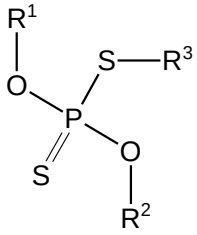
Assessment of regulatory needs

Authority: European Chemicals Agency (ECHA)

Date: 02/02/2022

Group Name: Thio alkyl acids and esters of dialkyldithiophosphates

General structure:

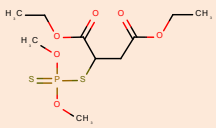
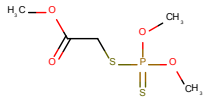
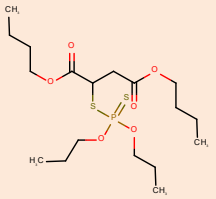
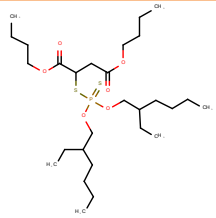
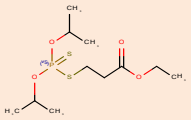


R^1= Alkyl
R^2= Alkyl (can be same as R^1)
R^3= Alkyl carboxylic acid/ester/salt

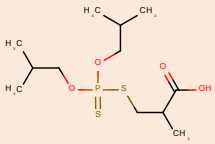
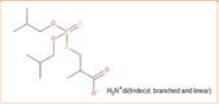
Revision history

Version	*Date*	*Description*
1	16/05/2022	

Substances within this group:

EC/List number	CAS number	Substance name	Chemical structures	Registration type (full, OSII or TII, NONS), highest tonnage band among all the registrations (t/y) [1]
204-497-7	121-75-5	Malathion		Not registered
212-058-6	757-86-8	Methyl [(dimethoxyphosphinothioyl)thio] acetate		OSII or TII
270-219-6	68413-47-8	Dibutyl [(dipropoxyphosphinothioyl)thio] succinate		Full, not (publicly) available
270-220-1	68413-48-9	Dibutyl [[bis[(2-ethylhexyl)oxy]phosphinothioyl]thio]succinate		Full, 10-100 ton/y
275-965-6	71735-74-5	Ethyl 3-[[bis(1-methylethoxy)phosphinothioyl]thio]propionate		Full, 100-1000 ton/y
300-340-2	93925-38-3	2-Propenoic acid, methyl ester, reaction products with mixed O,O-bis(branched and linear pentyl and iso-Bu) phosphorodithioates		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

434-070-2	268567-32-4	Propanoic acid, 3-[[bis(2-methylpropoxy)phosphinothioyl]thio]-2-methyl-		Full, 100-1000 ton/y Duplicate of 608-009-7 (not registered)
Not (publicly) available	Not (publicly) available	2-Propenoic acid, ethyl ester, reaction products with mixed substituted alkyl esters of phosphorodithioic acid and propylene oxide		Full, not (publicly) available
944-290-5	-	Reaction product of Propanoic acid, 3-[[bis(2-methylpropoxy)phosphinothioyl]thio]-2-methyl- and tridecanamine, N-tridecyl-, branched and linear		Full, not (publicly) available

This table contains also group members that are not registered (yet) but have a C&L notification under the CLP Regulation. However, the list is currently non-exhaustive. Once further regulatory risk management action on one or more registered substances is being considered, ECHA will make an additional search for related C&L notified substances to be included in the group and develop a regulatory strategy for them.

Contents

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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 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 voluntary, i.e., it is not part of the 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].

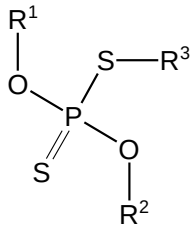
[2] https://echa.europa.eu/understanding-assessment-regulatory-needs

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 the alkylated (R^3) **dithiophosphate** moiety shown in the figure below. This group of substances is structurally related (because of the dithiophosphate moiety) to the group dialkyl (and diaryl) dithiophosphates (DDP) for which potential PBT properties have been identified for 3 members (EC/List 276-159-7, 434-280-4 and 700-768-3), and data generation is either proposed or already ongoing, and to the group zinc dialkyl (and diaryl) dithiophosphates (ZDDP) for which an assessment of regulatory needs is planned in the future.



R^1= Alkyl

R^2= Alkyl (can be same as R^1)

R^3= Alkyl carboxylic acid/ester/salt

The group consists of 9 substances: 7 have a full registration, 1 is only registered as transported or on-site isolated intermediate and 1 is not registered[3]. Out of the 9 group members, 6 are identified as mono-constituent (though one of them, having chiral centers should be considered to be more complex, i.e., multi-constituents) and 3 as UVCB.

Based on information reported in the REACH registration dossiers, all members registered according to Article 10 have a homogenous use profile. These substances are used in the formulation of lubricants or other technical fluids (e.g. hydraulic fluid, metalworking fluid) used by industrial and professional workers as well as consumers. Overall, there is a high potential for release to the environment and exposure for professional workers and consumers. Furthermore, exposure in the industrial setting is also considered likely due to high energy open processes and use of air dispersive techniques (e.g. industrial spraying).

It is worth noting that one substance (EC 204-497-7) while not REACH registered is approved as an active substance (organophosphorous insecticide) under the Plant Protection Products Regulation[4] (PPPR) and has a harmonised classification for skin sensitisation, aquatic toxicity and acute toxicity.

[3] Additionally, there is a duplicate created by the system because of technical practicalities.

[4] https://echa.europa.eu/ann-approved-act-subs-plant-prot-prods/-/legislationlist/details/EU-PLANT_PROTECTION-ANX_ACTIVE-100.004.089-VSK-09DEF3

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 hazard classification according to the CLP Regulation 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 regulatory risk management action at EU level

Based on information reported in the REACH registration dossiers, many of the substances in the group are self-classified for skin sensitisation properties and aquatic toxicity. In addition to skin sensitisation, one substance (List 944-290-5) is self-classified as STOT RE 2 due to effects on bone marrow (femur and sternum), liver, ileum and mesenteric lymph nodes; it is also a potential reprotoxicant and potential PBT/vPvB based on a constituent currently undergoing data generation. Two other members (EC 270-219-6, 270-220-1) also have potential PBT/vPvB properties and another two (EC/List 300-340-2 and "2-Propenoic acid, ethyl ester, reaction products with mixed substituted alkyl esters of phosphorodithioic acid and propylene oxide") have potential endocrine disruption properties for human health and environment. Due to variations in the chemical structure and composition between group members, no hazard trends were observed across the entire group; therefore, it was not feasible to extrapolate data on (eco)toxicological properties for most group members nor was it possible to assume potential substitution.

Based on currently available information, there is a need for EU regulatory risk management – namely **restriction** for EC/List 270-219-6, 270-220-1, 944-290-5 to address the potential PBT/vPvB hazard and potential for release to the environment and to address toxic to reproduction hazard for EC 944-290-5 for potential exposure of professional workers and consumers.

Based on ECHA's assessment of currently available hazard information, three members in the group fulfil the screening PBT criteria and therefore are considered as potential PBT/vPvB substances[5]. All three substances are not readily biodegradable and screen for P/vP properties; they have a log Kow above 4.5 indicating a potential for bioaccumulation; and based on available data, only one substance (List 944-290-5) currently fulfils the T criterion due to classification as STOT RE 2. However, further data generation is proposed for the

[5] Guidance on PBT/vPvB assessment

remaining two substances and may also result in T relevant classifications. For substance List 944-290-5, information provided on the substance itself is not sufficient to conclude on PBT/vPvB properties and there is no possibility to request data generation through compliance check due to the registered tonnage band. However, the substance is also considered as potential PBT/vPvB in addition to reprotoxicant due to a reported constituent (EC 309-798-8) that was assessed and concluded as such in the group secondary aliphatic amines; data generation on the constituent is currently ongoing to confirm PBT/vPvB and repro properties.

As a first step, the PBT/vPvB hazard potential will require further data generation to be clarified – a compliance check will be initiated for substances EC 270-219-6, 270-220-1 to request the relevant studies. For List 944-290-5, it is proposed to wait for the results of the ongoing data generation on the constituent to clarify the hazard for the substance.

The first step of the regulatory risk management action proposed, should the hazard exist, is the confirmation of hazard via SVHC identification and inclusion on the Candidate List as PBT and/or vPvB.

SVHC identification is required (Authorisation) or highly recommended for further regulatory processes under REACH (Restriction). In addition, SVHC identification brings immediate obligations for suppliers of the substances such as (i) supplying a safety data sheet and communicating on the safe use of the substances, (ii) responding to consumer requests within 45 days and (iii) notifying ECHA if the article they produce contains the substance above regulatory threshold. It is important to highlight that SVHC identification would not be needed for List 944-290-5 if the constituent is confirmed as PBT/vPvB; once this happens and the constituent is included in the Candidate list, any substance containing the constituent above 0.1% would be legally considered as PBT/vPvB itself. However, confirmation of the hazard properties via SVHC identification is not considered sufficient to minimise potential releases of the substances in the environment nor limit exposure of professional workers and consumers. A **restriction** is seen as the most appropriate option as potential for exposure is expected from the uses of the substances as lubricants (or other technical fluids) by professionals and consumers.

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. Furthermore, professional use is often widespread with relatively low levels of operational controls and risk management measures but with often frequent exposures with a long duration. In addition, professional users may be self-employed and therefore not covered by occupational safety and health (OSH) legislation.

Therefore, a **restriction of the substances as such or in mixtures (concentration limit in mixtures) used by professionals or consumers** is suggested after SVHC identification, with the aim to minimise exposures and emissions to humans and the environment.
The use of PBT and vPvB substances by consumers and professional workers has been recognised as an area of concern under the European Commission's Chemicals Strategy for Sustainability[6].

It is suggested to cover possibly also industrial uses as part of the restriction. However, the need for authorisation might be considered for industrial uses excluded from the scope of the restriction as it may not be proportionate to restrict all uses.

Based on currently available information, there is a need for EU regulatory risk management – namely **restriction** for EC/List 300-340-2 and "2-Propenoic acid, ethyl ester, reaction products with mixed substituted alkyl esters of phosphorodithioic acid and

[6] European Commission, *Chemical Strategy for Sustainability Towards a Toxic-Free Environment*, available at https://ec.europa.eu/environment/pdf/chemicals/2020/10/Strategy.pdf

propylene oxide" to address the ED HH and ENV hazard and the potential for worker and consumer exposure and releases to the environment.

Based on ECHA's assessment of currently available hazard information, both substances are considered potential endocrine disruptors for human health due to observable effects on the thyroid, and for one substance (EC 300-340-2) also the pituitary gland. There are no data available indicating environmental ED properties however the potential ED concern for human health may be equivalently applicable for other species in the environment, if confirmed. Other human health and environmental hazards are considered unlikely.

As a first step, the ED HH hazard potential will require further data generation to be clarified. A compliance check will be initiated for substance "2-Propenoic acid, ethyl ester, reaction products with mixed substituted alkyl esters of phosphorodithioic acid and propylene oxide", and for substance EC 300-340-2 substance evaluation is proposed as the most effective tool to clarify the ED HH properties.

The first step of the regulatory risk management action proposed, should the hazard exist, is the confirmation of hazard via SVHC identification and inclusion on the Candidate List as ED HH and/or ED ENV.

SVHC identification is required (Authorisation) or highly recommended for further regulatory processes under REACH (Restriction). In addition, SVHC identification brings immediate obligations for suppliers of the substances such as (i) supplying a safety data sheet and communicating on the safe use of the substances, (ii) responding to consumer requests within 45 days and (iii) notifying ECHA if the article they produce contains the substance above regulatory threshold. However, confirmation of the hazard properties via SVHC identification is not considered sufficient to minimise potential releases of the substances in the environment nor limit exposure of professional workers and consumers. A **restriction** is seen as the most appropriate option as potential for exposure is expected from the uses of the substances as lubricants (or other technical fluids) by professionals and consumers.

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. Furthermore, professional use is often widespread with relatively low levels of operational controls and risk management measures but with often frequent exposures with a long duration. In addition, professional users may be self-employed and therefore not covered by occupational safety and health (OSH) legislation.

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

Restriction of professional uses is preferred over authorisation as it is considered to be more efficient and effective to introduce controls at the level of placing on the market rather than at the level of uses.

In addition, the use of the most harmful substances by professional workers has been recognised as an area of concern under the European Commission's Chemicals Strategy for Sustainability[6] which aims to extend to professional users under REACH the level of protection granted to consumers.

Reported use descriptors (e.g. rolling, brushing, spraying) suggest that there is high potential for exposure also in the industrial setting, particularly via dermal absorption. Therefore, it is suggested to cover possibly also industrial uses as part of the restriction. However, the need for authorisation might be considered for industrial uses excluded from the scope of the restriction as it may not be proportionate to restrict all uses.

Based on currently available information, there is no need for (further) EU regulatory risk management for all other members in the group.

Substances EC 275-965-6 and 434-070-2 have widespread uses reported with potential for exposure for both human health and environment. Both are hazardous to the aquatic environment and EC 434-070-2 is in addition self-classified as a skin sensitiser. A compliance check will be opened for EC 275-965-6 to further clarify the hazard potential. For industrial and professional uses, sufficient and consistent self-classification by registrants should trigger adequate risk management measures according to workplace legislation. Adequate product labelling should in principle provide consumers with sufficient information to manage risks arising from the use of mixtures containing substance EC 434-070-2. However, 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.

One substance (EC 204-497-7) has a harmonised classification for skin sensitisation, aquatic toxicity and acute toxicity. It is only used as an organophosphorous insecticide and is already sufficiently regulated under the Plant Protection Products Regulation. For the remaining members, no further regulatory risk management action is currently proposed either due to a) unlikely hazard potential for both human health and environment b) or due to low release/exposure.

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
270-219-6, Dibutyl [(dipropoxyphosphinothioyl)thio] succinate **270-220-1, Dibutyl [[bis[(2-ethylhexyl)oxy]phosphinothioyl]thio] succinate** **944-290-5, Reaction product of Propanoic acid, 3-[[bis(2-methylpropoxy)phosphinothioyl]thio] -2-methyl- and tridecanamine, N-tridecyl-, branched and linear**	Known or potential hazard for skin sensitisation Known or potential hazard for STOT RE and reproductive toxicity for EC 944-290-5	Known or potential hazard for PBT/vPvB Known or potential hazard for aquatic toxicity *except* for EC 944-290-5	Widespread use as lubricant or other technical fluid. High potential for release to environment; high potential for consumer and worker (industrial and professional) exposure.	**Need for EU RRM: Restriction** Justification: Releases to the environment from consumer and widespread professional uses cannot be avoided. Widespread professional uses are typically non-contained and non-automated leading to releases to the environment. 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	**First step:** CCH for EC 270-219-6, 270-220-1 Wait for ongoing CCH on constituent (EC 309-798-8) for List 944-290-5 **Next steps (if hazard confirmed):** • SVHC identification • Restriction
300-340-2, 2-Propenoic acid, methyl ester, reaction products with mixed O,O-bis(branched and linear pentyl and iso-Bu) phosphorodithioates **2-Propenoic acid, ethyl ester, reaction products with mixed substituted alkyl esters of**	Known or potential hazard for ED	Known or potential hazard for ED			**First step:** CCH for 2-Propenoic acid, ethyl ester, reaction products with mixed substituted alkyl esters of phosphorodithioic acid and propylene oxide

Subgroup name, EC number, substance name	Human Health Hazard	Environmental Hazard	Relevant use(s) & exposure potential	Last foreseen action	Action
phosphorodithioic acid and propylene oxide				professional uses is preferred over authorisation as it is considered to be more efficient and effective to introduce controls at the level of placing on the market rather than at the level of uses. Industrial uses to be considered as part of the restriction.	SEV for EC 300-340-2 **Next steps (if hazard confirmed):** • SVHC identification • Restriction
275-965-6, Ethyl 3-[[bis(1-methylethoxy)phosphinothioyl]thio] propionate **434-070-2, Propanoic acid, 3-[[bis(2-methylpropoxy)phosphinothioyl]thio]-2-methyl-**	Known or potential hazard for skin sensitisation for EC 434-070-2	Known or potential hazard for aquatic toxicity	Widespread use as lubricant or other technical fluid. High potential for release to environment; high potential for consumer and worker (industrial and professional) exposure.	**Currently no need for EU RRM** Justification: Sufficient and consistent self-classification by registrants should trigger adequate risk management measures according to workplace legislation. Proper labeling should ensure safe use by consumers. Discussions with MS are ongoing around the concern related to skin sensitisers (potentially) present in consumer mixtures and the need to further investigate whether further regulatory actions are needed.	**First step:** No action *CCH for EC 275-965-6 to confirm unlikely hazard*

Subgroup name, EC number, substance name	Human Health Hazard	Environmental Hazard	Relevant use(s) & exposure potential	Last foreseen action	Action
212-058-6, Methyl [(dimethoxyphosphinothioyl)thio] acetate	No hazard or unlikely hazard	No hazard or unlikely hazard	Unlikely release and exposure potential - registered under Article 17/18 (intermediate use under strictly controlled conditions)	**Currently no need for EU RRM** Justification: Unlikely hazard potential or low release/exposure	
204-497-7, Malathion	Known or potential hazard for skin sensitisation	Known or potential hazard for aquatic toxicity	Active substance in plant protection products.	**Currently no need for EU RRM** Justification: Sufficiently regulated under PPPR.	

Annex 1: Harmonised classifications and self-classifications reported by registrants

Data extracted on 30/10/2021.

EC/ List No	CAS No	Substance name	Harmonised classification	Classification in registrations	Classification in C&L notifications (*)
204-497-7	121-75-5	Malathion	Acute Tox 4* (H302) Skin Sens 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	*n.a.*	Acute Tox. 1 H330[1 out of 15] Aquatic Chronic 1 H410[11 out of 15] Skin Sens. 1 H317[12 out of 15] Aquatic Acute 1 H400[4 out of 15] Acute Tox. 4 H302[14 out of 15] Aquatic Acute 1 H400, M-factor: 100.00[2 out of 15] Acute Tox. 3 H301[1 out of 15] Aquatic Acute 1 H400, M-factor: 1000.00[9 out of 15] Acute Tox. 3 H331[1 out of 15]
212-058-6	757-86-8	Methyl [(dimethoxyphosphinothioyl)thio]acetate	*Not included in Annex VI*		
270-219-6	68413-47-8	Dibutyl [(dipropoxyphosphinothioyl)thio]succinate	*Not included in Annex VI*	Skin Sens. 1B H317 Aquatic Acute 2 H401 Aquatic Chronic 2 H411	
270-220-1	68413-48-9	Dibutyl [[bis[(2-ethylhexyl)oxy]phosphinothioyl]thio]succinate	*Not included in Annex VI*	Skin Sens. 1B H317 Aquatic Chronic 4 H413	
275-965-6	71735-74-5	Ethyl 3-[[bis(1-methylethoxy)phosphinothioyl]thio]propionate	*Not included in Annex VI*	Aquatic Chronic 2 H411	

				Notified: Aquatic Chronic 3 H412[2 out of 5]	
300-340-2	93925-38-3	2-Propenoic acid, methyl ester, reaction products with mixed O,O-bis(branched and linear pentyl and iso-Bu) phosphorodithioates	*Not included in Annex VI*		
434-070-2	268567-32-4	Propanoic acid, 3-[[bis(2-methylpropoxy) phosphinothioyl]thio]-2-methyl-	*Not included in Annex VI*	Eye Damage 1 H318 Skin Sens. 1B H317 Aquatic Chronic 3 H412	
-	-	2-Propenoic acid, ethyl ester, reaction products with mixed substituted alkyl esters of phosphorodithioic acid and propylene oxide	*Not included in Annex VI*		
944-290-5	-	Reaction product of Propanoic acid, 3-[[bis(2-methylpropoxy) phosphinothioyl]thio]-2-methyl- and tridecanamine, N-tridecyl-, branched and linear	*Not included in Annex VI*	Skin Irrit. 2 H315 Skin Sens. 1B H317 STOT Rep. Exp. 2 H373, affected organs: mesenteric lymph nodes, liver, spleen	

(*) 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 13/10/2021.

Main types of applications structured by product or article types	EC/List 270-219-6	EC/List 270-220-1	EC/List 275-965-6	EC/List 300-340-2	EC/List 434-070-2	2-Propenoic acid, ethyl ester, reaction products with mixed substituted alkyl esters of phosphorodithioic acid and propylene oxide	EC/List 944-290-5
PC 35: Washing and cleaning products				F, I, **P**			
PC 24: Lubricants, greases, release products	F, I, **P**, **C**	F, I, **P**, **C**	F, I, **P**, **C**	F, I, **P**, **C**	F, I, **P**, **C**	F, I, **P**, **C**	F, I, **P**, **C**
PC 25: Metal working fluids	F, I	F, I, **P**	F, I, **P**	I, **P**	F, I, **P**		
PC 16: Heat transfer fluids			I, **P**		I, **P**		F, I, **P**
PC 17: Hydraulic fluids	F, I, **P**, **C**	F, I, **P**, **C**	F, I, **P**		F, I, **P**		F, I, **P**
PC 21: Laboratory chemicals	F	F	F	F	F		F

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

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

Data extracted on 27/10/2021.

EC / List number	RMOA	Authorisation		Restriction*	CLH	Actions not under REACH / CLP
		Candidate list	Annex XIV	Annex XVII	Annex VI (CLP)	
204-497-7					YES	PPP

* 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.