Assessment of regulatory needs

Authority: European Chemicals Agency (ECHA)

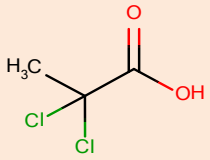
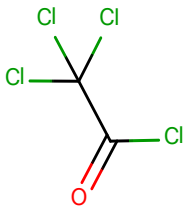
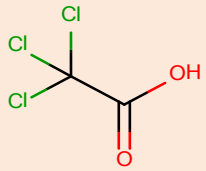
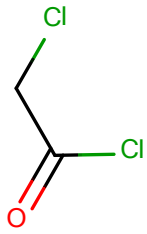
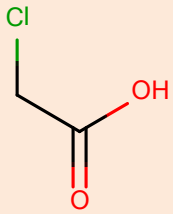
Date: 11/04/2022

Group Name: GMT 308 Alpha-chloro aliphatic carboxylate derivatives

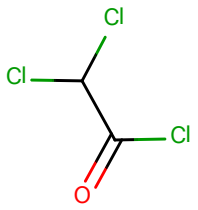
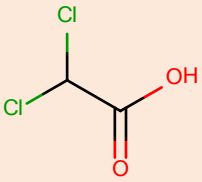
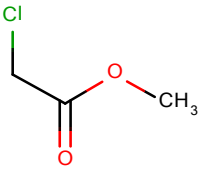
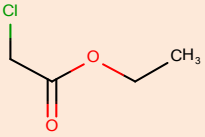
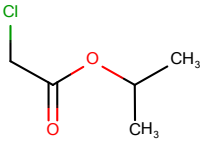
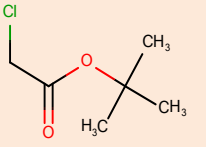
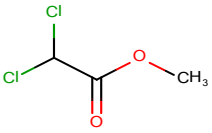
Revision history

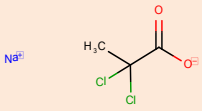
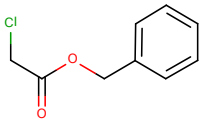
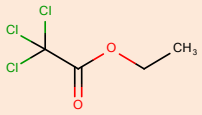
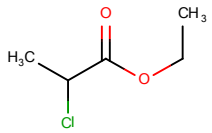
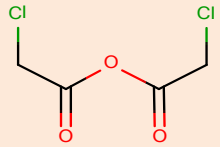
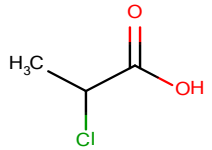
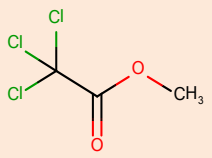
Version	*Date*	*Description*
1.0	01/07/2022	

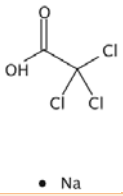
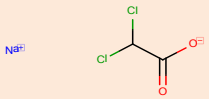
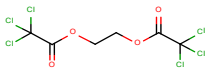
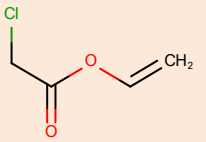
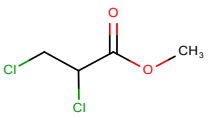
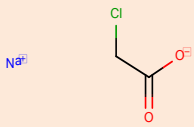
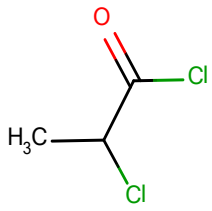
Substances within this group:

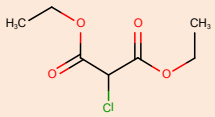
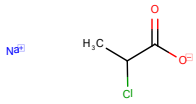
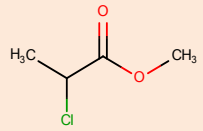
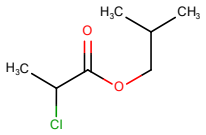
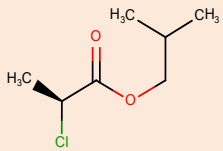
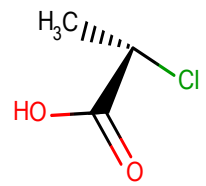
EC / List number	CAS number	Substance name [and / or Substance name acronyms]	Chemical structures	Registration type (full, OSII or TII, NONS), highest tonnage band among all the registrations (t/y) [1]
200-923-0	75-99-0	2,2-dichloropropionic acid		C&L notification
200-926-7	76-02-8	trichloroacetyl chloride		Full, not (publicly) available
200-927-2	76-03-9	trichloroacetic acid		Full, 100-1000
201-171-6	79-04-9	chloroacetyl chloride		OSII or TII
201-178-4	79-11-8	chloroacetic acid [CA]		Full, >1000

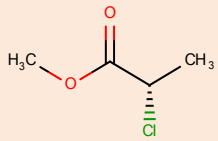
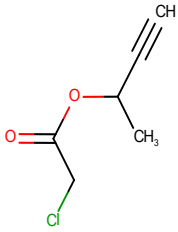
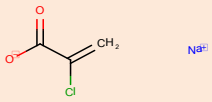
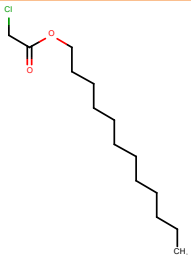
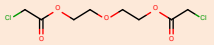
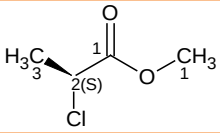
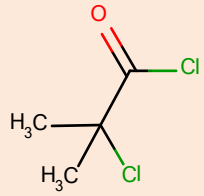
[1] Note that the total aggregated tonnage band may be available on ECHA's webpage at https://echa.europa.eu/information-on-chemicals/registered-substances

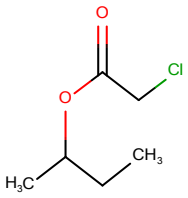
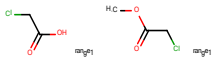
EC / List number	CAS number	Substance name [and / or Substance name acronyms]	Chemical structures	Registration type (full, OSII or TII, NONS), highest tonnage band among all the registrations (t/y) [1]
201-199-9	79-36-7	dichloroacetyl chloride		OSII or TII
201-207-0	79-43-6	dichloroacetic acid [(DCA]		Full, 100-1000
202-501-1	96-34-4	methyl chloroacetate		Full, not (publicly) available
203-294-0	105-39-5	ethyl chloroacetate		Full, not (publicly) available
203-301-7	105-48-6	isopropyl chloroacetate		C&L notification
203-506-1	107-59-5	tert-butyl chloroacetate		OSII or TII
204-146-8	116-54-1	methyl dichloroacetate		OSII or TII

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]
204-828-5	127-20-8	sodium 2,2-dichloropropionate		C&L notification
205-400-0	140-18-1	phenylmethyl chloroacetate		OSII or TII
208-212-7	515-84-4	ethyl trichloroacetate		OSII or TII
208-610-0	535-13-7	ethyl 2-chloropropionate		OSII or TII
208-794-2	541-88-8	chloroacetic anhydride		OSII or TII
209-952-3	598-78-7	2-chloropropionic acid		OSII or TII
209-960-7	598-99-2	methyl trichloroacetate		OSII or TII

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]
211-479-2	650-51-1	TCA		Full, not (publicly) available
218-461-3	2156-56-1	sodium dichloroacetate		C&L notification
219-732-9	2514-53-6	ethylene bis(trichloroacetate)		C&L notification
219-834-3	2549-51-1	vinyl chloroacetate		Full, not (publicly) available
222-940-2	3674-09-7	methyl 2,3-dichloropropionate		OSII or TII
223-498-3	3926-62-3	sodium chloroacetate		Full, >1000
231-540-7	7623-09-8	2-chloropropionyl chloride		OSII or TII

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]
237-913-0	14064-10-9	diethyl chloromalonate		OSII or TII
241-067-8	16987-02-3	sodium 2-chloropropionate		Not registered
241-624-5	17639-93-9	methyl 2-chloropropionate		OSII or TII
263-411-6	62108-67-2	isobutyl 2-chloropropionate		Not registered
280-349-5	83261-15-8	isobutyl (S)-2-chloropropionate		OSII or TII
411-150-5	29617-66-1	(S)-2-chloropropionic acid		NONS

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]
412-470-8	73246-45-4	(S)-methyl-2-chloropropionate		NONS
415-140-1	-	BUCA		NONS
608-818-5	32997-86-7	sodium;2-chloroprop-2-enoate;hydrate		Full, not (publicly) available
613-168-0	6316-04-7	Acetic acid, 2-chloro-, dodecyl ester		OSII or TII
619-642-3	106-78-5	diethyleneglycyl bis (chloroacetate)		Full, not (publicly) available
625-379-5	73246-45-4	(-)-Methyl (S)-2-chloropropionate		C&L notification
687-783-8	13222-26-9	2-Chloro-2-methylpropanoyl chloride		OSII or TII

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]
691-865-9	17696-64-9	Chloro-acetic acid sec-butyl ester		OSII or TII
700-306-0	383412-05-3	1-methylhexyl chloroacetate		OSII or TII
930-964-6	-	Reaction mass of methyl chloroacetate and chloroacetic acid		Cease manufacture

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 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

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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 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 42 structurally similar substances based on the presence of (alpha) chlorine that is attached to the first carbon of the functional carboxyl group.

The group consists of mono-constituent substances, except for List number 930-964-6 which is a multi-constituent. The registration status of the substances is the following: 11 with full (Article 10) registrations, 6 with C&L notifications, 22 intermediate registrations, 3 NONS, 2 not registered and 1 ceased manufacture.

Chlorinated acetic acids are important intermediates in organic synthesis because of the ease of substitution of the Cl atoms.[3]

Based on information reported in the REACH registration dossiers, the substances in the group are mainly used as intermediates. 22 of the 33 registered substances have only onsite/transported intermediate registrations, and 6 of the remaining 11 with full registrations have only intermediate uses. The substances with intermediate registrations or uses have low potential for exposure.

There are additional uses for the other 5 substances (of the 11 with full registrations), with 3 of them (EC: 201-178-4, 201-207-0 and 200-927-2) mainly used in pharmaceuticals, lab chemicals, polymer preparations and compounds, coatings/adhesives/fillers, biocides, plant protection products, fertilisers, washing and cleaning products, and cosmetics. For these acids there are salts (EC 223-498-3, 218-461-3 and 211-479-2), which might have common uses in some cases (although not indicated in the registrations, there is substitution potential), and similar hazard profiles.

The 3 substances (EC 201-207-0, 201-178-4, and 200-927-2) also have professional uses across several use categories. EC 219-834-3 also indicates professional use as monomer and article service life, for which exposure cannot be excluded[4]. However, the registration for EC 219-834-3 describes the use of a polymer by professional workers in which the EC 219-834-3 is present as a monomer residue <0.1%.

One substance, EC 201-178-4, indicates potential consumer exposure via cosmetics.

Finally, EC 211-479-2 has 3 registrations indicating industrial use as an auxiliary for dyes. Although certain activities that describe the use are in “closed systems” (described by PROCs 1, 2 and 3 in the registrations), there are activities such as mixing (PROC 5), industrial spraying (PROC 7), and transfers at non-dedicated facilities (PROC 8a). This means that although there are measures in place at industrial sites, such as local exhaust ventilation, there is certainly the potential for exposure during the use.

[3] https://doi.org/10.1002/14356007.a06_537.pub3

[4] The use is described in the registration dossier by activities such as transfers at non-dedicated facilities (PROC 8a), processing of mixtures into a defined shape e.g. extrusion (PROC 14) and handling transfer of massive objects e.g. manual cutting (PROC 21).

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 regulatory risk management action at EU level

Based on currently available information, there is a need for (further) EU regulatory risk management – Restriction for potential reproductive toxicity hazards due to the potential for release/exposure of the substances: acids EC: 201-178-4, 201-207-0 and 200-927-2 indicate professional uses across several use categories. Restriction should also be applied to the salts: EC 223-498-3, 218-461-3 and 211-479-2 on the basis of substitution potential.

Available information existing mostly for higher tonnage substances, 100-1000 tonnes/year or more, (EC 201-178-4, 201-207-0, 200-927-2, 223-498-3 and 211-479-2) indicates that the substances in this group have potential for developmental reproductive toxicity, more specifically developmental effects on the cardiovascular system. Dichloroacetic acid (DCA; EC 201-207-0) is already self-classified as Repr. 1B, while chloroacetic acid (EC 201-178-4), trichloroacetic acid (TCA; EC 200-927-2) and EC 211-479-2 are potentially reprotoxic, (developmental cardiotoxicity), and CCH is proposed to clarify the hazard. Based on these observations, the other members of the group with no available information, should be regarded as potentially having the same hazard for developmental reproductive toxicity.

Signs of neurotoxicity were observed in studies performed with EC 209-952-3, 411-150-5 (read-across from EC 209-952-3) and EC 280-349-5 (2-chloropropionates and 2,2-dichloropropionates). Additionally, existing self-classification as STOT SE 1 (neurotoxicity) for EC 608-818-5, STOT RE 1 for EC 201-171-6 and STOT RE 2 for ECs 201-207-0, 209-952-3, 241-624-5, 411-150-5 and 412-470-8. DCA has also

a self-classification as Carc. 2 and some indications for carcinogenicity exist for TCA, which currently is not classified. There are certain acid and salt pairs (monochloro: EC 201-178-4 and 223-498-3; dichloro: EC 201-207-0 and 218-461-3; trichloro: EC 200-927-2 and 211-479-2). The salts have similar hazard profiles to the acids so are potentially reprotoxic.

Currently available environmental fate and hazard information indicates that all registered substances in the group are unlikely to meet PBT/vPvB and ED criteria. The conclusions on PBT/vPvB are based on the following: a relatively large number of substances in the group are not readily biodegradable. Further, bioaccumulation potential of all mono, di and trichloroacetates is low with some remaining uncertainty. This is based on very low either measured or QSAR estimated logKow and/or BCF values. On the other hand, environmental hazards have already been identified for most of the substances as they have either harmonised classification or are self-classified for environmental hazards.

Three trichloroacetates (EC 200-927-2, 211-479-2 and 200-926-7) are considered potentially persistent (data inconclusive) in the environment. Also, they are expected to be mobile in the environment since the substances are very soluble in water and the reported Koc values are very low (logKoc < 0.5) with some uncertainty. Furthermore, the available information on aquatic toxicity indicates potentially high toxicity to algae. However, further data generation is needed to confirm persistence, mobility and toxicity of substances in this group.

CCH is proposed for five substances (EC 219-834-3, 200-927-2, 201-178-4, 201-207-0 and 211-479-2) to clarify potential hazards through data generation (i.e. data for reproductive toxicity, environmental classification and to confirm unlikely PBT/vPvB properties).

The 3 substances EC 201-178-4, 201-207-0 and 200-927-2 have professional uses across several use categories (cosmetics, pharmaceuticals, polymer preparations, adhesives, pH regulators etc.). These professional uses are expected to be widespread (at many sites and by many users). 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 (e.g. make-up artists) and therefore not covered by occupational safety and health (OSH) legislation.

Therefore, should hazards be confirmed a **restriction of the substances as such or in mixtures used by professionals** is proposed. Harmonised classification is suggested prior to restriction, as this would help control the use of EC 201-178-4 in cosmetics. Although at least one registrant indicates cosmetics use for EC 200-927-2, the substance is already prohibited in cosmetics (Regulation EC No. 1223/2009; Annex II (prohibited substances); entry 10).

Restriction of professional uses is preferred over authorisation as it is considered to be more efficient and effective to introduce controls for substances at the level of the 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[5] which aims to extend to professional users under REACH the level of protection granted to consumers.

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

The substances above are acids that have salt pairs (EC 223-498-3, 218-461-3 and 211-479-2). The salts, EC 223-498-3 and EC 211-479-2, do not have professional uses in their registration dossiers and EC 218-461-3 only has a C&L notification, however the structures indicate substitution potential at least for some professional uses. Therefore, to avoid regrettable substitution, the restriction should also cover these salts.

The restriction may also address industrial uses, such as the industrial use of EC 211-479-2 as an auxiliary for dyes. Alternatively, further actions such as an EU wide OEL or authorisation may be considered. The acids: EC 201-178-4[6], EC 201-207-0[7] and EC 200-927-2[8] have national occupational exposure limits (OELs) in some EU Member States, and the salt EC 211-479-2 has an OEL (8 hours: 2 mg/m^3) in Germany. These substances have industrial uses across several use categories (similar to the professional uses) which would be controlled in the countries where there is a national OEL, but not on the EU level, so the derivation of an EU wide OEL could be considered. There is also an EU RAR (2005) for EC 201-178-4[9] which concluded that further testing was needed for human health, and there was a need to limit the risks for both humans and the environment.

Based on currently available information, there is no need for EU regulatory risk management for the remaining substances in the group mainly due to the low potential for exposure as they are intermediate registrations or only have intermediate (or monomer) uses.

There is no evidence for substitution potential across the majority of the group, except for few acid and salt pairs already mentioned. The only common use, associated with the group structure, is the intermediate use (due to the ease of substitution of the Cl atoms). The concern for reprotoxicity (developmental cardiotoxicity) that is identified for mono, di and tri chloroacetates is extrapolated to the other subgroups based on structural similarity, with some uncertainty due to the lack of available studies.

The single registration for EC 219-834-3 (vinyl chloroacetate, VCA) indicates “Use of polymer by professional workers (VCA monomer residue < 0.1%)” and article service life of the same polymer. EC 219-834-3 is self-classified as Carcinogenic category 2 H351, Mutagenic category 2 H341. This use is of potential concern as VCA is expected to undergo rapid hydrolysis in the stomach and small intestines to acetaldehyde and chloroacetic acid, with evidence that both degradation products will be rapidly absorbed in the gastrointestinal tract. Acetaldehyde has a harmonised classification as Carcinogenic category 1B H350, Mutagenic 2 H341. However, since the concentration of EC 219-834-3 in the polymer is registered <0.1% and seems correctly classified as carcinogenic category 2, it is concluded unnecessary to propose a harmonised classification on the substance itself, or to initiate a restriction. Hence, no EU regulatory action is proposed.

[6] National OELs (8 hour) for EC 210-178-4: 4 mg/m^3 (AU), 2 mg/m^3 (BE), 2 mg/m^3 (DE), 1 mg/m^3 (IE), 1 mg/m^3 (LV), 2 mg/m^3 (PL) and 4 mg/m^3 (SE).

[7] National OELs (8 hour) for EC 201-207-0: 2.7 mg/m^3 (AU), 1.1 mg/m^3 (DE) and 4 mg/m^3 (LV).

[8] National OELs (8 hour) for EC 200-927-2: 5 mg/m^3 (AU), 6.8 mg/m^3 (BE), 1 mg/m^3 (DK), 5 mg/m^3 (FR), 1.4 mg/m^3 (DE), 5 mg/m^3 (IE), 5 mg/m^3 (LV), 2 mg/m^3 (PL) and 6.8 mg/m^3 (ES).

[9] https://echa.europa.eu/documents/10162/fb9a3c57-d7c8-41cd-b2b7-91469d6029d8

For two substances (monochloroacetate EC 223-498-3 and trichloroacetate EC 200-926-7) CCH is proposed to clarify possible environmental hazards (EC 223-498-3 is the sodium salt pair of EC 201-178-4).

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
201-178-4, 200-927-2, 201-207-0, 223-498-3, 211-479-2, 218-461-3	Known or potential hazard for reproductive toxicity EC 201-207-0 for carcinogenicity for STOT RE	Known or potential hazard for aquatic toxicity	EC: 201-178-4, 200-927-2, 201-207-0 and 223-498-3 indicate industrial and/or professional uses in pharmaceuticals, lab chemicals, polymer preparations, coatings/adhesives/fillers; biocides, plant protection products, fertilisers, washing and cleaning products, and cosmetics with potential for exposure EC 201-178-4 indicates potential consumer exposure in cosmetics (also EC 200-972-2 has professional use in cosmetics).	**Need for EU RRM: Restriction** <u>Justification:</u> Professional use is typically widespread (at many sites and many users) with relatively low levels of operational controls and risk management measures but with typically frequent exposures with a long duration. Widespread professional uses are also typically non-contained and non-automated leading	**First step:** CCH **Next steps (if hazard confirmed):** CLH followed by Restriction

Subgroup name, EC number, substance name	Human Health Hazard	Environmental Hazard	Relevant use(s) & exposure potential	Last foreseen action	Action
			EC 211-479-2 indicates only industrial use as auxiliary in dyes. EC 218-461-3 is only C&L Notified	to releases to the environment. Exposure to industrial workers due to activities such as industrial spraying (for EC 211-479-2), and potential releases to environment. Industrial uses to be considered as part of the restriction, however if not addressed authorisation or an EU-wide OEL could be considered. Lastly the CLH would help control the use of EC 201-178-4 in cosmetics.	
219-834-3	Known or potential hazard for carcinogenicity for mutagenicity	Known or potential hazard for aquatic toxicity	Use of polymer by professional workers (VCA monomer residue <0.1%)" and article service life	**Currently no need for EU RRM** Justification:	CCH

Subgroup name, EC number, substance name	Human Health Hazard	Environmental Hazard	Relevant use(s) & exposure potential	Last foreseen action	Action
	for reproductive toxicity			Although potential exposure for professional workers (and possibly consumers via articles), and the environment, due to the low concentration of the substance in the polymer and likely correct self-classification as carcinogenic category 2, no further action is proposed. CCH will clarify the environmental hazard and eventually trigger the implementation of necessary RRMs sufficient to ensure safe use at the workplace.	

Subgroup name, EC number, substance name	Human Health Hazard	Environmental Hazard	Relevant use(s) & exposure potential	Last foreseen action	Action
200-926-7	Known or potential hazard for reproductive toxicity	Known or potential hazard for aquatic toxicity	Intermediate registrations and industrial intermediate use meaning no or low exposure potential.	**Currently no need for EU RRM** Justification: No or low exposure potential, however substance is not classified and CCH will clarify the environmental hazard and eventually trigger the implementation of necessary RRMs sufficient to ensure safe use at the workplace.	CCH to clarify aquatic toxicity information and read across
200-923-0, 201-171-6, 201-199-9, 202-501-1, 203-294-0, 203-301-7, 203-506-1, 204-146-8, 204-828-5, 205-400-0, 208-212-7, 208-610-0, 208-794-2, 209-952-3, 209-960-7, 219-732-9, 222-940-2, 231-540-7,	Known or potential hazard for reproductive toxicity Known or potential hazard for STOT RE	Known or potential hazard for aquatic toxicity	Mainly intermediate registrations with some industrial intermediate uses meaning no or low exposure potential. The rest being C&L notifications.	**Currently no need for EU RRM** Justification: No or low exposure potential.	No action

Subgroup name, EC number, substance name	Human Health Hazard	Environmental Hazard	Relevant use(s) & exposure potential	Last foreseen action	Action
237-913-0, 241-067-8, 241-624-5, 263-411-6, 280-349-5, 411-150-5, 412-470-8, 415-140-1, 608-818-5, 613-168-0, 619-642-3, 625-379-5, 687-783-8, 691-865-9, 700-306-0, 930-964-6.	Neurotoxicity for EC 201-171-6, 209-952-3, 241-624-5, 411-150-5, 412-470-8, 608-818-5, 208-610-0, 231-540-7, 241-067-8, 241-624-5, 263-411-6, 625-379-5, 200-923-0, 204-828-5				

Annex 1: Overview of classifications

Data extracted on 28/01/2022.

EC / List No	CAS No	Substance name	Harmonised classification	Classification in registrations	Classification in C&L notifications (*)
203-506-1	107-59-5	tert-butyl chloroacetate		Flam. Liquid 3 H226 [intermediate (active)] Acute Tox. 4 H312 [intermediate (active)] Eye Irrit. 2 H319 [intermediate (active)] Acute Tox. 3 H331 [intermediate (active)] Acute Tox. 4 H302 [intermediate (active)] Skin Irrit. 2 H315 [intermediate (active)]	Aquatic Chronic 1 H410[2 out of 8] Skin Corr. 1B H314[3 out of 8] Aquatic Acute 1 H400[2 out of 8] STOT Single Exp. 3 H335, affected organs: resp. system[1 out of 8] Skin Sens. 1 H317[1 out of 8] Acute Tox. 4 H332[1 out of 8]
222-940-2	3674-09-7	methyl 2,3-dichloropropionate		Eye Irrit. 2 H319 [intermediate (active)] STOT Single Exp. 3 H335, affected organs: Respiratory system [intermediate (active)] Acute Tox. 3 H301 [intermediate (active)] Skin Irrit. 2 H315 [intermediate (active)]	Skin Corr. 1C H314[3 out of 6] Eye Damage 1 H318[1 out of 6] Muta. 2 H341[1 out of 6]
619-642-3	106-78-5	619-642-3		Acute Tox. 2 H300 Acute Tox. 4 H312 Eye Irrit. 2 H319 Aquatic Acute 1 H400, M-factor: 10.00 Aquatic Chronic 1 H410	Acute Tox. 3 H301[1 out of 1]
613-168-0	6316-04-7	613-168-0		Skin Irrit. 2 H315 [intermediate (active)] Acute Tox. 4 H302 [intermediate (active)] Eye Irrit. 2 H319 [intermediate (active)]	-
202-501-1	96-34-4	methyl chloroacetate	Flam. Liq. 3, Acute Tox. 3, Acute Tox. 3, STOT SE 3, Skin Irrit. 2, Eye Dam. 1	Flam. Liquid 3 H226 Acute Tox. 3 H301 Acute Tox. 2 H310 Acute Tox. 2 H330 Skin Irrit. 2 H315 Eye Damage 1 H318 Skin Sens. 1 H317 Aquatic Acute 1 H400 STOT Single Exp. 3 H335, affected organs: Respiratory tract	STOT Single Exp. 3 H335, affected organs: organs[1 out of 21] Acute Tox. 3 H331[16 out of 21] STOT Single Exp. 3 H335[16 out of 21]
203-301-7	105-48-6	isopropyl chloroacetate	Flam. Liq. 3, Acute Tox. 3, STOT SE 3,	-	STOT Single Exp. 3 H335, affected organs: organs[1 out of 2] Skin Irrit. 2 H315[1 out of 2]

EC / List No	CAS No	Substance name	Harmonised classification	Classification in registrations	Classification in C&L notifications (*)
			Skin Irrit. 2, Eye Irrit. 2		Acute Tox. 3 H301[1 out of 2] Flam. Liquid 3 H226[1 out of 2] Eye Irrit. 2 H319[1 out of 2]
218-461-3	2156-56-1	sodium dichloroacetate		-	Carc. 2 H351[2 out of 11] Skin Irrit. 2 H315[6 out of 11] STOT Single Exp. 3 H335, affected organs: Respiratory system[1 out of 11] Eye Irrit. 2 H319[6 out of 11] STOT Single Exp. 3 H335, affected organs: lungs[2 out of 11] Repr. 2 H361[1 out of 11] STOT Single Exp. 3 H335[2 out of 11]
201-199-9	79-36-7	dichloroacetyl chloride	Skin Corr. 1A, Aquatic Acute 1	Carc. 1B H350 [intermediate (active)] Skin Corr. 1A H314 [intermediate (active)] Aquatic Acute 1 H400 [intermediate (active)]	Carc. 1A H350[1 out of 14] Eye Damage 1 H318[1 out of 14] Flam. Liquid 3 H226[1 out of 14]
237-913-0	14064-10-9	diethyl chloromalonate		Acute Tox. 4 H302 [intermediate (active)] Aquatic Chronic 2 H411 [intermediate (active)] Eye Irrit. 2 H319 [intermediate (active)]	Acute Tox. 3 H301[1 out of 6] Aquatic Chronic 1 H410[1 out of 6] Aquatic Acute 1 H400[1 out of 6] STOT Single Exp. 3 H335[2 out of 6] Skin Corr. 1B H314[2 out of 6] Eye Damage 1 H318[2 out of 6] Eye Irrit. 2A H319[1 out of 6]
687-783-8	13222-26-9	2-Chloro-2-methylpropanoyl chloride		Skin Corr. 1B H314 [intermediate (active)] Flam. Liquid 3 H226 [intermediate (active)]	Skin Corr. 1A H314[1 out of 2]
700-306-0	383412-05-3	1-methylhexyl chloroacetate		Acute Tox. 4 H302 [intermediate (active)] Aquatic Acute 1 H400 [intermediate (active)] Aquatic Chronic 1 H410 [intermediate (active)]	Aquatic Chronic 3 H412[1 out of 2] Eye Irrit. 2 H319[1 out of 2] Skin Sens. 1B H317[1 out of 2] Skin Irrit. 2 H315[1 out of 2] STOT Single Exp. 3 H335[1 out of 2] Aquatic Acute 1 H400, M-factor: 10.00[1 out of 2]
200-927-2	76-03-9	trichloroacetic acid	Skin Corr. 1A, Aquatic Acute 1, Aquatic Chronic 1	Skin Corr. 1A H314 Aquatic Chronic 1 H410	Aquatic Chronic 2 H411[1 out of 42] Eye Irrit. 2 H319[1 out of 42] STOT Single Exp. 3 H335, affected organs: Respiratory organs, specific concentration: >=1[1 out of 42] STOT Single Exp. 3 H335, affected organs: Respiratory tract[1 out of 42] Aquatic Acute 1 H400[38 out of

EC / List No	CAS No	Substance name	Harmonised classification	Classification in registrations	Classification in C&L notifications (*)
					42] STOT Single Exp. 3 H335, affected organs: respiratory system, specific concentration: >=1[1 out of 42] Skin Corr. 1B H314[1 out of 42] Acute Tox. 4 H302[1 out of 42]
208-610-0	535-13-7	ethyl 2-chloropropionate		Eye Irrit. 2 H319 [intermediate (active)] Skin Irrit. 2 H315 [intermediate (active)] STOT Single Exp. 3 H335 [intermediate (active)] Flam. Liquid 3 H226 [intermediate (active)]	-
208-794-2	541-88-8	chloroacetic anhydride		Aquatic Acute 1 H400 [intermediate (active)] Skin Corr. 1B H314 [intermediate (active)] Acute Tox. 3 H331 [intermediate (active)] Acute Tox. 3 H301 [intermediate (active)] Acute Tox. 3 H311 [intermediate (active)]	Eye Damage 1 H318[1 out of 4] Skin Sens. 1 H317[1 out of 4]
200-926-7	76-02-8	trichloroacetyl chloride		Acute Tox. 1 H330 [intermediate (active)] Skin Corr. 1 H314 [intermediate (active)] Acute Tox. 4 H302 Skin Corr. 1B H314 Eye Damage 1 H318	STOT Single Exp. 3 H335, affected organs: respiratory system[1 out of 13] Met. Corr. 1 H290[4 out of 13] Eye Irrit. 2 H319[1 out of 13] Skin Irrit. 2 H315[1 out of 13] Skin Corr. 1A H314[8 out of 13] Acute Tox. 2 H330[6 out of 13]
608-818-5	32997-86-7	608-818-5		Acute Tox. 3 H301 Acute Tox. 3 H311 Acute Tox. 3 H331 Skin Sens. 1 H317 STOT Single Exp. 1 H370, affected organs: Optic nerve (nervus opticus), central nervous system	Skin Irrit. 2 H315[1 out of 1] Eye Irrit. 2 H319[1 out of 1]
200-923-0	75-99-0	2,2-dichloropropionic acid		-	Acute Tox. 4 H332[2 out of 8] Skin Irrit. 2 H315[8 out of 8] Eye Damage 1 H318[8 out of 8] Aquatic Chronic 3 H412[8 out of 8] Acute Tox. 4 H302[4 out of 8]
208-212-7	515-84-4	ethyl trichloroacetate		Acute Tox. 4 H302 [intermediate (inactive)] Skin Irrit. 2 H315	STOT Single Exp. 3 H335, affected organs: Respiratory system[1 out of 3] STOT Single Exp. 3 H335[1 out of 3]

EC / List No	CAS No	Substance name	Harmonised classification	Classification in registrations	Classification in C&L notifications (*)
				[intermediate (inactive)]	Acute Tox. 4 H312[1 out of 3] Eye Irrit. 2 H319[3 out of 3] Acute Tox. 4 H332[1 out of 3]
691-865-9	17696-64-9	691-865-9		STOT Single Exp. 3 H335, affected organs: Respiratory tract [intermediate (active)] Skin Irrit. 2 H315 [intermediate (active)] Eye Irrit. 2 H319 [intermediate (active)] Skin Sens. 1 H317 [intermediate (active)]	-
201-207-0	79-43-6	dichloroacetic acid	Skin Corr. 1A, Aquatic Acute 1	Carc. 2 H351 Repr. 1B H360, specific effect:reduced viable sperm production soft tissue abnormalities Met. Corr. 1 H290 Acute Tox. 3 H311 Skin Corr. 1A H314 Eye Damage 1 H318 Effect on or via lactation H362 STOT Rep. Exp. 2 H373, affected organs: BRAIN, LIVER, TESTES Aquatic Acute 1 H400	Aquatic Chronic 1 H410[1 out of 39] Repr. 1B H360, specific effect: reduced viable sperm production soft tissue abnormalities[1 out of 39]
411-150-5	29617-66-1	(S)-2-chloropropionic acid	Acute Tox. 4, Skin Corr. 1A	Skin Corr. 1A H314 [intermediate (active)] STOT Rep. Exp. 2 H373 [intermediate (active)] Acute Tox. 4 H312 [intermediate (active)] Acute Tox. 4 H302 [intermediate (active)]	STOT Rep. Exp. 2 H373, affected organs: Damage to Organs[1 out of 6] Acute Tox. 4 H332[1 out of 6]
205-400-0	140-18-1	phenylmethyl chloroacetate		Eye Irrit. 2 H319 [intermediate (active)] Skin Irrit. 2 H315 [intermediate (active)] STOT Single Exp. 3 H335, affected organs: respiratory tract [intermediate (active)]	Acute Tox. 4 H302[1 out of 3] STOT Single Exp. 3 H335, affected organs: Respiratory tract[1 out of 3] Eye Damage 1 H318[1 out of 3] STOT Single Exp. 3 H335[1 out of 3]
204-146-8	116-54-1	methyl dichloroacetate		STOT Single Exp. 3 H335, affected organs: Respiratory system [intermediate (active)] Skin Irrit. 2 H315 [intermediate (active)] Acute Tox. 4 H332 [intermediate (active)] Eye Irrit. 2 H320 [intermediate (active)]	Eye Irrit. 2A H319[1 out of 8] STOT Single Exp. 3 H335[1 out of 8] Flam. Liquid 4 H227[1 out of 8] Acute Tox. 3 H311[2 out of 8] Eye Irrit. 2 H319[6 out of 8] STOT Single Exp. 3 H335, affected organs: Respiratory tract[1 out of 8] Acute Tox. 3 H331[2 out of 8] Muta. 2 H341[1 out of 8] Acute Tox. 3 H301[2 out of 8] STOT Single Exp. 3 H335, affected organs: respiratory

EC / List No	CAS No	Substance name	Harmonised classification	Classification in registrations	Classification in C&L notifications (*)
					system[2 out of 8] Flam. Liquid 3 H226[2 out of 8]
930-964-6	-	Reaction mass of chloroacetic acid and methyl chloroacetate		Acute Tox. 2 H330 [intermediate (inactive)] Acute Tox. 2 H310 [intermediate (inactive)] Skin Sens. 1 H317 [intermediate (inactive)] Skin Corr. 1B H314 [intermediate (inactive)] STOT Single Exp. 3 H335, affected organs: Respiratory tract [intermediate (inactive)] Flam. Liquid 3 H226 [intermediate (inactive)] Aquatic Acute 1 H400 [intermediate (inactive)] Acute Tox. 3 H301 [intermediate (inactive)]	-
219-732-9	2514-53-6	ethylene bis(trichloroacetate)	Skin Irrit. 2	-	Skin Irrit. 2 H315[1 out of 1]
280-349-5	83261-15-8	isobutyl (S)-2-chloropropionate		Acute Tox. 4 H302 [intermediate (active)] Skin Sens. 1B H317 [intermediate (active)]	Skin Irrit. 2 H315[1 out of 2] Eye Irrit. 2 H319[1 out of 2] STOT Single Exp. 3 H335[1 out of 2]
211-479-2	650-51-1	TCA	STOT SE 3, Aquatic Acute 1, Aquatic Chronic 1	Eye Irrit. 2 H319 [Article 10 (inactive)] Aquatic Chronic 1 H410 [Article 10 (inactive)] STOT Single Exp. 3 H335, affected organs: respiratory system [Article 10 (inactive)]	STOT Single Exp. 3 H335, affected organs: Respiratory system[1 out of 8] STOT Single Exp. 3 H335, affected organs: organs[1 out of 8] Aquatic Acute 1 H400[8 out of 8] STOT Single Exp. 3 H335[6 out of 8]
241-624-5	17639-93-9	methyl 2-chloropropionate		STOT Rep. Exp. 2 H373, affected organs: Substance is thought to be neurotoxic in repeat doses. [intermediate (active)] Flam. Liquid 3 H226 [intermediate (active)] Eye Irrit. 2 H319 [intermediate (active)]	Acute Tox. 4 H302[1 out of 10] STOT Single Exp. 3 H335, affected organs: Respiratory system[1 out of 10] STOT Single Exp. 3 H335, affected organs: Respiratory tract[1 out of 10] STOT Single Exp. 3 H335, affected organs: Respiratory system [1 out of 10] STOT Single Exp. 3 H335[2 out of 10]

EC / List No	CAS No	Substance name	Harmonised classification	Classification in registrations	Classification in C&L notifications (*)
					Skin Irrit. 2 H315[6 out of 10] Eye Irrit. 2A H319[1 out of 10]
223-498-3	3926-62-3	sodium chloroacetate	Acute Tox. 3, Skin Irrit. 2, Aquatic Acute 1	Acute Tox. 3 H301 Skin Irrit. 2 H315 Eye Irrit. 2 H319 Aquatic Acute 1 H400, M-factor: 10.00 Aquatic Acute 1 H400 Aquatic Chronic 1 H410	STOT Rep. Exp. 2 H373, affected organs: Kidney, Liver[2 out of 42]
201-171-6	79-04-9	chloroacetyl chloride	Acute Tox. 3, STOT RE 1, Skin Corr. 1A, Aquatic Acute 1	Aquatic Acute 1 H400 [intermediate (active)] Acute Tox. 3 H331 [intermediate (active)] STOT Rep. Exp. 1 H372 [intermediate (active)] Aquatic Chronic 1 H410, M-factor: 10.00 [intermediate (active)] Eye Damage 1 H318 [intermediate (active)] Skin Corr. 1A H314 [intermediate (active)] Acute Tox. 3 H311 [intermediate (active)] Acute Tox. 3 H301 [intermediate (active)]	Met. Corr. 1 H290[2 out of 40] STOT Rep. Exp. 2 H372[1 out of 40] Skin Corr. 1B H314[1 out of 40] Aquatic Chronic 1 H410[1 out of 40] Acute Tox. 2 H310[1 out of 40]
204-828-5	127-20-8	sodium 2,2-dichloropropionate		-	Eye Damage 1 H318[1 out of 2] Eye Irrit. 2 H319[1 out of 2] Skin Corr. 1C H314[1 out of 2] STOT Single Exp. 3 H335[1 out of 2] Skin Irrit. 2 H315[1 out of 2]
201-178-4	79-11-8	chloroacetic acid	Acute Tox. 3, Skin Corr. 1B, Aquatic Acute 1	Met. Corr. 1 H290 Acute Tox. 3 H301 Acute Tox. 3 H311 Acute Tox. 3 H331 Skin Corr. 1B H314 Eye Damage 1 H318 STOT Single Exp. 3 H335, affected organs: respiratory tract, specific concentration: >=5 Aquatic Acute 1 H400, M-factor: 10.00 Aquatic Acute 1 H400 Aquatic Chronic 1 H410 STOT Single Exp. 3 H335, affected organs: Respiration tract, specific concentration: >=5 [intermediate (active)] Aquatic Chronic 2 H411 [intermediate (active)]	STOT Single Exp. 3 H335, specific concentration: >=5[1 out of 85] Acute Tox. 1 H330[1 out of 85] STOT Single Exp. 3 H335[1 out of 85] STOT Single Exp. 3 H335, affected organs: Respiratory tract irritation, specific concentration: >=5[1 out of 85] Acute Tox. 2 H310[2 out of 85] STOT Single Exp. 3 H335, affected organs: respiratory trackt, specific concentration: >=5[1 out of 85] STOT Single Exp. 3 H335, affected organs: Respiratory Tract, specific concentration: >=5[1 out of 85] STOT Single Exp. 3 H336, affected organs: respiratory trackt, specific concentration: >=5[1 out of 85] STOT Single Exp. 3 H336,

EC / List No	CAS No	Substance name	Harmonised classification	Classification in registrations	Classification in C&L notifications (*)
					specific concentration: >=5[1 out of 85] Acute Tox. 2 H330[5 out of 85]
209-960-7	598-99-2	methyl trichloroacetate		Eye Irrit. 2 H319 [intermediate (inactive)] Acute Tox. 3 H301 [intermediate (inactive)] STOT Single Exp. 3 H335, affected organs: respiratory system [intermediate (inactive)] Skin Irrit. 2 H315 [intermediate (inactive)]	STOT Single Exp. 3 H335[1 out of 8] Acute Tox. 3 H331[1 out of 8] STOT Single Exp. 3 H335, affected organs: Respiratory tract[2 out of 8] Acute Tox. 3 H311[1 out of 8]
209-952-3	598-78-7	2-chloropropionic acid	Acute Tox. 4, Skin Corr. 1A	Skin Corr. 1A H314 [intermediate (active)] STOT Rep. Exp. 2 H373, affected organs: Neurotoxicity [intermediate (active)] Acute Tox. 4 H302 [intermediate (active)]	-
203-294-0	105-39-5	ethyl chloroacetate	Acute Tox., Aquatic Acute 1	Flam. Liquid 3 H226 Acute Tox. 3 H301 Acute Tox. 2 H310 Acute Tox. 3 H331 Skin Irrit. 2 H315 Eye Damage 1 H318 Skin Sens. 1 H317 Aquatic Acute 1 H400	Skin Corr. 1 H314[1 out of 23] Aquatic Chronic 1 H410[1 out of 23] Acute Tox. 3 H311[19 out of 23] Eye Irrit. 2 H318[1 out of 23]
219-834-3	2549-51-1	vinyl chloroacetate		Carc. 2 H351 Muta. 2 H341 Flam. Liquid 3 H226 Acute Tox. 4 H302 Skin Irrit. 2 H315 Eye Damage 1 H318 Skin Sens. 1B H317 Aquatic Acute 1 H400, M-factor: 10.00 STOT Single Exp. 3 H335, affected organs: respiratory tract Aquatic Chronic 1 H410	Skin Corr. 1 H314[1 out of 5] Acute Tox. 2 H330[1 out of 5] Acute Tox. 1 H300[1 out of 5] Skin Corr. 1B H314[3 out of 5] Aquatic Acute 1 H400[1 out of 5] Acute Tox. 2 H310[1 out of 5] Acute Tox. 2 H300[1 out of 5]
412-470-8	-	(S)-methyl-2-chloropropionate	Flam. Liq. 3, STOT RE 2, Eye Irrit. 2	Flam. Liquid 3 H226 [intermediate (active)] STOT Rep. Exp. 2 H373, affected organs: Central nervous system [intermediate (active)] Eye Irrit. 2 H319 [intermediate (active)]	-
625-379-5	73246-45-4	625-379-5	Flam. Liq. 3, STOT RE	-	STOT Rep. Exp. 2 H373, affected organs: Kidney, liver, nervous central system[1 out

EC / List No	CAS No	Substance name	Harmonised classification	Classification in registrations	Classification in C&L notifications (*)
			2, Eye Irrit. 2		of 4] Flam. Liquid 3 H226[3 out of 4] STOT Rep. Exp. 2 H373[2 out of 4] Eye Irrit. 2 H319[3 out of 4]
231-540-7	7623-09-8	2-chloropropionyl chloride		Skin Corr. 1A H314 [intermediate (active)] Flam. Liquid 3 H226 [intermediate (active)] Acute Tox. 4 H302 [intermediate (active)]	Skin Corr. 1B H314[5 out of 9] STOT Single Exp. 3 H335, affected organs: Respiratory tract[1 out of 9] STOT Single Exp. 3 H335, affected organs: lungs, respiratory system[1 out of 9] Eye Damage 1 H318[4 out of 9]

(*) 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 28/01/2022.

Main types of applications structured by product or article types EC number	PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents (count)	PC 12: Fertilisers (count)	PC 27: Plant protection products (count)	PC 35: Washing and cleaning products (count)	PC 8: Biocidal products (e.g. disinfectants, pest control) (count)	PC 39: Cosmetics, personal care products (count)	PC 29: Pharmaceuticals (count)	PC 15: Non-metal-surface treatment products (count)	PC 32: Polymer preparations and compounds (count)	PC 1: Adhesives, sealants (count)	PC 9b: Fillers, putties, plasters, modelling clay (count)	PC 9a: Coatings and paints, thinners, paint removes (count)	PC 26: Paper and board treatment products (count)	PC 34: Textile dyes, and impregnating products (count)	PC 14: Metal surface treatment products (count)	PC 21: Laboratory chemicals (count)	PC 19: Intermediate (count)
200-926-7																	F, I,
200-927-2	I, **P**,			F,		I, **P**,	F, I, **P**,	F, I,			F,	F,			I,	F, I, **P**,	F, I,
201-171-6							I,									I,	I,

Main types of applications structured by product or article types EC number	PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents (count)	PC 12: Fertilisers (count)	PC 27: Plant protection products (count)	PC 35: Washing and cleaning products (count)	PC 8: Biocidal products (e.g. disinfectants, pest control) (count)	PC 39: Cosmetics, personal care products (count)	PC 29: Pharmaceuticals (count)	PC 15: Non-metal-surface treatment products (count)	PC 32: Polymer preparations and compounds (count)	PC 1: Adhesives, sealants (count)	PC 9b: Fillers, putties, plasters, modelling clay (count)	PC 9a: Coatings and paints, thinners, paint removes (count)	PC 26: Paper and board treatment products (count)	PC 34: Textile dyes, and impregnating products (count)	PC 14: Metal surface treatment products (count)	PC 21: Laboratory chemicals (count)	PC 19: Intermediate (count)
201-178-4		F, I,	F, I, **P**,		F, I,	F, I, **P**, **C**,	F, I, **P**,		F, I, **P**,	F, **P**,			F, I, **P**,			I, **P**,	F, I, **P**,
201-199-9																	I,
201-207-0	I, **P**,						I,		I,							I, **P**,	
202-501-1							I,									I,	I,
203-294-0																I,	I,

Main types of applications structured by product or article types EC number	PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents (count)	PC 12: Fertilisers (count)	PC 27: Plant protection products (count)	PC 35: Washing and cleaning products (count)	PC 8: Biocidal products (e.g. disinfectants, pest control) (count)	PC 39: Cosmetics, personal care products (count)	PC 29: Pharmaceuticals (count)	PC 15: Non-metal-surface treatment products (count)	PC 32: Polymer preparations and compounds (count)	PC 1: Adhesives, sealants (count)	PC 9b: Fillers, putties, plasters, modelling clay (count)	PC 9a: Coatings and paints, thinners, paint removes (count)	PC 26: Paper and board treatment products (count)	PC 34: Textile dyes, and impregnating products (count)	PC 14: Metal surface treatment products (count)	PC 21: Laboratory chemicals (count)	PC 19: Intermediate (count)
203-506-1							I,									I,	I,
204-146-8																	
205-400-0																	I,
208-212-7																	I,
208-610-0																	I,
208-794-2																	I,
209-952-3																	I,

Main types of applications structured by product or article types EC number	PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents (count)	PC 12: Fertilisers (count)	PC 27: Plant protection products (count)	PC 35: Washing and cleaning products (count)	PC 8: Biocidal products (e.g. disinfectants, pest control) (count)	PC 39: Cosmetics, personal care products (count)	PC 29: Pharmaceuticals (count)	PC 15: Non-metal-surface treatment products (count)	PC 32: Polymer preparations and compounds (count)	PC 1: Adhesives, sealants (count)	PC 9b: Fillers, putties, plasters, modelling clay (count)	PC 9a: Coatings and paints, thinners, paint removes (count)	PC 26: Paper and board treatment products (count)	PC 34: Textile dyes, and impregnating products (count)	PC 14: Metal surface treatment products (count)	PC 21: Laboratory chemicals (count)	PC 19: Intermediate (count)
209-960-7							I,										I,
211-479-2																	I,
219-834-3									**P**,								**P**,
222-940-2																	I,
223-498-3	F,	I,	I,						F,					F,			I,
231-540-7																	I,
237-913-0																	I,

Main types of applications structured by product or article types EC number	PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents (count)	PC 12: Fertilisers (count)	PC 27: Plant protection products (count)	PC 35: Washing and cleaning products (count)	PC 8: Biocidal products (e.g. disinfectants, pest control) (count)	PC 39: Cosmetics, personal care products (count)	PC 29: Pharmaceuticals (count)	PC 15: Non-metal-surface treatment products (count)	PC 32: Polymer preparations and compounds (count)	PC 1: Adhesives, sealants (count)	PC 9b: Fillers, putties, plasters, modelling clay (count)	PC 9a: Coatings and paints, thinners, paint removes (count)	PC 26: Paper and board treatment products (count)	PC 34: Textile dyes, and impregnating products (count)	PC 14: Metal surface treatment products (count)	PC 21: Laboratory chemicals (count)	PC 19: Intermediate (count)
241-624-5																	I,
280-349-5																	I,
411-150-5																	I,
412-470-8																	I,
608-818-5														I,			
613-168-0																	
619-642-3									F,								F,
687-783-8																	I,
691-865-9																	I,

Main types of applications structured by product or article types EC number	PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents (count)	PC 12: Fertilisers (count)	PC 27: Plant protection products (count)	PC 35: Washing and cleaning products (count)	PC 8: Biocidal products (e.g. disinfectants, pest control) (count)	PC 39: Cosmetics, personal care products (count)	PC 29: Pharmaceuticals (count)	PC 15: Non-metal-surface treatment products (count)	PC 32: Polymer preparations and compounds (count)	PC 1: Adhesives, sealants (count)	PC 9b: Fillers, putties, plasters, modelling clay (count)	PC 9a: Coatings and paints, thinners, paint removes (count)	PC 26: Paper and board treatment products (count)	PC 34: Textile dyes, and impregnating products (count)	PC 14: Metal surface treatment products (count)	PC 21: Laboratory chemicals (count)	PC 19: Intermediate (count)
700-306-0																	I,
930-964-6																	I,

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 13/01/2022.

EC / List number	RMOA	Authorisation		Restriction*	CLH	Actions not under REACH / CLP**
		Candidate list	Annex XIV	Annex XVII	Annex VI (CLP)	
201-171-6					YES	National OELs in at least 8 EU countries
201-178-4					YES	National OELs in at least 10 EU countries
202-501-1					YES	National OELs in at least 5 EU countries
203-294-0					YES	National OELs in at least 2 EU countries
203-301-7					YES	
223-498-3					YES	National OEL in at least 1 EU country
201-199-9					YES	National OEL in at least 1 EU country
201-207-0					YES	National OELs in at least 4 EU countries
200-927-2					YES	National OELs in at least 9 EU countries
211-479-2					YES	National OEL in at least 1 EU country
219-732-9					YES	
209-952-3					YES	National OELs in at least 7 EU countries
411-150-5					YES	NONS
412-470-8					YES	NONS
625-379-5					YES	
415-140-1						NONs
200-926-7						National OEL in at least 1 EU country

*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).

**The table does not necessarily show all substances that have IOELs/BOELs/national OELs

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