ECHA
EUROPEAN CHEMICALS AGENCY

Helsinki, 11 December 2019

Addressee: [redacted]

Decision number: CCH-D-2114493178-37-01/F
Substance name: Alcohols, C12-15, ethoxylated
EC number: 500-195-7
CAS number: 68131-39-5
Registration number: [redacted]
Submission number: [redacted]
Submission date: 20/07/2018
Registered tonnage band: Over 1000

DECISION ON A COMPLIANCE CHECK

Based on Article 41 of Regulation (EC) No 1907/2006 (the REACH Regulation), ECHA requests you to submit information on:

1. **Name or other identifier of the substance (Annex VI, Section 2.1.);**
   - **EC and/or CAS entry**
2. **Composition of the substance (Annex VI, Section 2.3.);**
3. **Sub-chronic toxicity study (90-day), oral route (Annex IX, Section 8.6.2.; test method: OECD TG 408) in rats with the registered substance;**
4. **Pre-natal developmental toxicity study (Annex IX, Section 8.7.2.; test method: OECD TG 414) in a first species (rat or rabbit), oral route with the registered substance;**
5. **Pre-natal developmental toxicity study (Annex X, Section 8.7.2.; test method: OECD TG 414) in a second species (rat or rabbit), oral route with the registered substance;**
6. **Growth inhibition study aquatic plants (Annex VII, Section 9.1.2.; test method: Alga, growth inhibition test, EU C.3./OECD TG 201) with the registered substance;**
7. **Long-term toxicity testing on aquatic invertebrates (Annex IX, Section 9.1.5.; test method: Daphnia magna reproduction test, EU C.20./OECD TG 211) with the registered substance;**
8. **Long-term toxicity testing on fish (Annex IX, Section 9.1.6.1.; test method: Fish, early-life stage (FELS) toxicity test, OECD TG 210) with the registered substance;**

You are required to submit the requested information in an updated registration dossier by ***20 June 2022*** except for the information requested under point *3* for a Sub-chronic toxicity study (90-day) which shall be submitted in an updated registration dossier by ***18 June 2021***. You shall also update the chemical safety report, where relevant. The timeline has been set to allow for sequential testing.

The reasons of this decision are set out in Appendix 1. The procedural history is described in Appendix 2 and advice and further observations are provided in Appendix 3.

This decision does not address the information requirement of the Extended one-generation reproductive toxicity study according to Annex X, Section 8.7.3. of the REACH Regulation.

Appeal

This decision can be appealed to the Board of Appeal of ECHA within three months of its notification. An appeal, together with the grounds thereof, has to be submitted to ECHA in writing. An appeal has suspensive effect and is subject to a fee. Further details are described under: http://echa.europa.eu/regulations/appeals.

Authorised[1] by Wim De Coen, Head of Unit, Hazard Assessment

[1] As this is an electronic document, it is not physically signed. This communication has been approved according to ECHA's internal decision-approval process.

Appendix 1: Reasons

I. IDENTIFICATION OF THE SUBSTANCE

In accordance with Article 10(a)(ii) of the REACH Regulation, the technical dossier must contain information on the identity of the substance as specified in Annex VI, Section 2 to the REACH Regulation. In accordance with Annex VI, Section 2 the information provided has to be sufficient to enable the identification of the registered substance.

1. Name or other identifier of the substance (Annex VI, Section 2.1.)

Annex VI, section 2.1 of the REACH Regulation requires that the registration contains the name or other identifier of the registered substance, including the appropriate European Community name and number if available.

You have identified your substance with EC number 500-195-7 and the coresponding EC name "Alcohols, C12-15, ethoxylated". However, the analytical information which you have attached in IUCLID section 1.4 [redacted] and [redacted] indicates the presence of siginificant amounts of branched alcohol ethoxylates in your substance.

The identified EC number/name refers to alcohol ethoxylated with low or no amounts of branched alcohol ethoxylates. This EC number/name, however, does not correspond to the analytical information provided since the presence of such high concentration of branched alcohol ethoxylates would require that the branching is reflected in the substance name. For a substance which contains high amounts of branched alcohol ethoxylates the EC number 500-294-5 with the corresponding EC name "Alcohols, C12-15, branched and linear, ethoxylated" could be considered as appropriate.

The current identifiers are thus not appropriate to describe the registered substance and should be revised. With regard to the CAS number, you are requested to remove the current CAS entry from the "CAS information" header of the reference substance in IUCLID section 1.1. However, you can include the current CAS number in the "Related CAS information" field in section 1.1. Any available CAS entry for the registered substance should be reported under the "CAS information" header of the reference substance in IUCLID section 1.1

With regard to the EC entry, in the updated dossier, for technical reason you will not be able to remove or modify the current EC entry, as this EC entry is linked to your registration in REACH-IT. Therefore, to ensure unambiguous identification of the registered substance, you should indicate, in the "Remarks" field of the reference substance in IUCLID section 1.1, the following: "The EC number 500-195-7 currently assigned does not specifically correspond to the registered substance. This identifier cannot be modified or deleted at this stage in the present registration update for technical reasons". You should also specify, in the same "Remarks" field, any available and appropriate EC number for the substance. As mentioned above, EC number 500-294-5 with the corresponding EC name "Alcohols, C12-15, branched and linear, ethoxylated" could be considered as appropriate if your substance contains high amounts of branched alcohol ethoxylates.

You should note that ECHA has established a process, subject to certain conditions, enabling registrants to adapt the EC identifier of an existing registration, while maintaining the regulatory rights already conferred to the substance concerned.

Pending the resolution of the non-compliances addressed in the present decision, any possible adaptation of the identifier can only become effective once ECHA is in a position to establish

unambiguously the identity of the substance intended to be covered by you with this registration. Should the information submitted by you as a result of the present decision enable ECHA to identify the substance unambiguously and result in a need to modify the identifier of the substance, the process of adapting the identifier will be considered relevant. In that case, ECHA will inform you in due time as to when and how the identifier adaptation process shall be initiated.

In any case, you should note that the application of the process of adapting the identifier does not affect your obligation to fulfil the requirements specified in this decision.

Note for consideration

In case your registration actually refers to "Alcohols, C12-15, ethoxylated", a substance with low or no amounts of branched alcohol ethoxylates, and the wrong analytical information was provided, then please attach in IUCLID section 1.4 the analytical information resulting from this substance.

In your comments to the draft decision you consider it appropriate to rename the substance and indicate to wait for ECHA to inform you about the identifier adaptation.

ECHA acknowledges your intention to change the chemical identifier. ECHA can start the change of identifier service only after receiving your dossier update with sufficient information on substance identity as described above.

2. Composition of the substance (Annex VI, Section 2.3.)

In accordance with Article 10(a)(ii) of the REACH Regulation, the technical dossier must contain information on the identity of the substance as specified in Annex VI, Section 2 to the REACH Regulation. In accordance with Annex VI, Section 2 the information provided has to be sufficient to enable the identification of the registered substance.

Annex VI, section 2.3. of the REACH Regulation requires that each registration dossier contains sufficient information for establishing the composition of the registered substance and therefore its identity.

You have identified your substance as a UVCB substance. UVCB substances either cannot be uniquely specified with the IUPAC name of the constituents, as not all the constituents can be identified; or they may be generically specified but with a lack of specificity due to variability of the exact composition. In that respect, according to chapter 4.3 of the Guidance for identification and naming of substances under REACH and CLP (May 2017 version 2.1), you should note that for UVCB substances presenting a large number of constituents, such as the registered substance, the following applies:

- All constituents present in the substance with a concentration of ≥ 10 % shall be identified and reported individually;
- All known constituents and constituents relevant for the classification and/or PBT assessment of the registered substance shall be identified and reported individually; and
- Unknown constituents shall be identified as far as possible by a generic description of their chemical nature; and
- For each constituent and group of constituents, the typical, minimum and maximum concentration levels shall be specified.

You have grouped in IUCLID section 1.2 the constituents as follows:

- [redacted]alcohols, c12-15, branched and linear, ethoxylated, [redacted]
- c13 alcohol ethoxylate - uvcb, [redacted]
- alcohols, c12-15, ethoxylated, [redacted]
- c14 alcohol ethoxylate - uvcb, [redacted]
- c15 alcohol ethoxylate - uvcb, [redacted]
- c12 alcohol ethoxylate - uvcb, [redacted]
- alcohols, c12-15-branched and linear, [redacted]

The reported composition is not detailed enough and each EO degree should be separately reported for each listed linear and branched alcohol(s).

Furthermore, the sum of the typical concetration totals [redacted] which is significantly higher than the expected 100 % (w/w).

For these reasons, it is not possible to verify unambigously the composition of the registered substance.

Therefore, you are requested to further subdivide the group of constituents and to provide one composition record for each unreacted alcohol, and to the extent possible report the ethoxylated constituents present in the substance according to the alcohol starting material and EO degrees. As an example: mono ethoxylated tetradecanol ("2-(tetradecyloxy)ethanol") should be listed as a separate constituent record in IUCLID section 1.2. The branched alcohol ethoxylates present in your substance needs to be reported in IUCLID section 1.2 as well.
For each constituent the minimum and maximum concentration values should be specified. If a grouping based on ethoxylation degrees is needed (for example EO of 0, 1-2, 3 and higher), a justification should be provided as to why grouping does not interfere with the hazard assessment.

Note for consideration

It is necessary to provide compositional details and information requirements in the form of (eco)toxicological studies on every single constituent (carbon-chain length and ethoxylation degree), unless grouping and read-across was applied. For read-across to be successful, a valid justification in the form of a hypothesis *and* supporting (experimental) proof are necessary. Further information on how ECHA assesses read-across can be found in the "Read-Across Assessment Framework (RAAF, ECHA 2017)", as well as "RAAF considerations on multi-constituent substances (UVCB-RAAF, ECHA 2017)."

You should therefore consider how the information requested here may be relevant for your read-across approach.

Regarding how to report the composition in IUCLID, the following applies: you shall indicate the composition of the registered substance in IUCLID section 1.2 by creating for each constituent a separate constituent record. For each constituent required to be reported individually, the IUPAC name, CAS name and CAS number (if available), molecular and structural formula, as well as the minimum, maximum and typical concentration, shall be reported in the appropriate fields in IUCLID. For the other constituents to be reported under a generic description, a generic chemical name describing the group of constituents, generic molecular and structural information (if applicable), as well as the minimum, maximum and typical concentration, shall be reported in the appropriate fields in IUCLID.

In your comments to the draft decision you outline how you intend to update the composition information of the Substance. Referrering to two constituents: *alcohols, c12-15, branched and linear, ethoxylated* and *alcohols, c12-15-branched and linear*, you state that "only the percentages of these C12-15 should be added up with using both maxima [redacted] equal [redacted] The remaining constituent would be the Alcohols with 3 moles EO and more."
It is not clear how you intend to update the composition of your substance. Furthermore, it is not clear why you have considered that only the maxima, and not typical concentrations of these two specific constituents, should be considered to be added up when considering the substance mass balance. However, as stated above, the request in the draft decision remains.

II. TOXICOLOGICAL AND ECOTOXICOLOGICAL INFORMATION

In accordance with Articles 10(a) and 12(1) of the REACH Regulation, a technical dossier registered at more than 1000 tonnes per year must contain, as a minimum, the information specified in Annexes VII to X to the REACH Regulation. The information to be generated for the dossier must fulfil the criteria in Article 13(4) of the same regulation.

Your registration dossier contains for multiple endpoints adaptation arguments. ECHA has assessed first the scientific and regulatory validity of your adaptation approach in general, before assessing the individual properties in individual endpoints (sections 3-8).

0. Grouping of substances and read-across approach

Your registration dossiers contain adaptation arguments which are based on a grouping and read-across approach in accordance with Annex XI, Section 1.5. of the REACH Regulation. You have grouped registered substances and formed a category of 'alcohols, ethoxylated, C6-20' to predict missing (eco)toxicological properties within this group. You consider to achieve compliance with the REACH information requirements for the registered substance alcohols, c12-15, ethoxylated (<2.5 eo) using data of these structurally similar substances.

You thus seek to adapt information requirements for the endpoints:

- Screening for reproductive/developmental toxicity (Annex VIII, Section 8.7.1.);
- Sub-chronic toxicity study (90-day) (Annex IX, Section 8.6.2.);
- Pre-natal developmental toxicity study (Annex IX, Section 8.7.2);
- Pre-natal developmental toxicity study (Annex X, Section 8.7.2);
- Growth inhibition study aquatic plants (Annex VII, Section 9.1.2);
- Short-term toxicity testing on invertebrates (Annex VII, Section 9.1.1);
- Short-term toxicity testing on fish (Annex VIII, Section 9.1.3);
- Long-term toxicity testing on invertebrates (Annex IX, Section 9.1.5);
- Long-term toxicity testing on fish (Annex IX, Section 9.1.6).

ECHA notes that according to Annex XI, Section 1.5., two conditions shall be necessarily fulfilled. Firstly, there needs to be structural similarity between substances which results in a likelihood that the substances have similar physicochemical, toxicological and ecotoxicological properties so that the substances may be considered as a group or category. Secondly, it is required that the relevant properties of a substance within the group may be predicted from data for reference substance(s) within the group (read-across approach). ECHA considers that the generation of information by such alternative means should offer equivalence to prescribed tests or test methods.

Based on the above, a read-across hypothesis needs to be provided. This hypothesis establishes why a prediction for a toxicological or ecotoxicological property is reliable and

should be based on recognition of the structural similarities and differences between the source and registered substances[2]. This hypothesis explains why the differences in the chemical structures should not influence the toxicological/ ecotoxicological properties or should do so in a regular pattern. The read-across approach must be justified scientifically and documented thoroughly, also taking into account the differences in the chemical structures. There may be several lines of supporting evidence used to justify the read-across hypothesis, with the aim of strengthening the case.

Due to the different nature of each endpoint and consequent difference in scientific considerations (e.g. key parameters, biological targets), a read-across must be specific to the endpoint or property under consideration. Key physicochemical properties may determine the fate of a compound, its partitioning into a specific phase or compartment and largely influence the availability of compounds to organisms, e.g. in bioaccumulation and toxicity tests. Similarly, biotic and abiotic degradation may alter the fate and bioavailability of compounds as well as be themselves hazardous, bioaccumulative and/or persistent. Thus, physicochemical and degradation properties influence the human health and environmental properties of a substance and should be considered in read-across assessments. However, the information on physicochemical and degradation properties is only a part of the read-across hypothesis, and it is necessary to provide additional justification which is specific to the endpoint or property under consideration.

The ECHA Read-across assessment framework[3,4] foresees that there are two options which may form the basis of the read-across hypothesis- (1) (Bio)transformation to common compound(s)- the read-across hypothesis is that different substances give rise to (the same) common compounds to which the organism is exposed and (2) Different compounds have the same type of effect(s)- the read-across hypothesis is that the organism is exposed to different compounds which have similar (eco)toxicological and fate properties as a result of structural similarity (and not as a result of exposure to common compounds).

Finally, Annex XI, Section 1.5. lists several additional requirements, which deal with the quality of the studies which are to be read-across.

0.1. Description of the grouping and category approach

You have provided a read-across documentation as a separate attachment in Section 13 of the technical dossier, [redacted] You define the applicability domain of the category as:

- Alcohol ethoxylates of fatty alcohols
- Carbon chain length C6 to C20
- Linear and branched alcohols, mostly 2-methyl branching
- Mainly saturated carbon chains, with two unsaturated members (C18)
- Average ethoxylation degree (EO) of 0 to 2.5 (for REACH purposes) for more than 50,0% of constituents (w/w).

You have identified the following substances as category members:

[2] Please see for further information ECHA *Guidance on information requirements and chemical safety assessment* (version 1, May 2008), Chapter R.6: QSARs and grouping of chemicals.
[3] Read-Across Assessment Framework (RAAF). 2017 (March) ECHA, Helsinki. 60 pp. Available online: https://echa.europa.eu/support/registration/how-to-avoid-unnecessary-testing-on-animals/grouping-of-substances-and-read-across

[4] Read-across assessment framework (RAAF) - considerations on multi-constituent substances and UVCBs. 2017 (March) ECHA, Helsinki. 40 pp. Available online: https://echa.europa.eu/publications/technical-scientific-reports

	Name	CAS number
# 1	Alcohols, C12-14 (even numbered), ethoxylated, < 2.5 EO	68439-50-9
# 2	Alcohols, C12-13, ethoxylated, < 2.5 EO	66455-14-9
# 3	Alcohols, C12-15, ethoxylated, < 2.5 EO	68131-39-5
# 4	Alcohols, C16-18 (even numbered)& C18 unsaturated, ethoxyl., <2.5 EO	68920-66-1
# 5	Alcohols, C12-13 linear and branched, ethoxylated, <2.5 EO	160901-19-9
# 6	Alcohols, C12-18 (even numbered), ethoxylated, <2.5 EO	68213-23-0
# 7	Alcohols, C9-11, ethoxylated, < 2.5 EO	68439-46-3, 160901-09-7
# 8	Alcohols, C10-12 (even numbered), ethoxylated, < 2.5 EO	67254-71-1
# 9	Alcohols, C16-18 (even numbered), ethoxylated, <2.5 EO	68439-49-6
# 10	Octadecan-1-ol, ethoxylated, <2.5 EO	9005-00-9
# 11	2-hexyldecan-1-ol, ethoxylated, <2.5 EO	52609-19-5
# 12	Z)-9-Octadecen-1-ol, ethoxylated, <2.5 EO	9004-98-2
# 13	Hexadecan-1-ol, ethoxylated, < 2.5 EO	9004-95-9
# 14	Alcohols, C16-20, ethoxylated, < 2.5 EO	106232-82-0
# 15	Dodecan-1-ol, ethoxylated, < 2.5 EO	9002-92-0, 3055-93-4
# 16	Alcohols, C6-10, ethoxylated (2-(2-hexyloxyethoxy)ethanol)	112-59-4
# 17	Alcohols, C6-12, ethoxylated, <2.5 EO	68439-45-2
# 18	Alcohols, C11-15, ethoxylated, <2.5 EO	68002-97-1
# 19	Alcohols, C10, ethoxylated, <2.5 EO	26183-52-8
# 20	Alcohols, C18, ethoxylated, branched, <2,5 EO	52292-17-8

ECHA indicates these substances hereafter as substance #1 to #20. The justification document also lists supporting substances which do not belong to the category due to ethoxylation degrees higher than 2,5:

# 21	Polyethylene glycol, ethoxylated, <2.5 EO	25322-68-3
# 22	Alcohols, C12	112-53-8
# 23	Hexadecan-1-ol	36653-82-4
# 24	Alcohols, C9-11, ethoxylated, 6 EO	68439-46-3
# 25	Alcohols, C14-15, ethoxylated, 7 EO	68951-67-7
# 26	Alcohols, C9-11, branched, ethoxylated	169107-21-5
# 27	Alcohols, C10-14, ethoxylated	66455-15-0
# 28	Alcohols, C12-13, ethoxylated, 6.5 EO	--
# 29	3,6,9,12-tetraoxatetracosan-1-ol	5274-68-0
# 30	Diethyleneglycol hexadecylether	5274-61-3
# 31	Alcohols, C16-18, ethoxylated, 10 EO	61791-28-4
# 32	Alcohols, C16-18 (even numbered) & C18 unsaturated, ethoxyl., 10 EO	68920-66-1

0.2. Assessment of the grouping and category approach

Annex XI, Section 1.5 of the REACH Regulation provides that *"substances whose physicochemical, toxicological and ecotoxicological properties are likely to be similar or follow a regular pattern as a result of chemical similarity may be considered as group."*

The characterisation of the substances identified as members of a category needs to be as detailed as possible in order to confirm category membership and to assess whether the attempted predictions are not compromised by the composition and/or impurities (Guidance R6).[5] The information provided on the substance characterisation of the category members must establish a clear picture of the chemical structures of their constituents to demonstrate

[5] Guidance on information requirements and chemical safety assessment (ECHA, May 2008), Chapter R.6: QSARs and grouping of chemicals, R.6.2.4.1 p.100. Available online: https://echa.europa.eu/documents/10162/13632/information_requirements_r6_en.pdf

the extent of qualitative and quantitative differences and similarities in the structure and in the composition of these substances. ECHA recommends to follow its *Guidance for identification and naming of substances under REACH and CLP* for all substances within the category.[6]

Furthermore, the provided information for categories consisting of UVCB (Unknown or Variable composition, Complex reaction products or of Biological materials) substances needs to include qualitative compositional information of the individual constituents of the category members; as well as quantitative characterisation in the form of information on the concentration of the individual constituents of these substances; to the extent that this is measurable (Guidance R6).[7]

Sections 1.1.4, 1.2, and 2.2 of your read-across justification document contain compositional information for the members of your category. You report concentration ranges for ethoxylated alcohols of various carbon chain length for each category member. An average number of ethylene oxide units (EO) is reported for each member of the category. For free alcohol (EO = 0) a single broad range of concentration (*"15-50%"*) is reported for each category member and no information on carbon chain length is reported.

In section 1.1.2 of your read-across justification document, the applicability domain of your category is defined as *"alcohol ethoxylates of linear and branched fatty alcohols (carbon chain range between C6 and C20) with an average number of ethylene oxide units of 0 (alcohol not ethoxylated) and 2.5".* Based on this information, ECHA understands that the carbon chain length and the ethoxylation degree of the constituents of the category members constitute the main structural elements varying among the members of the category.

0.2.1. Degree of ethoxylation

A range of average ethoxylation degree of 0-2.5 is reported for each member of the category in the category justification document. Whilst the information provided suggests that ethoxylated alcohols of varying chain lengths are included in the composition of the category members, no information on the ethoxylation degree of each of these constituents is provided in the category justification document. It also remains unclear whether all the ethoxylated alcohols of a defined carbon chain length have the same degree of ethoxylation. The highest boundary in the average of an ethoxylation degree of 2,5 suggests that some constituents of these substances have an ethoxylation degree of higher than two.

No further details are provided on how the average ethoxylation degree is determined for a substance. ECHA understands that the average ethoxylation degree for a substance is determined by the relative proportion of constituents of different ethoxylation degrees. In these circumstances, the potential variations in the carbon chain length of constituents bearing the same number of ethoxylate groups do not interfere with the determination of the ethoxylation degree of the substance. The average ethoxylation degree of the substance, and therefore its membership in this category, appears to be solely dependent on the average ethoxylation degree of its constituents. Since only the average ethoxylation degree is taken into account for category membership, without consideration of the distribution of the ethoxylation amongst constituents of different carbon chain length, a considerable compositional variability is possible within the applicability domain.

[6] Guidance for identification and naming of substances under REACH and CLP (version 2.1, May 2017). ECHA, Helsinki. 127 pp. Available online: https://echa.europa.eu/guidance-documents/guidance-on-reach

[7] Guidance on information requirements and chemical safety assessment (ECHA, May 2008), Chapter R.6: QSARs and grouping of chemicals, R.6.2.5.5 p.112. Weblink see Footnote 6, above.

As indicated above, ECHA points out that the absence of information on the degree of ethoxylation of each of the constituents prevents the confirmation of the category membership, i.e. that the substances are within the applicability domain of the category. Furthermore, quantitative information on the distribution of the constituents of various carbon chain length and ethoxylation degree is missing from your category justification document. Considering the above-mentioned limitations in the characterisation of the composition of the individual category members, no qualitative or quantitative comparative assessment of the compositions of the different category members across the category can be completed.

0.2.2. Distribution of carbon chain length of free alcohol

ECHA notes that in the justification document there is only a generic range of concentrations provided for all the free alcohols present as constituents in the composition of the category members. No information is provided on the individual concentration of free alcohols of different carbon chain lengths. The absence of this information prevents ECHA to conclude on the similarity in the composition of the different category members and thus whether predictions are not compromised by the composition and/or impurities.

0.2.3. Conclusion

Therefore, ECHA considers that the level of information provided on the composition of the different category members, and the justification for grouping of constituents provided in the read-across justification document, is not adequate to establish the extent of the similarity and of the differences in the structure and in the composition of these substances. Consequently the category membership cannot be confirmed. This deficiency also affects the possibility to predict properties within the category.

0.3. Assessment of predictions within the category

ECHA has evaluated your read-across hypothesis and considered whether the justification you have provided to support your hypothesis are relevant and adequate to allow prediction of toxicological and eco-toxicological properties. In this regard, based on the information provided in the read-across justification document and in the technical registration dossiers of the category members, ECHA identified a number of deficiencies in your approach which are described in sections 0.3.2-0.3.5, below.

0.3.1. Description of your predictions of toxicological and ecotoxicological properties

Your read-across justification document for the proposed "alcohol ethoxylates (C6-C20, EO <2,5)" category contains:

- high level compositional information;
- the reasoning for the grouping based on structural similarity;
- information to support the read-across approach based on physico-chemical properties;
- information to support the read-across approach based on similarity or regular pattern in lower-tier toxicological and ecotoxicological properties; and
- data matrices showing the available compositional, physico-chemical, environmental fate and (eco)toxicological data and how the data is to be read-across within the category.

You use the following arguments to support the prediction of properties within the category:

- At ethoxylation degree (EO) of 0, components are free fatty alcohols. Depending on

the desired ethoxylation degree, these can represent the main constituent of a substance. *"The AEs with an ethoxylation degree of 0-2.5 contain a considerable amount of the corresponding free alcohol and AE0 correspond to the free alcohols."*
- *"Alcohol ethoxylates are metabolised to either physiologically occurring metabolites (fatty acids)* [...] *or compounds of low toxicity."*
- There are similarities in the chemical production process, in the functional groups, and in the general composition.

You have provided the following hypothesis for predicting properties of higher tier endpoints such as repeated-dose toxicity, reproductive toxicity and pre-natal developmental toxicity for the members of the category: *"It is expected that the toxicity of AE increases with increasing grade of ethoxylation, while the alkyl chain length does not have a meaningful influence on toxicity."* ECHA understands that this constitutes the basis on which you intend to predict the properties under consideration for the category members from information obtained from the following source substances:

Repeated dose toxicity:

# 21	PEG 200 and PEG 400	(CAS 25322-68-3)
# 22	C12 EO 0	(CAS 112-53-8)
# 23	C16 EO 0	(CAS 36653-82-4)
# 24	C9-11 EO 6	(CAS 68439-46-3)
# 25	C14-15 EO 7	(CAS 68951-67-7)
# 32	C16-18 EO 10	(CAS 68920-66-1)

Pre-natal developmental toxicity and reproductive toxicity:

# 24	C9-11 AE 6	(CAS 68439-46-3)
# 25	C14-15 AE 7	(CAS 68951-67-7)

You use the following argument to support the prediction of ecotoxicological properties within the category: *"the toxicity of the substances increases with an increase in the length of the hydrocarbon chain"*. However you consider that the trend is limited by water solubility and thus the acute aquatic toxicity of low water soluble category members with a hydrocarbon chain length of above 15 is clearly reduced. ECHA understands that this constitutes the basis on which you intend to predict the properties under consideration for the category members from information obtained from the following source substances (as reported in the Table 4 Environmental Toxicity of your read-across justification document):

Algae growth inhibition:

# 1	Alcohols, C12-14 (even numbered), ethoxylated, < 2.5 EO	(CAS 68439-50-9)
# 3	Alcohols, C12-15, ethoxylated, < 2.5 EO	(CAS 68131-39-5)
# 4	Alcohols, C16-18 (even numbered) & C18 unsaturated, ethoxyl., <2.5 EO	(CAS 68920-66-1)
# 5	Alcohols, C12-13 linear and branched, ethoxylated, <2.5 EO	(CAS 160901-19-9)
# 7	Alcohols, C9-11, ethoxylated, < 2.5 EO	(CAS 68439-46-3)
# 9	Alcohols, C16-18 (even numbered), ethoxylated, < 2.5 EO	(CAS 68439-49-6)
# 15	Dodecan-1-ol, ethoxylated, < 2.5 EO	(CAS 9002-92-0; 3055-93-4)
# 28	3,6,9,12-tetraoxatetracosan-1-ol	(CAS 5274-68-0)
# 29	Diethyleneglycol hexadecylether	(CAS 5274-61-3)

Short-term toxicity testing on aquatic invertebrates:

# 1	Alcohols, C12-14 (even numbered), ethoxylated, < 2.5 EO	(CAS 68439-50-9)
# 2	Alcohols, C12-13, ethoxylated, < 2.5 EO	(CAS 66455-14-9)

3 Alcohols, C12-15, ethoxylated, < 2.5 EO (CAS 68131-39-5)
5 Alcohols, C12-13 linear and branched, ethoxylated, <2.5 EO (CAS 160901-19-9)
6 Alcohols, C12-18 (even numbered), ethoxylated, <2.5 EO (CAS 68213-23-0)
7 Alcohols, C9-11, ethoxylated, < 2.5 EO (CAS 68439-46-3)
15 Dodecan-1-ol, ethoxylated, < 2.5 EO (CAS 9002-92-0; 3055-93-4)
20 Isooctadecan-1-ol, ethoxylated, 2 EO (CAS 52292-17-8)

Short-term toxicity testing on fish:
1 Alcohols, C12-14 (even numbered), ethoxylated, < 2.5 EO (CAS 68439-50-9)
2 Alcohols, C12-13, ethoxylated, < 2.5 EO (CAS 66455-14-9)
3 Alcohols, C12-15, ethoxylated, < 2.5 EO (CAS 68131-39-5)
4 Alcohols, C16-18 (even numbered) & C18 unsaturated, ethoxyl., <2.5 EO (CAS 68920-66-1)
5 Alcohols, C12-13 linear and branched, ethoxylated, <2.5 EO (CAS 160901-19-9)
7 Alcohols, C9-11, ethoxylated, < 2.5 EO (CAS 68439-46-3)
14 Alcohols, C16-20, ethoxylated, < 2.5 EO (CAS 106232-82-0)
15 Dodecan-1-ol, ethoxylated, < 2.5 EO (CAS 9002-92-0; 3055-93-4)
20 Isooctadecan-1-ol, ethoxylated, 2 EO (CAS 52292-17-8)

Long-term toxicity testing on aquatic invertebrates:
27 Alcohols, C12-13, ethoxylated, 6.5EO (--)

Long-term fish toxicity testing:
3 Alcohols, C12-15, ethoxylated, < 2.5 EO (CAS 68131-39-5).

0.3.2. ECHA analysis of composition of the source substance and test material for toxicological and ecotoxicological predictions

According to Annex XI, Section 1.5, *"Application of the group concept requires that physicochemical properties, human health effects and environmental effects or environmental fate may be predicted from data for reference substance(s) within the group by interpolation to other substances in the group (read-across approach)"*. In order to assess whether the attempted predictions are not compromised by their composition and/or impurities, it is necessary to provide detailed information on the identity and composition of the source substance and of the test material from which the source data has been generated. This is particularly important when the source substance and test materials are UVCB substances, owing to the intrinsic variability in the composition of UVCBs.

According to Article 13(4) of REACH, tests and analysis required under this Regulation shall be carried out in compliance with the principles of good laboratory practices (GLP). The OECD Series on Principles of Good Laboratory Practice and Compliance Monitoring, Number 11 [ENV/MC/CHEM(98)16] requires a careful identification of the test item and description of its characteristics.

More specifically, according to Article 13(3) of REACH, tests that are required to generate information on intrinsic properties of substances shall be conducted in accordance with the test methods laid down in a Commission Regulation. The Test Methods Regulation (EU) 440/2008, as amended by Regulation (EU) 2016/266, requires that "if the test method is used for the testing of a [...] UVCB [...] sufficient information on its composition should be made available, as far as possible, e.g. by the chemical identity of its constituents, their quantitative occurrence, and relevant properties of the constituents".

Your read-across justification provides high level information on the composition of most of the source substances listed above. No information on the composition of the test material used to generate the source data is provided.

ECHA stresses that unambiguous characterisation of the composition of the source substance and test material used to generate the source data is required to evaluate the reliability and uncertainty associated with predicting properties of substances with potential substantial compositional differences. The composition of the selected test material must be reported in the respective endpoint study record, under the test material section. The composition must include all constituents of the test material and their concentration. Without such detailed reporting, ECHA may not be able to confirm that the test material is relevant for the Substance and to all the registrants of the Substance. Consequently, without detailed information on the identity of the source(s) and test material(s) ECHA cannot assess and thus, accept the reported category.

0.3.3. ECHA analysis of physico-chemical properties of the category members for toxicological and ecotoxicological predictions

As noted in the section above, according to Annex XI, Section 1.5, *"Application of the group concept requires that physicochemical properties ... may be predicted from data for reference substance(s) within the group by interpolation to other substances in the group (read-across approach)"*.

In your category justification document you state that the physico-chemical properties of the category members follow a regular pattern. In the provided data matrices for many substances only one value for the category member is reported per physico-chemical property. You have also provided water solubility and partitioning coefficient (Kow) data without any indication that surface activity of category members were taken into account.

With regard to physico-chemical properties, the intrinsic surface activity of many category members interfere with the determination of physico-chemical properties. As explained in ECHA's Guidance on information requirements and chemical safety assessment, Chapter R.7a (version 6.0, July 2017), neither of the test methods for measurements of octanol-water Kow described in the Guidance is applicable to surface active materials. Furthermore, as explained in above referred Guidance document, the UVCB- or multi-constituent nature of respective category members, i.e. properties of specific constituents present in these substances, needs to be considered when physico-chemical properties of the substances are estimated.

First, ECHA points out that an average value of a physico-chemical property for these UVCB substances does not allow an assessment of how the physicochemical properties of the constituents of the category members may be related to the predicted properties. In particular, it is not possible to assess whether the attempted predictions are not compromised by the substance's composition and/or impurities.

Second, ECHA notes that you have not considered surface activity of the category members to more accurately indicate the partition properties of these substances. The experimental methods used to measure values for Kow are not well suited for surfactants and need specific considerations before being used for such substances, which was not the case here. According to the Guidance on information requirements and chemical safety assessment, Chapter R.7a (version 6.0, July 2017): *"A working approach for surfactants might be the comparison of measured solubilities in octanol and water. However, it would then be prudent to take the*

critical micelle concentration in water (CMC) as a solubility limit, in order to avoid the artefact of unrealistically low Kow values".

As a consequence, ECHA considers that the information provided in the category justification document for physicochemical properties such as the water solubility and Kow do not constitute an adequate basis to support the read-across predictions addressed in the present decision.

0.3.4. Assessment of read-across adaptation for human health properties: Missing information to support the hypothesis

Annex XI, Section 1.5 of the REACH Regulation states that "*adequate and reliable documentation of the applied method shall be provided*". The ECHA Guidance on information requirements and chemical safety assessment (version 6.0, July 2017), Chapter R.6, Section R.6.2.2.1.f indicates that "*it is important to provide supporting information to strengthen the rationale for the read-across*" as part of the documentation of a read-across approach. The set of supporting information should allow to verify the crucial aspects of the read-across hypothesis and establish that the properties of the registered substance can be predicted from the data on the source substances. ECHA notes that supporting information to compare the toxicity profiles of category members and source substances is missing, as explained below.

According to the information provided in the read-across justification document, you hypothesise that "*the toxicity of AE increases with increasing grade of ethoxylation, while the alkyl chain length does not have a meaningful influence on the toxicity*". In accordance with this hypothesis you consider that the properties of the members of the category, including the substance subject to this decision, for the toxicological endpoints under consideration can be predicted from the substances mentioned in section 0.3.1 above.

Firstly, ECHA understands that your read-across hypothesis is based on an anticipated increase in toxicity associated with an increase in ethoxylation degree. You consider that ethoxylated alcohols with average ethoxylation degrees of 6 to 10 constitute a conservative basis for predicting properties of ethoxylated alcohols with average ethoxylation degrees of 0 to 2,5. ECHA points out that the source substances with average ethoxylation degree higher than 0-2.5 do not fulfil the category definition in the interest of the REACH Regulation. They are therefore outside of the applicability domain. You have not explained how the studies performed with substances outside the applicability domain would allow to predict properties of the members of this category with the hypothesis based on increasing toxicity with increased ethoxylation degree.

Secondly, data generated with free alcohols informs on the individual properties of ethoxylated alcohols with an ethoxylation degree of 0. ECHA observes that the toxicological properties of ethoxylated alcohols with ethoxylation degrees of one or two may be different from the free alcohols with ethoxylation degree of zero. However, no relevant toxicological information is available; neither on the properties of the ethoxylated constituents of the category members, nor on the properties of the category members with average ethoxylation degrees ranging from 1-2.5 as a whole. In the absence of such information, it is not possible to compare the toxicological profiles of the source substances with average ethoxylation degrees of 6 to 10 with those of the category members. Therefore, ECHA considers that your claim of increasing toxicity with increasing ethoxylation degree is not supported, since there is no information on toxicological properties of alcohols with an ethoxylation degree of one or two. Furthermore, there is no information on how toxicological data can be used to establish

such a trend despite clear structural differences between free alcohols and ethoxylated alcohols.

For the reasons as set out above, ECHA considers that this grouping and read-across approach does not provide a reliable basis whereby the human health effects of the registered substance may be predicted from data for reference substance(s) within the group. Hence, this approach does not comply with the general rules of adaptation as set out in Annex XI, Section 1.5. of the REACH Regulation.

ECHA notes that there are specific considerations for the individual endpoints which also result in a failure to meet the requirement of Annex XI, 1.5, and these are set out under the endpoint concerned.

0.3.5. Assessment of read-across adaptation for environmental properties - aquatic toxicity

0.3.5.1. Reliability of studies provided for the aquatic toxicity

As required in Annex XI, Section 1.5. of the REACH Regulation, source studies should be adequate for the purpose of classification and labelling and/or risk assessment, have adequate and reliable coverage of the key parameters and cover an exposure duration comparable to or longer than the corresponding test method referred to in Article 13(3), and adequate and reliable documentation of the applied method shall be provided.

ECHA observes that the technical registration dossiers of the category members include a high number of aquatic toxicity studies conducted with the category members or with supporting substances.

ECHA has evaluated studies provided in the technical registration dossiers of the category members and also referred to in your category justification document. Following this assessment, ECHA has identified several deficiencies.

Firstly, from the information available in the technical registration dossers of the category members and in the category justification document, ECHA understands that the members of the category are readily biodegradable, have relatively high potential for adsorption, are surface active and some of them have constituents which are poorly soluble in water. As noted in the ECHA Guidance on information requirements and chemical safety assessment, Chapter R7b (version 4.0, June 2017) and OECD Guidance Document on Aqueous-phase Aquatic Toxicity Testing of Difficult Chemicals, ENV/JM/MONO (2000)6/REV1, one of the key issues for difficult to test substances is the ability to quantify actual exposure of the test organisms to the test substance. Thus, ECHA considers that analytical verification of the exposure concentrations during the testing period is necessary for such type of substances which may not be stable in the test solution. Therefore, ECHA considers that all aquatic toxicity studies

(i) which were performed without analytical monitoring, and/or
(ii) for which the exposure concentrations were not verified during the testing period (e.g. measured at the beginning and termination of the exposure duration), and/or
(iii) for which there is no evidence that the test item was maintained in the test solution during the testing duration,

are not reliable. The affected studies are detailed in the endpoint-specific sections, below.

Secondly, ECHA notes that a number of aquatic toxicity effect concentrations reported in the technical registration dossiers of the category members are estimated by the Qualitative or

Quantitative structure-activity relationship models (QSARs). ECHA notes that, according to Annex XI section 1.3, results of QSARs may be used instead of testing when four main conditions are met, including that adequate and reliable documentation of the applied method is provided. ECHA *Guidance on information requirements and chemical safety assessment, Chapter R.6: QSARs and grouping of chemicals* (May 2008) describes different types of QSAR reporting formats which would include information addressing other three conditions necessary to be met for results of QSAR to be used instead of testing. ECHA notes that when such documentation is not provided in the registration dossier, ECHA cannot assess that scientific validity has been established for the used model, that the substance falls within the applicability domain of the used model and whether results are adequate for the purpose of classification, labelling, and risk assessment. Therefore, ECHA considers that the QSAR-estimated aquatic toxicity effect concentrations are not reliable and such predictions cannot be used as source studies.

Thirdly, ECHA observes that some of the aquatic toxicity studies were performed according to non-standard test methods (i.e. not the test methods referred in Article 13(3)) and without providing any justification under Annex XI, section 1.1.2 of REACH. ECHA considers that these source studies cannot be used for the category approach when criteria listed in Annex XI, sections 1.1.2 and 1.5. of the REACH Regulation are not met. ECHA notes that there is no adequate documentation provided for these studies which would justify the use of results of such studies for the purpose of classification and labelling and risk assessment. The affected studies and there deficiencies are detailed in the endpoint-specific sections 6-8, below.

ECHA considers that the studies having the above mentioned deficiencies are not reliable and cannot be used as source studies.

0.3.5.2. Missing information to support the hypothesis

Annex XI, Section 1.5 of the REACH Regulation states that "*adequate and reliable documentation of the applied method shall be provided*". The ECHA Guidance on information requirements and chemical safety assessment (version 6.0, July 2017), Chapter R.6, Section R.6.2.2.1.f indicates that "*it is important to provide supporting information to strengthen the rationale for the read-across*" as part of the documentation of a read-across approach. The set of supporting information should allow to verify the crucial aspects of the read-across hypothesis and establish that the properties of the registered substance can be predicted from the data on the source substances.

According to the information provided in the read-across justification document, you hypothesise that the aquatic toxicity of the substances increases with an increase in the length of the hydrocarbon chain. You further state that the trend is limited by water solubility and thus the acute aquatic toxicity of low water soluble category members with a hydrocarbon chain length of above 15 is clearly reduced. Furthermore, you discuss that "*presence of ethoxy groups decreases log Kow and the toxicity, but because of an ethoxylation limit of 2.5, the effect is also limited*". Finally, you note that the category members show the expected trend in regard of acute toxicity.

First, your hypothesis is based on hydrocarbon chain length and you claim that the influence of ethoxylation degree on Kow and the predicted aquatic toxicity is limited due to the ethoxylation limit of 2.5. ECHA points out that the ethoxylation limit you refer to is an average ethoxylation across the constituents of a category member and therefore the true ethoxylation of the constituents may be larger than 2.5. Due to the uncertainty with Kow of the category members, as explained in section 0.3.3. above, the influence of ethoxylation on Kow cannot

be evaluated by the information provided in the category justification document. Likewise you have not provided evidence that the ethoxylation degree would not affect the predicted aquatic toxicity.

Second, ECHA notes that due to the deficiencies summarised in the section 0.3.5.1 above most of the information provided on aquatic toxicity is considered as not reliable and cannot be used support the category hypothesis. Only in one short-term fish toxicity study with substance [#1] the effect concentrations based on measured geometric mean concentrations were reported. ECHA understands that this study meets the requirements noted under section 0.3.5.1 above and can be thus considered reliable. No other aquatic toxicity studies which fulfil the above mentioned reliability requirements were provided for the endpoints under consideration across the category.

Finally, ECHA understands that this category of ethoxylated alcohols covers substances with an average EO 0-2.5, and the full range of alcohol carbon chain lengths C6-C20. ECHA points out that the source substances with average ethoxylation degree higher than 0-2.5 do not fulfil the category definition in the interest of the REACH Regulation. They are therefore outside of the applicability domain. You have not explained how the studies performed with substances outside the applicability domain would allow to predict properties of the members of this category with hypothesis based on increase of aquatic toxicity with increase of carbon chain length.

Consequently the data density across the category members is limited in the aquatic toxicity endpoints. With such limited reliable information available on the aquatic toxicity, no quantitative trend between the category members can be established for these endpoints. Therefore, the information provided in your dossier is not sufficient to support your read-across hypothesis that there is a trend of increasing aquatic toxicity with increasing length of the hydrocarbon chain.

For the reasons set out above, ECHA considers that this grouping and read-across approach does not provide a reliable basis whereby the ecotoxicological effects of the registered substance may be predicted from data for reference substance(s) within the group, or from substances which are outside the applicability domain.

0.4. Comments on the draft decision

In your comments to the draft decision you state that "*an overall approach to improve the AE category is applied by the registrants* [...]", "*the registrants agree that the level of detail in study summaries and test material characterisation is crucial and, hence, adequate data will be provided in the updated dossiers*" and you detail your testing strategy, which is based on

1) combined repeated dose toxicity studies with the reproduction/ developmental toxicity screening tests (OECD TG 422) with full study design as bridging studies planned to be conducted in two phases to potentially reduce test animal numbers (limit test) when there is an absence of effects (NOAELs ≥1000 mg/kg bw/d) in the first phase;
2) higher tier studies (e.g. 90-day subchronic toxicity study; pre-natal developmental toxicity study in a first and second species) conducted for representative category members based on the outcomes of the bridging studies;
3) aquatic toxicity bridging studies with algae and further studies with other trophic levels (aquatic invertebrates and fish) to be conducted including long-term toxicity studies when necessary;
4) justification to be developed for the existing Quantitative Structure-Activity Relationships (QSARs) to predict (long-term aquatic) toxicity of multiple alcohol

ethoxylate mixtures, to be then used as supplementary data in combination with the newly generated experimental (aquatic) toxicity data.

ECHA acknowledges that you intend to fulfil the information requirements following the updated testing strategy in a stepwise approach. In your comments you did not submit any further information to support your testing strategy. You may, under your own responsibility, carry out your testing programme. If it fails and the resulting data does not support, or even contradict, your read-across hypothesis, you remain responsible for complying with this decision by the set deadline.

In the event of an updated read-across adaptation ECHA notes that ecotoxicological similarity in one or multiple endpoints does not necessarily lead to predictable or similar ecotoxicological properties in other endpoints (e.g. toxicity or it's pattern to the test organisms used in algae, growth inhibition test might differ from the toxicity or it's pattern to the test organisms used in short- and long-term fish and aquatic invertebrates toxicity tests)

0.5. Conclusion on the read-across approach for (eco)toxicological properties

The adaptation of the standard information requirements in the technical dossier is based on the read-across approach examined above. ECHA does not consider the read-across justification to be a reliable basis to predict the properties of the registered substance for the reasons set out above. Thus, the adaptation does not comply with the general rules of adaptation as set out in Annex XI, Section 1.5. Therefore, ECHA rejects all adaptations in the technical dossier that are based on Annex XI, Section 1.5

III. Specific considerations on the information requirements

3. Sub-chronic toxicity study (90-day), oral route (Annex IX, Section 8.6.2.)

A "sub-chronic toxicity study (90 day)" is a standard information requirement as laid down in Annex IX, Section 8.6.2. of the REACH Regulation. Adequate information on this endpoint needs to be present in the technical dossier for the registered substance to meet this information requirement.

You have sought to adapt this information requirement according to Annex XI, Section 1.5. of the REACH Regulation by providing study records for sub-acute, subchronic and chronic oral studies with the analogue substances

# 21	PEG 200 and PEG 400	(CAS 25322-68-3)
# 22	C12 EO 0	(CAS 112-53-8)
# 23	C16 EO 0	(CAS 36653-82-4)
# 24	C9-11 EO 6	(CAS 68439-46-3)
# 25	C14-15 EO 7	(CAS 68951-67-7)
# 32	C16-18 EO 10	(CAS 68920-66-1)

As explained above in Appendix 1, section II.0 (grouping of substances and read-across approach) of this decision, your adaptation of the information requirement is rejected.

Furthermore ECHA notes that, for the provided studies on the structurally-related substance listed above, a robust study summary is required under Article 10(a)(vii), and ECHA considers that the information provided in the endpoint study record does not meet the requirements of a robust study summary, as defined in Article 3(28). Specifically, the endpoint study

records do not allow and independent assessment due to lack of information on test material identity, investigated organs, and effects observed. Furthermore, for studies with source substances #21, #22, #23, #24, #32 above, basic information on test species/strain/sex, on test conditions, observations and results is missing. ECHA has provided a practical guide for "How to report robust study summaries", available at: http://echa.europa.eu/documents/10162/13643/pg_report_robust_study_summaries_en.pdf. ECHA considers there is not sufficient information available to make an independent assessment of the study minimising the need to consult the full study report, and accordingly considers that for this study, you have failed to meet the requirement of Annex XI, Section 1.5. that adequate and reliable documentation of the applied method shall be provided.

As explained above, the information provided on this endpoint for the registered substance in the technical dossier does not meet the information requirement. Consequently there is an information gap and it is necessary to provide information for this endpoint.

ECHA has evaluated the most appropriate route of administration for the study. Based on the information provided in the technical dossier and/or in the chemical safety report, ECHA considers that the oral route - which is the preferred one as indicated in ECHA Guidance on information requirements and chemical safety assessment (version 65.0, December July 20176) Chapter R.7a, Section R.7.5.4.3 - is the most appropriate route of administration. More specifically, even though the information indicates that human exposure to the registered substance by the inhalation route is likely, there is no concern for severe local effects following inhalation exposure. Furthermore, ECHA points out that no repeated dose toxicity study by the oral route is available. Hence, the test shall be performed by the oral route using the test method OECD TG 408.

According to the test method OECD TG 408 the rat is the preferred species. ECHA considers this species as being appropriate and testing should be performed with the rat.

Therefore, pursuant to Article 41(1) and (3) of the REACH Regulation, you are requested to submit the following information derived with the registered substance subject to the present decision: Repeated dose 90-day oral toxicity study (test method: OECD TG 408) in rats.

Notes for your considerations:

The Extended one-generation reproductive toxicity study (EOGRTS) according to Annex X, Section 8.7.3. is not part of this decision because the results of the Sub-chronic toxicity study (90-day) are considered crucial to inform on the study design of the EOGRTS. Therefore, the results of the Sub-chronic toxicity study (90-day) should be used, among other relevant information, to decide on the study design of the EOGRTS, in case such study is required.

ECHA may therefore launch a separate compliance check at a later stage addressing the EOGRTS information requirement.

Alternatively, you may also consider submitting a testing proposal for an extended one-generation reproductive toxicity study together with the results of the requested Sub-chronic toxicity study (90-day). The testing proposal should include a justification for its study design following ECHA *Guidance on information requirements and chemical safety assessment* Chapter R.7a, Section R.7.6 (version 6.0, July 2017), taking into account the results of the Sub-chronic toxicity study (90-day).

4. Pre-natal developmental toxicity study (Annex IX, Section 8.7.2.) in a first species

A "pre-natal developmental toxicity study" (test method OECD TG 414) for a first species is a standard information requirement as laid down in Annex IX, Section 8.7.2. of the REACH Regulation. Adequate information on this endpoint needs to be present in the technical dossier for the registered substance to meet this information requirement.

You have sought to adapt this information requirement according to Annex XI, Section 1.5. of the REACH Regulation by providing a study record for a two generation reproductive study (similar to OECD TG 416) with the analogue substance #24 Alcohol C9+11, ethoxylated (EC no 614-482-0).

However, as explained above in Appendix 1, section II.0 (grouping of substances and read-across approach) of this decision, your adaptation of the information requirement is rejected.

Furthermore, this study does not provide the information required by Annex IX, Section 8.7.2., because a two generation study (OECD TG 416) does not cover key parameter of a pre-natal developmental toxicity study (OECD TG 414), such as skeletal and visceral investigations. Furthermore, the test material was administered by the dermal route and on three instead of five days per week, and did not reach the limit dose. ECHA notes that you assume an absorption rate of 2% for the dermal route but 100% for the oral route. Hence, the dermal route is not appropriate to identify the reproductive hazard of the registered substance.

Therefore, your adaptation of the information requirement is rejected.

As explained above, the information provided on this endpoint for the registered substance in the technical dossier does not meet the information requirement. Consequently there is an information gap and it is necessary to provide information for this endpoint.

According to the test method OECD TG 414, the rat is the preferred rodent species and the rabbit the preferred non-rodent species. On the basis of this default assumption ECHA considers testing should be performed with rats or rabbits as a first species.

ECHA considers that the oral route is the most appropriate route of administration for substances except gases to focus on the detection of hazardous properties on reproduction as indicated in ECHA *Guidance on information requirements and chemical safety assessment* (version 6.0, July 2017) Chapter R.7a, Section R.7.6.2.3.2. Since the substance to be tested is a liquid, ECHA concludes that testing should be performed by the oral route.

Therefore, pursuant to Article 41(1) and (3) of the REACH Regulation, you are requested to submit the following information derived with the registered substance subject to the present decision: Pre-natal developmental toxicity study (test method: OECD TG 414) in a first species (rat or rabbit) by the oral route.

5. Pre-natal developmental toxicity study (Annex X, Section 8.7.2.) in a second species

Pre-natal developmental toxicity studies (test method OECD TG 414) on two species are part of the standard information requirements for a substance registered for 1000 tonnes or more

per year (Annex IX, Section 8.7.2., column 1, Annex X, Section 8.7.2., column 1, and sentence 2 of introductory paragraph 2 of Annex X of the REACH Regulation).

You have sought to adapt this information requirement according to Annex IX, Section 8.7.2., column 2. You provided the following summary of the justification for the adaptation: "*due to the low systemic toxicity, the rapid excretion of AE, the fact that the involved metabolic pathways are common in all kind of animal species and the known low toxicity of AE metabolites, conducting an oral developmental toxicity study in non-rodents is scientifically not of high priority*".

ECHA notes that the adaptation possibility you referred to specifically relates to Annex IX dossiers and the need to perform a study in a second species at this tonnage level. For Annex X dossiers, a pre-natal developmental toxicity study in a first and a second species are standard information requirements. The adaptation of a study in the second species "*should be based on the outcome of the first test and all other relevant available data*". However, the technical dossier neither contains relevant and reliable information on a pre-natal developmental toxicity study with the registered substance nor with any other substance of your category.

Furthermore, your justification provided above could be interpreted as an attempt to adapt the information requirement according to Annex IX/X, Section 8.7 column 2, third indent. However, your adaptation relies on studies with substances outside the applicability domain of the category, as explained above in Appendix 1, section 'II.0. Grouping and read-across approach of this decision'. Furthermore, your registration dossier indicates widespread professional and consumer use and thus, does not fulfil the third cumulative precondition of Annex X, Section 8.7. Column 2 third indent ("*no or no significant human exposure*"). Consequently, your adaptation does not meet the specific rules for adaptation of Annex X, Section 8.7, column 2.

Therefore, your adaptation of the information requirement is rejected.

As explained above, the information provided on this endpoint for the registered substance in the technical dossier does not meet the information requirement. Consequently there is an information gap and it is necessary to provide information for this endpoint.

According to the test method OECD TG 414, the rat is the preferred rodent species and the rabbit the preferred non-rodent species. On the basis of this default consideration, ECHA considers testing should be performed with rabbits or rats as a second species, depending on the species tested in the first pre-natal developmental toxicity study.

ECHA considers that the oral route is the most appropriate route of administration for substances except gases to focus on the detection of hazardous properties on reproduction as indicated in ECHA *Guidance on information requirements and chemical safety assessment* (version 6.0, July 2017) Chapter R.7a, Section R.7.6.2.3.2. Since the substance to be tested is a liquid, ECHA concludes that testing should be performed by the oral route.

Therefore, pursuant to Article 41(1) and (3) of the REACH Regulation, you are requested to submit the following information derived with the registered substance subject to the present decision: Pre-natal developmental toxicity study (test method: OECD TG 414) in a second species rabbit or rat by the oral route.

Notes for your consideration

You are reminded that before performing a pre-natal developmental toxicity study in a second species you must consider the specific adaptation possibilities of Annex X, Section 8.7., column 2 and general adaptation possibilities of Annex XI. If the results of the test in the first species with other available information enable such adaptation, testing in the second species should be omitted and the registration dossier should be updated containing the corresponding adaptation statement.

6. Growth inhibition study aquatic plants (Annex VII, Section 9.1.2.)

"Growth inhibition study aquatic plants" is a standard information requirement as laid down in Annex VII, Section 9.1.2. of the REACH Regulation. Adequate information on this endpoint needs to be present in the technical dossier for the registered substance to meet this information requirement.

ECHA observes that you have provided in the technical dossier a study records for three growth inhibition studies with aquatic plants: key study and supporting study, both with the registered substance, and one more study with analogue substance (CAS number 106232-83-1) which is neither listed as category member nor as supporting analogue substance in the read-across justification document. However, these studies are not reliable and thus, do not provide the information required by Annex VII, Section 9.1.2.

First, for the study with analogue substance (CAS number 106232-83-1) no adequate and reliable documentation of the applied read-across is provided, as required by Annex XI, Section 1.5. Thus, ECHA cannot assess reliability of the proposed read-across. Therefore, ECHA rejects your adaptation for the "Growth inhibition study aquatic plants" based on Annex XI, Section 1.5.

Second, ECHA observes that the information reported for the studies in the registration dossier does not provide evidence that the test item was maintained in the test solution during the testing/exposure period - for none of the reported studies analytical verification of the test item during the study period is reported. Therefore for the reasons explained above in Section "*II.0 Grouping of substances and read-across approach*", section 0.3.5.1, ECHA considers that these studies are not reliable.

Furthermore, ECHA observes that in the registration dossier for this endpoint you have also reported toxicity effect concentration estimated by the QSAR – "*Alcohol ethoxylte specific QSAR, with the log Kow as the predictor variable*". ECHA notes that there is no adequate and reliable documentation of the applied method provided in the registration dossier. As noted above in Section "*II.0. Grouping of substances and read-across approach*", section 0.3.5.1, when such documentation is not provided in the registration dossier, ECHA cannot assess that for the used model scientific validity has been established, that the substance falls within the applicability domain of the used model and whether results are adequate for the purpose of classification and labelling, and risk assessment.

Moreover, ECHA notes that based on the information provided in the registration dossier registered substance is surface active. Following the *Guidance on information requirements and chemical safety assessment, Chapter R.7c* (version 3.0, June 2017), ECHA considers that, without specific and adequate justification, for the surface active agents the Kow is not the suitable parameter to predict bioaccumulation and toxicity potential of these substances. Therefore, ECHA considers that QSAR estimated aquatic toxicity effect concentrations do not comply with the rules set forth under Annex XI, section 1.3 of REACH and are not reliable.

Thus, as explained above, the information provided on this endpoint for the registered substance in the technical dossier does not meet the information requirement. Consequently there is an information gap and it is necessary to provide information for this endpoint.

According to ECHA *Guidance on information requirements and chemical safety assessment, Chapter R.7b* (version 4.0, June 2017) Algae growth inhibition test (test method EU C.3. / OECD TG 201) is the preferred test to cover the standard information requirement of Annex VII, Section 9.1.2.

Therefore, pursuant to Article 41(1) and (3) of the REACH Regulation, you are requested to submit the following information derived with the registered substance subject to the present decision: Algae growth inhibition test, EU C.3./OECD TG 201).

7. Long-term toxicity testing on aquatic invertebrates (Annex IX, Section 9.1.5.)

"Long-term toxicity testing on aquatic invertebrates" is a standard information requirement as laid down in Annex IX, Section 9.1.5. of the REACH Regulation. Adequate information on this endpoint needs to be present in the technical dossier for the registered substance to meet this information requirement.

According to the ECHA Guidance on Information Requirements and Chemical Safety Assessment, Chapter R.7b (Version 4.0, June 2017) "*For poorly water soluble substances (e.g. water solubility below 1 mg/L or below the detection limit of the analytical method of the test substance) it should instead of an acute test be considered to perform a long term test (REACH Annex VII and VIII, 9.1) bearing in mind any possibilities for waiving (REACH Annex XI).*"

ECHA understands that based on the information provided in the registration dossier a number of constituents of the registered substance is poorly soluble in water (calculated water solubility in water of constituents ranges between 0.1876 and 13.18 mg/l at 25 °C). Poorly soluble in water substances require longer time to be significantly taken up by the test organisms and so steady state conditions are likely not to be reached within the duration of a short-term toxicity test. For this reason, short-term tests may not give a true measure of toxicity for hydrophobic substances and toxicity may actually not even occur at the water solubility limit of the substance if the test duration is too short. Still, long-term toxicity cannot be excluded and should be investigated. Thus, ECHA considers that for the registered substance short-term aquatic toxicity testing is not sufficient or relevant, and long-term aquatic toxicity testing should be performed.

You have sought to adapt this information requirement according to Annex XI, Section 1.5. of the REACH Regulation by providing in the technical dossier a study record for the key long-term toxicity testing on aquatic invertebrates study (according to USEPA-TSCA (U.S. EPA, 1992) test guideline) with the supporting analogue substance [28].

However, as explained above in Appendix 1, Section "*II.0. Grouping of substances and read-across approach*" of this decision, your adaptation of the information requirement according to Annex XI, Section 1.5. is rejected.

Furthermore, ECHA notes that information provided in the registration dossier for this study does not provide evidence that the test item was maintained in the test solution during the

testing/exposure period and it is not specified which measured concentrations were used for estimation of toxic effect concentrations. Therefore for the reasons explained above in Section "*0. Grouping of substances and read-across approach*", section 0.3.5.1, ECHA considers that this source study is not reliable.

Furthermore, you have also reported toxicity effect concentration estimated by the QSAR – "*Alcohol ethoxylte specific QSAR, with the log Kow as the predictor variable*". ECHA notes that there is no adequate and reliable documentation of the applied method provided in the registration dossier. As noted above in Section "*0. Grouping of substances and read-across approach*", section 0.3.5.1., when such documentation is not provided in the registration dossier, ECHA cannot assess that for the used model scientific validity has been established, that the substance falls within the applicability domain of the used model and whether results are adequate for the purpose of classification and labelling, and risk assessment.

Moreover, ECHA notes that based on the information provided in the registration dossier registered substance is surface active. ECHA considers that for the surface active agents the Kow is not the suitable parameter to predict bioaccumulation and toxicity potential of these substances. Therefore, ECHA considers that QSAR estimated aquatic toxicity effect concentrations do not comply with the rules set forth under Annex XI, section 1.3 of REACH and are not reliable.

Therefore, your adaptation of the information requirement cannot be accepted.

As explained above, the information provided on this endpoint for the registered substance in the technical dossier does not meet the information requirement. Consequently there is an information gap and it is necessary to provide information for this endpoint.

According to ECHA *Guidance on information requirements and chemical safety assessment, Chapter R.7b* (version 4.0, June 2017) *Daphnia magna* reproduction test (test method EU C.20. / OECD TG 211) is the preferred test to cover the standard information requirement of Annex IX, Section 9.1.5.

Therefore, pursuant to Article 41(1) and (3) of the REACH Regulation, you are requested to submit the following information derived with the registered substance subject to the present decision: Daphnia magna reproduction test (test method: EU C.20./OECD TG 211).

8. Long-term toxicity testing on fish (Annex IX, Section 9.1.6.1.)

"Long-term toxicity testing on fish" is a standard information requirement as laid down in Annex IX, Section 9.1.6. of the REACH Regulation. Adequate information on Fish, early-life stage (FELS) toxicity test (Annex IX, 9.1.6.1.), or Fish, short-term toxicity test on embryo and sac-fry stages (Annex IX, 9.1.6.2.), or Fish, juvenile growth test (Annex IX, 9.1.6.3.) needs to be present in the technical dossier for the registered substance to meet this information requirement.

As explained under section 7 above, ECHA considers that for the registered substance short-term aquatic toxicity testing is not sufficient or relevant, and long-term aquatic toxicity testing should be performed.

ECHA observes that you have provided in the technical dossier a study records for two key long-term toxicity testing on fish studies (both neither follow any specific test guideline nor comply with GLP requirements) with the registered substance. However, these studies are

not reliable and thus, do not provide the information required by Annex IX, Section 9.1.6. ECHA notes that information provided in the registration dossier for these studies does not provide evidence that the test item was maintained in the test solution during the testing/exposure period and it is not specified which measured concentrations were used for estimation of toxic effect concentrations. Moreover, there is no adequate documentation provided for these studies which would justify the use of results of studies performed according to non-standard test methods for the purpose of classification and labelling and risk assessment. ECHA considers that these source studies (performed according to non-standard test methods, i.e. not the test methods referred in Article 13(3)) cannot be used for the category approach when criteria listed in Annex XI, sections 1.1.2 and 1.5. of the REACH Regulation are not met.

Furthermore, ECHA observes that in the registration dossier for this endpoint you have also reported toxicity effect concentration estimated by the QSAR – "*Alcohol ethoxylte specific QSAR, with the log Kow as the predictor variable*". ECHA notes that there is no adequate and reliable documentation of the applied method provided in the registration dossier. As noted above in Section "*II.0. Grouping of substances and read-across approach*", section 0.3.5.1., when such documentation is not provided in the registration dossier, ECHA cannot assess that for the used model scientific validity has been established, that the substance falls within the applicability domain of the used model and whether results are adequate for the purpose of classification and labelling, and risk assessment.

Moreover, as noted above, ECHA considers that for the surface active agents the Kow is not the suitable parameter to predict bioaccumulation and toxicity potential of these substances. Therefore, ECHA considers that QSAR estimated aquatic toxicity effect concentrations do not comply with the rules set forth under Annex XI, section 1.3 of REACH and are not reliable.

Therefore, your adaptation of the information requirement cannot be accepted.

As explained above, the information provided on this endpoint for the registered substance in the technical dossier does not meet the information requirement. Consequently there is an information gap and it is necessary to provide information for this endpoint.

According to ECHA *Guidance on information requirements and chemical safety assessment, Chapter R.7b* (version 4.0, June 2017) fish early-life stage (FELS) toxicity test (test method OECD TG 210), fish short-term toxicity test on embryo and sac-fry stages (test method EU C.15. / OECD TG 212) and fish juvenile growth test (test method EU C.14. / OECD TG 215) are the preferred tests to cover the standard information requirement of Annex IX, Section 9.1.6.

However, the FELS toxicity test according to OECD TG 210 is more sensitive than the fish, short-term toxicity test on embryo and sac-fry stages (test method EU C.15 / OECD TG 212), or the fish, juvenile growth test (test method EU C.14. / OECD TG 215), as it covers several life stages of the fish from the newly fertilized egg, through hatch to early stages of growth (see ECHA Guidance on information requirements and chemical safety assessment, Chapter R7b (version 4.0, June 2017)).

Moreover, the FELS toxicity test is preferable for examining the potential toxic effects of substances which are expected to cause effects over a longer exposure period, or which require a longer exposure period of time to reach steady state (ECHA *Guidance Chapter R7b,* version 4.0, June 2017).

Therefore, pursuant to Article 41(1) and (3) of the REACH Regulation, you are requested to submit the following information derived with the registered substance subject to the present decision: Fish, early-life stage (FELS) toxicity test (test method: OECD TG 210).

Notes for your consideration for aquatic toxicity studies requested

Due to the readily biodegradability, relatively high potential for adsorption, low solubility in water and surface activity of the substance you should consult OECD Guidance Document on Aqueous-phase Aquatic Toxicity Testing of Difficult Chemicals, ENV/JM/MONO (2000)6/REV1 and ECHA *Guidance on information requirements and chemical safety assessment* (version 4.0, June 2017), Chapter R7b, Table R.7.8-3 summarising aquatic toxicity testing of difficult substances for choosing the design of the requested in sections 6-8 above aquatic toxicity tests and for calculation and expression of results of the tests.

Furthermore, if you have reliable aquatic toxicity studies (i) performed with analytical monitoring, and (ii) for which the exposure concentrations are measured during the testing period (e.g. at the beginning and termination of the exposure duration for (semi-)static conditions), and (iii) there is evidence that the test item is maintained in the test solution during the testing period and estimation of toxic effect concentrations is explained and supported by the raw data, these might be used to address information requests justified in sections 6-8 above.

Once results of the tests on aquatic toxicity are available, you shall revise the chemical safety assessment as necessary according to Annex I of the REACH Regulation.

Deadline to submit the requested information in this decision

The deadline indicated in the draft decision to provide the information requested was 18 months from the date of adoption of the decision for the requested subchronic (90-day) toxicity study and 24 months for all other requests.

In your comments to the draft decision, you requested an extension of the deadline by 18 months. You justified your request stating that additional 18 months are needed to perform bridging studies (i.e. OECD TG 422 for all substances).

ECHA set the original deadline in the draft decision to allow for sequential testing for the requests in the decision. Therefore, your request for the extension of the deadline to perform studies that are not requested in this decision (i.e. OECD TG 422) is rejected.

The decisions for Annex X dossiers did not include a request for an OECD TG 422 study, which is reflected in a shorter deadline for these decisions compared to e.g. decisions for Annex IX registrations. ECHA has now harmonized the deadline of all decisions within this category concerning consortial category members and set the deadline to 30 months, except for Sub-chronic toxicity study (90-day).

Appendix 2: Procedural history

For the purpose of the decision-making, this decision does not take into account any updates of your registration after the date when the draft decision was notified to you under Article 50(1) of the REACH Regulation.

The compliance check was initiated on 08 August 2018.

The decision making followed the procedure of Articles 50 and 51 of the REACH Regulation, as described below:

ECHA notified you of the draft decision and invited you to provide comments within 30 days of the notification.

ECHA took into account your comments and amended the deadline.

ECHA notified the draft decision to the competent authorities of the Member States for proposals for amendment.

As no amendments were proposed, ECHA took the decision according to Article 51(3) of the REACH Regulation

Appendix 3: Further information, observations and technical guidance

1. This compliance check decision does not prevent ECHA from initiating further compliance checks on the present registration at a later stage.

2. Failure to comply with the requests in this decision, or to otherwise fulfil the information requirements with a valid and documented adaptation, will result in a notification to the enforcement authorities of your Member State.

3. In relation to the information required by the present decision, the sample of the substance used for the new tests must be suitable for use by all the joint registrants. Hence, the sample should have a composition that is suitable to fulfil the information requirement for the range of substance compositions manufactured or imported by the joint registrants.

   It is the responsibility of all joint registrants who manufacture or import the same substance to agree on the appropriate composition of the test material and to document the necessary information on their substance composition. In addition, it is important to ensure that the particular sample of the substance tested in the new tests is appropriate to assess the properties of the registered substance, taking into account any variation in the composition of the technical grade of the substance as actually manufactured or imported by each registrant.

   If the registration of the substance by any registrant covers different grades, the sample used for the new tests must be suitable to assess these grades. Finally there must be adequate information on substance identity for the sample tested and the grades registered to enable the relevance of the tests to be assessed.