 2 H373, affected organs: kidneys; Central nervous system Repr. 2 H361 Muta. 2 H341 STOT Single Exp. 2 H371 Carc. 1B H350 Eye Damage 1 H318
947-967-3	-	Reaction mass of tris(2-ethylhexyl) phosphate and ammonium bis(2-ethylhexyl) phosphate and ammonium 2-ethylhexyl hydrogen phosphate	-	Skin Corr. 1B H314 Eye Damage 1 H318	-
204-798-3	126-71-6	triisobutyl phosphate	-	Skin Sens. 1B H317	Skin Sens. 1A H317 Skin Sens. 1 H317 Aquatic Chronic 3 H412 Skin Irrit. 2 H315 Eye Irrit. 2 H319 Resp. Sens. 1 H334
219-774-8	2528-39-4	trihexyl phosphate	-	Aquatic Acute 1 H400, M-factor: 10.00 Aquatic Chronic 1 H410, M-factor: 10.00	-

853-966-8	1779-34-6	triprop-2-yn-1-yl phosphate	-	Acute Tox. 4 H302 Skin Sens. 1 H317 Aquatic Chronic 3 H412	-
201-114-5	78-40-0	triethyl phosphate	Index number: 015-013-00-7 Acute Tox. 4 H302 (Minimum classification)	Acute Tox. 4 H302 Eye Irrit. 2 H319	STOT Single Exp. 3 H336, affected organs: Central nervous system Muta. 2 H341 STOT Single Exp. 3 H335 Carc. 1B H350
201-116-6	78-42-2	tris(2-ethylhexyl) phosphate	-	-	Aquatic Chronic 4 H413 Eye Irrit. 2 H319 STOT Single Exp. 3 H335, affected organs: Respiratory tract STOT Single Exp. 3 H335 Skin Irrit. 2 H315

(*) the number in brackets indicates the number of notifications received. Each notification can represent a group of notifiers, therefore the number may differ from the C&L inventory which displays number of notifiers.

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

Data extracted on 07 June 2022

Main types of applications structured by product or article types	EC 208-144-8	EC 204-798-3	List 853-966-8	List 947-967-3	EC 204-800-2	EC 201-114-5	EC 219-774-8	EC 201-116-6
PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents		I, P			F, I, P, C	I		I
PC 27: Plant protection products						F, P		F, P, C
PC 4: Anti-freeze and de-icing products (count)		F, C						
PC 35: Washing and cleaning products		F, I, P, C						
PC 15: Non-metal-surface treatment products		P, C						
PC 24: Lubricants, greases, release products		F, I, P, C			F, I, P			F, I, P, C
PC 25: Metal working fluids		F, I, P						I
PC 16: Heat transfer fluids		I			I, P			
PC 17: Hydraulic fluids		F, I, P			F, I, P			
PC 32: Polymer preparations and compounds		I			F, I, P, C	F, I, P, C, A		F, I, P, C, A
PC 1: Adhesives, sealants		F, I, P, C			F, I, P, C, A	F, I, P, C		P, C
PC 9c: Finger paint		C						
PC 9b: Fillers, putties, plasters, modelling clay		P, C			I, P	P, C		F, I, P, C
PC 9a: Coatings and paints, thinners, paint removes		F, I, P, C			F, I, P, C, A	F, I, P, C	I	F, I, P, C
PC 18: Ink and toners							I	
PC 26: Paper and board treatment products		I					I	C, A
PC 34: Textile dyes, and impregnating products		F, I		F, I, A				
PC 23: Leather treatment products		C				F, I, C, A		
PC 14: Metal surface treatment products		P, C						
PC 21: Laboratory chemicals	F, I, P	I, P			I, P			

PC 19: Intermediate	I	I			F, I	I		
PC 40: Extraction agents		F, I			I			
PC41: Oil and gas exploration or production products		F, I						
PC 30: Photo-chemicals							I	F, I, C
PC 42: Electrolytes for batteries mixtures (liquids or pastes)			I[13]					

F: formulation, I: industrial use, P: professional use, C: consumer use, A: article service life; P, C and A are highlighted in red to indicate widespread use with potential for exposure/release

[13] No product category was identified in the registration dossier. Based on the limited description of use provide it corresponds to PC 42: Electrolytes for batteries mixtures (liquids or pastes) with Industrial use.

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

Data extracted on 9 June 2022

EC / List number	RMOA	Authorisation		Restriction*	CLH	Actions not under REACH / CLP
		Candidate list	Annex XIV	Annex XVII	Annex VI (CLP)	
208-144-8					YES	

*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).