EUROPEAN CHEMICALS AGENCY

~~Confidential~~

Helsinki, 25 February 2021

Addressees
Registrant(s) of Joint_Sub_85455-64-7 as listed in the last Appendix of this decision

Date of submission of the dossier subject to this decision
28/05/2013

Registered substance subject to this decision ("the Substance")
Substance name: C18-C22 alcohols (even numbered), reaction products with maleic anhydride and Sodium bisulfite
EC number: 939-404-5
CAS number: NS

Decision number: Please refer to the REACH-IT message which delivered this communication (in format CCH-D-XXXXXXXXXX-XX-XX/F)

DECISION ON A COMPLIANCE CHECK

Under Article 41 of Regulation (EC) No 1907/2006 (REACH), you must submit the information listed below, by the deadline of ***30 August 2024***.

Requested information must be generated using the Substance unless otherwise specified.

A. Information required from all the Registrants subject to Annex VII of REACH

1. In vitro gene mutation study in bacteria (Annex VII, Section 8.4.1.; test method: EU B.13/14. / OECD TG 471)

2. Growth inhibition study aquatic plants (Annex VII, Section 9.1.2.; test method: EU C.3./OECD TG 201).

B. Information required from all the Registrants subject to Annex VIII of REACH

1. In vitro cytogenicity study in mammalian cells (Annex VIII, Section 8.4.2.; test method: OECD TG 473) or In vitro micronucleus study (Annex VIII, Section 8.4.2.; test method: OECD TG 487)

2. If negative results are obtained in tests performed for the information requirement of Annex VII, Section 8.4.1. and Annex VIII, Section 8.4.2. then: in vitro gene mutation study in mammalian cells, Annex VIIi, Section 8.4.3, test method OECD TG 476 or TG 490

3. Screening for reproductive/developmental toxicity (Annex VIII, Section 8.7.1.; test method: EU B.63/OECD TG 421 or EU B.64/OECD TG 422) by oral route, in rats;

4. Adsorption/ desorption screening (Annex VIII, Section 9.3.1.; test method: OECD TG 106).

C. Information required from all the Registrants subject to Annex IX of REACH

1. Sub-chronic toxicity study (90-day) (Annex IX, Section 8.6.2.; test method: OECD TG 408) by oral route, in rats

2. Pre-natal developmental toxicity study (Annex IX, Section 8.7.2.; test method: OECD TG 414) by oral route, in one species (rat or rabbit)

3. Long-term toxicity testing on aquatic invertebrates (Annex IX, Section 9.1.5.; test method: EU C.20./OECD TG 211)

4. Long-term toxicity testing on fish (Annex IX, Section 9.1.6.; test method: OECD TG 210)

5. Simulation testing on ultimate degradation in surface water (Annex IX, Section 9.2.1.2.; test method: EU C.25./OECD TG 309) at a temperature of 12 °C. Non-extractable residues (NER) must be quantified and a scientific justification of the selected extraction procedures and solvents must be provided.

6. If result from B.4 study are showing high adsorption potential then: Soil simulation testing (Annex IX, Section 9.2.1.3.; test method: EU C.23./OECD TG 307) at a temperature of 12 °C. Non-extractable residues (NER) must be quantified and a scientific justification of the selected extraction procedures and solvents must be provided.

7. If result from B.4 study are showing high adsorption potential then: Sediment simulation testing (Annex IX, Section 9.2.1.4.; test method: EU C.24./OECD TG 308) at a temperature of 12 °C. Non-extractable residues (NER) must be quantified and a scientific justification of the selected extraction procedures and solvents must be provided.

8. Identification of degradation products (Annex IX, 9.2.3.; test method: using an appropriate test method)

9. Bioaccumulation in aquatic species (Annex IX, Section 9.3.2; test method: OECD TG 305, aqueous exposure).

Reasons for the request(s) are explained in the following appendices:

- Appendix entitled "Reasons common to several requests";
- Appendix/Appendices entitled "Reasons to request information required under Annexes VII to IX of REACH", respectively.

Information required depends on your tonnage band

You must provide the information listed above for all REACH Annexes applicable to you, and in accordance with Articles 10(a) and 12(1) of REACH:

- the information specified in Annexes VII, VIII and IX to REACH, for registration at 100-1000 tpa;

You are only required to share the costs of information that you must submit to fulfil your information requirements.

How to comply with your information requirements

To comply with your information requirements you must submit the information requested by this decision in an updated registration dossier by the deadline indicated above. You must also update the chemical safety report, where relevant, including any changes to classification and labelling, based on the newly generated information.

You must follow the general testing and reporting requirements provided under the Appendix entitled "Requirements to fulfil when conducting and reporting new tests for REACH purposes". In addition, you should follow the general recommendations provided under the Appendix entitled "General recommendations when conducting and reporting new tests for REACH purposes". For references used in this decision, please consult the Appendix entitled "List of references".

The studies relating to biodegradation and bioaccumulation are necessary for the PBT assessment. However, to determine the testing needed to reach the conclusion on the persistency and bioaccumulation of the Substance you should consider the sequence in which these tests are performed and other conditions described in Appendix entitled "Requirements to fulfil when conducting and reporting new tests for REACH purposes".

Appeal

This decision, when adopted under Article 51 of REACH, may be appealed to the Board of Appeal of ECHA within three months of its notification to you. Please refer to http://echa.europa.eu/regulations/appeals for further information.

Failure to comply

If you do not comply with the information required by this decision by the deadline indicated above, ECHA will notify the enforcement authorities of your Member State.

Authorised[1] under the authority of Christel Schilliger-Musset, Director of 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 on Reasons common to several requests

1. Assessment of your read-across approach under Annex XI, Section 1.5.

Among others, you seek to adapt the following standard information requirements by applying read-across approaches in accordance with Annex XI, Section 1.5:

- In vitro gene mutation study in bacteria (Annex VII, Section 8.4.1.)
- In vitro cytogenicity study in mammalian cells or in vitro micronucleus study (Annex VIII, Section 8.4.2.)
- In vitro gene mutation study in mammalian cells (Annex VIII, Section 8.4.3.)
- Sub-chronic toxicity study (90-day), (Annex IX, Section 8.6.2.)
- Screening for reproductive/developmental toxicity (Annex VIII, Section 8.7.1.)
- Pre-natal developmental toxicity study (Annex IX, Section 8.7.2.)

ECHA has considered the scientific and regulatory validity of your read-across approach(es) in general before assessing the specific standard information requirements in the following appendices.

Annex XI, Section 1.5. specifies two conditions which must be fulfilled whenever a read-across approach is used. 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 (addressed under 'Assessment of prediction(s)').

Additional information on what is necessary when justifying a read-across approach can be found in the ECHA Guidance[2] and related documents[3, 4].

ECHA concluded that there are shortcoming(s) that are common to all information requirements under consideration and also shortcoming(s) that are specific for these information requirements individually. Altogether they result in a failure to meet the requirement of Annex XI, 1.5. The common shortcoming(s) are set out here, while the specific shortcomings are set out under the information requirement concerned in the Appendices below.

Absence of read-across documentation

Annex XI, Section 1.5 requires that whenever read-across is used adequate and reliable documentation of the applied method must be provided. Such documentation must provide a justification for the read-across including a hypothesis, explanation of the rationale for the prediction of properties, and robust study summary(ies) of the source study(ies) together with the information on source substances (such as numerical identification, and compositins).[5]

[2] ECHA Guidance R.6: QSARs and grouping of Chemicals. 2008 (May)
[3] Read-Across Assessment Framework (RAAF). 2017 (March)
[4] Read-across assessment framework (RAAF) - considerations on multi-constituent substances and UVCBs. 2017 (March)
[5] Read-Across Assessment Framework (RAAF). Considerations on multi-consitituent substances and UVCBs.

You have provided studies conducted with other substances (source substances) than your Substance in order to comply with the REACH information requirements. You have not provided documentation as to why this information is relevant for your Substance.

In the absence of such documentation, ECHA cannot verify that the properties of your Substance can be predicted from the data on the source substance(s).

Conclusions on the read-across approach

As explained above, you have not established that relevant properties of the Substance can be predicted from data on the analogue substance. Therefore, your adaptation does not comply with the general rules of adaptation as set out in Annex XI, Section 1.5. and your grouping and read-across approach is rejected.

Appendix A: Reasons to request information required under Annex VII of REACH

1. In vitro gene mutation study in bacteria

An *in vitro* gene mutation study in bacteria is a standard information requirement in Annex VII to REACH.

You have adapted this information requirement by using a Grouping of substances and read-across approach under Annex XI, Section 1.5.

You have provided a key study in your dossier:

- In vitro gene mutation study in bacteria (OECD TG 471) ([redacted] 2012) conducted with a source substance Alkenes hydroformylated, sulfosuccinates, sodium salt.

We have assessed this information and identified the following issues:

For the general reason explained above in the *Appendix on Reasons common to several requests*, section 1, your adaptation is rejected.

Therefore, the information you provided do not fulfil the information requirement.

Study design

To fulfil the information requirement for the Substance, the *in vitro* gene mutation study in bacteria (OECD TG 471) is considered suitable.

In your comments on the draft decision you agree to perform the requested study on the Substance to fulfil this information requirement.

2. Growth inhibition study aquatic plants

Growth inhibition study aquatic plants is a standard information requirement in Annex VII to REACH.

You have adapted this information requirement by using a Grouping of substances and read-across approach under Annex XI, Section 1.5 using the following:

- OECD TG 201 key study on the source substance N-C18-unsatd. acyl derivs. sulphosuccinate, disodium salts ([redacted] 2013, report [redacted]);
- OECD TG 201 key study on the source substance sulfosuccinate of lanolin alcohol ([redacted] 2012).

We have assessed this information and identified the following issue(s):

Annex XI, Section 1.5. specifies two conditions which must be fulfilled whenever a read-across approach is used. 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.

Additional information on what is necessary when justifying a read-across approach can be found in the ECHA Guidance R.6 and related documents.

You predict the properties of the Substance from the structurally similar substances: N-C18-unsatd. acyl derivs. sulphosuccinate, disodium salts, and sulfosuccinate of lanolin alcohol.

You have provided the following reasoning for the prediction of ecotoxicological properties: "*Algae toxicity has been tested on two similar substance, both monoesters sulphosuccinate, with long alkyl chain, higher than C18*".

ECHA notes the following shortcomings with regards to prediction.

1. Read-across hypothesis

A read-across hypothesis needs to be provided, establishing why a prediction for a toxicological or ecotoxicological property is reliable. This hypothesis should be based on recognition of the structural similarities and differences between the substances[6]. It should explain why the differences in the chemical structures should not influence the toxicological/ ecotoxicological properties or should do so in a regular pattern.

Your read-across hypothesis is that the structural similarity between the source substances and your Substance is a sufficient basis for predicting the properties of your Substance.

While structural similarity is a prerequisite for applying the grouping and read-across approach, it does not necessarily lead to predictable or similar ecotoxicological properties. You have not provided a well-founded hypothesis to establish a reliable prediction for a ecotoxicological property, based on recognition of the structural similarities and differences between the source substances and your Substance.

2. Characterisation of the source substances

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 structural similarity may be considered as group.*"

According to the ECHA Guidance, "*the purity and impurity profiles of the substance and the structural analogue need to be assessed*", and "*the extent to which differences in the purity and impurities are likely to influence the overall toxicity needs to be addressed, and where technically possible, excluded*". The purity profile and composition can influence the overall toxicity/properties of the Substance and of the source substance(s).[7] Therefore, qualitative and quantitative information on the compositions of the Substance and of the source substance(s) should be provided to allow assessment whether the attempted predictions are compromised by the composition and/or impurities.

Furthermore, whenever the Substance and/or the source substances) are UVCB (Unknown or Variable composition, Complex reaction products or of Biological materials) substances qualitative compositional information of the individual constituents of the substances needs to be provided; as well as quantitative characterisation in the form of information on the

[6] ECHA Guidance R.6
[7] ECHA Guidance R.6, Section R.6.2.3.1

concentration of the individual constituents of these substances; to the extent that this is measurable.[8]

The target substance is a UVCB substance. You do not provide any description of the source substances. Furthermore, for the two source studies provided in the technical dossier that were conducted with these substances, as listed above, no information on the composition of the test material used to generate the source data is provided (see below under '*Adequacy and reliability of source studies*').

Without this information, no qualitative or quantitative comparative assessment of the compositions of the source substances can be completed. Therefore, ECHA considers that it is not possible to assess whether the attempted predictions are compromised by the composition of the source substances.

3. Adequacy and reliability of source studies

According to Annex XI, Section 1.5., if the grouping concept is applied then in all cases the results to be read across should among others:
- be adequate for the purpose of classification and labelling and/or risk assessment, and
- have adequate and reliable coverage of the key parameters addressed in the corresponding test method referred to in Article 13(3).

3A. Information on the test material

To comply with this information requirement, the test material in a study must be representative for the substance (Article 10 and Recital 19 of REACH; ECHA Guidance R.4.1). Therefore, the unambiguous characterisation of the composition of the test material used to generate the source data is required to assess whether the test material is representative for the source substance and thus relevant to the Substance.

For studies i) and ii) above, you have identified the test material as "[redacted]", respectively, without further information, including composition.

In the absence of composition information on the test material, the identity of the test material and its impurities cannot be assessed and you have not demonstrated that the test material is representative for the source substances and thus relevant to the Substance.

3B. Further deficiencies

In order to comply with OECD TG 201, the following requirements must be met by the source studies:

- a reliable analytical method for the quantification of the test material in the test solutions with reported specificity, recovery efficiency, precision, limits of determination (*i.e.* detection and quantification) and working range must be available. Alternatively, a justification why the analytical monitoring of exposure concentrations is not technically feasible must be provided;

[8] ECHA Guidance R.6, Section R.6.2.5.5

- the results can be based on nominal concentration only if there is evidence that the concentration of the test material has been maintained within 20 % of the nominal concentration throughout the test;

In study ii) above:

- no analytical monitoring of exposure was conducted hence nominal concentrations were used;
- no evidence was provided that the exposure concentrations have been maintained for the test substances during the study period.

Based on the above, for study ii) there are critical methodological deficiencies resulting in the rejection of the study results. More specifically, in the absence of analytical monitoring, you have not demonstrated the maintenance of the exposure concentrations during the test.

Therefore, the studies provided do not meet the conditions listed above and therefore these studies are not adequate for the purpose of classification and labelling and/or risk assessment.

Therefore, the information requirement is not fulfilled.

In your comments to the draft decision you agree to perform the growth inhibition aquatic plants study on the Substance.

Study design

The Substance is difficult to test due to the low water solubility (0.375 mg/L) and surface active properties (surface tension < 60 mN/m). OECD TG 201 specifies that, for difficult to test substances, you must consider the approach described in OECD GD 23 or other approaches, if more appropriate for your substance. In all cases, the approach selected must be justified and documented. Due to the properties of Substance, it may be difficult to achieve and maintain the desired exposure concentrations. Therefore, you must monitor the test concentration(s) of the Substance throughout the exposure duration and report the results. If it is not possible to demonstrate the stability of exposure concentrations (i.e. measured concentration(s) not within 80-120% of the nominal concentration(s)), you must express the effect concentration based on measured values as described in OECD TG 201. In case a dose-response relationship cannot be established (no observed effects), you must demonstrate that the approach used to prepare test solutions was adequate to maximise the concentration of the Substance in the test solution.

Appendix B: Reasons to request information required under Annex VIII of REACH

1. *In vitro* cytogenicity study in mammalian cells or *in vitro* micronucleus study

An *in vitro* cytogenicity study in mammalian cells or an *in vitro* micronucleus study is a standard information requirement in Annex VIII to REACH.

You have adapted this information requirement by using a Grouping of substances and read-across approach under Annex XI, Section 1.5.

You have provided a key study in your dossier:

i. *In Vitro* Mammalian Chromosome Aberration Test (OECD TG 473) ([redacted] 2013) with a source substance, Alkenes, hydroformylated sulfosuccinates, sodium salt.

We have assessed this information and identified the following issues:

For the general reason explained in the *Appendix on Reasons common to several requests*, section 1, your adaptation is rejected.

Therefore, the information you provided do not fulfil the information requirement.

Study design

To fulfil the information requirement for the Substance, either *in vitro* cytogenicity study in mammalian cells (Annex VIII, Section 8.4.2., test method OECD TG 473) or *in vitro* micronucleus study (Annex VIII, Section 8.4.2., test method OECD TG 487) are considered suitable.

In your comments on the draft decision you agree to perform one of the requested studies on the Substance to fulfil this information requirement.

2. *In vitro* gene mutation study in mammalian cells

An *in vitro* gene mutation study in mammalian cells is a standard information requirement in Annex VIII to REACH in case of a negative result in the *in vitro* gene mutation test in bacteria and the *in vitro* cytogenicity test.

i. Triggering of the study

Your dossier contains an adaptation for an *in vitro* gene mutation study in bacteria, and an adaptation for an in vitro cytogenicity study in mammalian cells or *in vitro* micronucleus study.

The information for the *in vitro* gene mutation study in bacteria and for the *in vitro* cytogenicity study in mammalian cells or *in vitro* micronucleus study provided in the dossier are rejected for the reasons provided in sections 1 of Appendix A and section 1 of this Appendix.

The result of the requests for information in sections 1 of Appendix A and section 1 of this Appendix will determine whether the present requirement for an *in vitro* mammalian cell gene mutation study in accordance with Annex VIII, Section 8.4.3 is triggered.

ii. Assessment of information provided

You have adapted this information requirement by using a Grouping of substances and read-across approach under Annex XI, Section 1.5.

You have provided a key study in your dossier:

i. *In Vitro* Mammalian Cell Gene Mutation Test (OECD TG 476) ([redacted] 2013) with a source substance, Alkenes, hydroformylated sulfosuccinates, sodium salt.

We have assessed this information and identified the following issues:

For the general reason explained in the *Appendix on Reasons common to several requests*, section 1, your adaptation is rejected.

For this endpoint you read across between the structurally similar substance Alkenes hydroformylated, sulfosuccinates, sodium salt (EC No. 938-654-2) as source substance and the Substance as target substance.

In your dossier, you had provided the following reasoning for the prediction of toxicological properties: *"Considering the similar physicochemical profile and the comparable composition, the two substances are expected to have a comparable toxicokinetic profile and comparable toxicological properties".*

ECHA understands that you intend to predict the properties of the Substance using a read-across hypothesis which assumes that different compounds have the same type of effects. The properties of your Substance are predicted to be quantitatively equal to those of the source substance.

In the comments on the draft decision you confirm your intention to adapt this information requirement by means of grouping and read-across according to Annex XI, Section 1.5, of the REACH Regulation. You also agreed that the *in vitro* mammalian cell gene mutation study is necessary only if the results of the OECD 471 and OECD 473 (or OECD 487) with the Substance are negative.

In your comments, you have further provided a justification for your read-across approach in Annex I of your document/response.

You have compared the composition of the source substance, Alkenes hydroformylated, sulfosuccinates, sodium salt (EC No. 938-654-2) and the Substance, all being UVCBs. You have concluded, *that "the substances consist of the same core structure, i.e. they are [redacted]. There are two differences in the composition of the two substances:*

- *The alkyl constituent ranges from [redacted] in the target substance molecule and from [redacted] in the similar substance*
- *Part of the Similar substance consists of the [redacted], while the target substance does not contain any [redacted]."*

In your comments you further stated, that as the absence of the read-across justification was the only issue recognised and no shortcomings were identified on the study already available in the dossier with source substance, the available *in vitro* gene mutation study in mammalian cells could be used, if the read-across justification (presented in Annex I of your response) is accepted for this endpoint.

You have also stated, that "*In order for the Read Across approach to be justified thoroughly, the results of the OECD 471 and OECD 473 (or OECD 487) for both target and analogue substance should be available (thus, after the final decision).*"

As indicated in your comments, this strategy relies essentially on data which is yet to be generated - *OECD 471 and OECD 473 (or OECD 487) with the Substance* - no conclusion on the compliance can currently be made, as this is work in progress. Should you decide to pursue the strategy presented in your comments, ECHA will assess the compliance in the follow-up to the dossier evaluation.

However ECHA notes the following shortcoming(s) with regards to prediction(s) of toxicological properties.

QSAR Toolbox predictions

You have used as supportive information for your read-across justification, Qualitative or Quantitative structure-activity relationship ((Q)SAR) under Annex XI, Section 1.3. You have provided a QSAR prediction using the OECD QSAR toolbox. You have used the same profiles for the Substance and the source substance.

According to ECHA's Practical guide "How to use and report (Q)SARs", section 3.4, a QSAR Model Reporting Format (QMRF) and a QSAR Prediction Reporting Format (QPRF) are required to establish the scientific validity of the model, to verify that the Substance falls within the applicability domain of the model, and to assess the adequacy of the prediction for the purposes of classification and labelling. If you are planning to use QSAR predictions as a supportive information in the updated dossier, you should submit QMRF and QPRF for each prediction, together with a training set document (OECD Toolbox-training set). In the absence of such documents, the reliability of the QSAR predictions cannot be assessed and in turn this data cannot be considered as supporting a read-across adaptation .

Based on the above, the information you provided do not fulfil the information requirement.

Study design

To fulfil the information requirement for the Substance, either the *in vitro* mammalian cell gene mutation tests using the hprt and xprt genes (OECD TG 476) or the thymidine kinase gene (OECD TG 490) are considered suitable.

3. Screening for reproductive/developmental toxicity

A Screening for reproductive/developmental toxicity study (test method: EU B.63/OECD TG 421 or EU B.64/OECD TG 422) is a standard information requirement under Annex VIII to REACH, if there is no evidence from analogue substances, or *in vitro* methods that the Substance may be a developmental toxicant. There is no information available in your dossier indicating that your Substance may be a developmental toxicant.

You have adapted this information requirement by using a Grouping of substances and read-across approach under Annex XI, Section 1.5.

You have provided two key studies in your dossier:

i. Combined Repeated Dose Toxicity Study with the Reproduction / Developmental

Toxicity Screening Test (OECD TG 422), with source substance Butanedioic acid, 2 (or 3) - sulfo-, 4 - [2- [(1-oxo (C12 - C18 (even numbered) and C18 unsaturated) alkyl)) amino] ethyl] esters, disodium salts ([redacted] 2012)

ii. Three generation study, with source substance Dioctyl Sodium Sulfosuccinate (DSS) (MacKenzie K, 1990)

We have assessed this information and identified the following issues:

For the general reason explained in the *Appendix on Reasons common to several requests*, section 1, your adaptation is rejected.

Based on the above, the information you provided do not fulfil the information requirement.

Information on study design

A study according to the test method EU B.63/OECD TG 421 or EU B.64/OECD TG 422 must be performed in rats with oral[9] administration of the Substance.

In your comments on the draft decision you agree to perform the Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test (OECD TG 422) on the Substance to fulfil this information requirement.

4. Adsorption/ desorption screening

Adsorption/desorption screening is a a standard information requirement under Annex VIII to REACH (Section 9.3.1.).

You have adapted this information requirement by providing:

- An adaptation in accordance with Annex VIII, Section 9.3.1., Column 2;
- A key study containing data derived from Qualitative or quantitative structure-activity relationship (QSAR) in accordance with Annex XI, Section 1.3 for one of the Substance constituents.

We have assessed this information and identified the following issues:

A: Column 2 adaptation

Annex VIII, Section 9.3.1., column 2 states that the study does not need to be conducted if based on the physicochemical properties the substance can be expected to have a low potential for adsorption (e.g. the substance has a low octanol water partition coefficient, log Kow). However, as explained in ECHA Guidance R.7a, Section R.7.1.15.3., log Kow is not considered a valid descriptor of the adsorption potential for surface active substances and measured adsorption coefficients are needed for these types of substances.

You do not provide a measured adsorption coefficient for the Substance. Your registration dossier provides an adaptation stating that the study does not need to be conducted since the substance has a low potential for adsorption based on its physicochemical properties (low octanol-water partition coefficient).

The Substance is a surfactant (surface tension in water < 60 mN/m).

[9] ECHA Guidance R.7a, Section R.7.6.2.3.2.

Therefore, log Kow is not a valid descriptor of the adsorption potential of the Subtance and measured values are needed.

Therefore, the adaptation of the information requirement is rejected.

B: QSAR

Annex XI, Section 1.3. states that results obtained from valid QSAR models may be used instead of testing when the following cumulative conditions are met:

1. results are derived from a QSAR model whose scientific validity has been established;
2. the substance falls within the applicability domain of the QSAR model;
3. adequate and reliable documentation of the applied method is provided; and
4. the results are adequate for classification and labelling and/or risk assessment.

According to ECHA's Practical guide "How to use and report (Q)SARs", section 3.4, a QSAR Model Reporting Format (QMRF) and a QSAR Prediction Reporting Format (QPRF) are required to establish the scientific validity of the model, to verify that the Substance falls within the applicability domain of the model, and to assess the adequacy of the prediction for the purposes of classification and labelling.

Furthermore, to consider the prediction adequate for the purpose, among others, the input structures must cover all the relevant structures included in the substance identity information provided in the dossier.

You have provided a calculated value of log Koc of 0.903 based on EPISuite software for one of the the constituents of the UVCB Substance, i.e. disodium icosyl sulphosuccinate.

Your adaptation does not meet the general rule for adaptation of Annex XI, Section 1.3. because:

- You have not provided any documentation for the QSAR prediction. In particular, you have not included a QMRF and a QPRF in your technical dossier for the relevant endpoint. Therefore, ECHA cannot establish whether the model is scientifically valid, whether the Substance falls within the applicability domain of the model, and whether the results are adequate for classification and labelling and/or risk assessment;

- Only one consitutent was covered by the prediction. You have not covered all the relevant structures included in the composition of the Substance and hence the prediction is not adequate for the purpose of identifying the hazardous properties of the Substance for this endpoint.

Therefore, the adaptation of the information requirement is rejected.

In your comments to the draft decision you agree to perform the adsorption/desorption screening study on the Substance.

Appendix C: Reasons to request information required under Annex IX of REACH

1. Sub-chronic toxicity study (90-day)

A Sub-chronic toxicity study (90 day) is a standard information requirement in Annex IX to REACH.

ECHA understands that you have adapted this information requirement by using a Grouping of substances and read-across approach under Annex XI, Section 1.5.

You have provided the following key studies in your dossier:

i. Repeated Dose 90-Day Oral Toxicity in Rodents (OECD TG 408) , with source substance Aspartic acid, N-(3-carboxy-1-oxo-sulfopropyl)-N-(C16-C18 (even numbered), C18 unsaturated alkyl) tetrasodium salts, CAS number: 867040-07-1, ([redacted] 1976)
ii. Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test, (OECD TG 422), with source substance Butanedioic acid, 2 (or 3) - sulfo-, 4 - [2- [(1-oxo (C12 - C18 (even numbered) and C18 unsaturated) alkyl)) amino] ethyl] esters, disodium salts, ([redacted] 2013)

We have assessed this information and identified the following issues:

For the reason explained in the *Appendix on Reasons common to several requests*, section 1, your adaptation is rejected.

In addition, the following endpoint-specific deficiency has been identified in your read-across adaptation.

Adequacy and reliability of source study

According to Annex XI, Section 1.5., if the grouping concept is applied then in all cases the results to be read across must:

- have adequate and reliable coverage of the key parameters addressed in the corresponding test method referred to in Article 13(3).

OECD TG 408 is the preferred/corresponding guideline to fulfil this information requirement and the coverage of the following key parameters is required, among others

- dosing of the Substance daily for a period of 90 days until the scheduled termination of the study;
- organ weights and full histopathology should be carried out on the preserved organs and tissues of all animals in the control and high dose groups.

The provided study (ii) was not performed according to the criteria of the OECD TG 408. Specifically:

- study (ii) does not have the required exposure duration of 90-days
- the organ weight and histopathological investigations in study (ii) were conducted on selected 5 animals per sex in the control and high dose groups. This is less than the number of animals required to be investigated in the OECD TG 408.

In your registration dossier, you have provided also two further studies on source substances, which you indicated as "weight of evidence" but without further explanation of the justification of the type of information. However, due to the indication of the two above studies as "key studies" and use of the most conservative key study for the hazard identification ECHA

understood that you did not intend an adaptation based on Annex XI, Section 1.2. In any case, the above considerations, and the particular lack of documentation of your adaptation, apply equally to these study records.

In the comments on the draft decision you indicate your intention to adapt these information requirements by means of a new grouping and read-across approach according to Annex XI, Section 1.5, of the REACH Regulation.

You have provided a read-across justification document in the comments on the draft decision. You have also provided descriptions of the repeated dose, reproductive and developmental toxicity studies of the candidate source substances, together with an overview table. Your information source was the ECHA dissemination site.

In the comments, you present a strategy to fulfil this information requirement relying on the generation of additional supporting information on the Substance and on the analogue substance(s). You consider the possibilities to read-across between the Substance and the structurally similar substances:

- Butanedioic acid, 2-sulfo-,1(or 4)-isodecyl ester, sodium salt (EC 253-452-8),
- Butanedioic acid, sulfo-, 4-C12-14 (even numbered)- alkyl esters, disodium salts (EC 290-838-5, 939-638-8),
- Butanedioic acid, sulfo-, 1-C12-18-alkyl esters, disodium salts (EC 290-836-4) and
- Butanedioic acid, sulfo-,mono (C16-18 and C18- unsatd. alkyl) esters, ammonium sodium salts (EC 604-617-1) as source substances and the Substance as target substance.

You have indicated that some of the studies needed for the read-across evaluation are yet to be performed. Based on the information that will be obtained from these studies, and taking into account the results of the OECD 422 studies with the Substance and the considered source substances, you will decide on the final read-across proposal.

As indicated in your comments, this strategy relies essentially on data which is yet to be generated, no conclusion on the compliance can currently be made, as this is work in progress. Should you decide to pursue the strategy presented in your comments, ECHA will assess the compliance in the follow-up to the dossier evaluation.

Based on the above, the information you provided do not fulfil the information requirement.

Therefore the sub-chronic toxicity study must be performed according to the OECD TG 408, in rats and with oral administration of the Substance.

Information on the design of the study to be performed (route/ species/ strain)

Referring to the criteria provided in Annex IX, Section 8.6.2, Column 2, the oral route is the most appropriate route of administration to investigate repeated dose toxicity.

Therefore the sub-chronic toxicity study must be performed according to the OECD TG 408, in rats and with oral administration of the Substance.

2. Pre-natal developmental toxicity study in one species

A Pre-natal developmental toxicity (PNDT) study (OECD TG 414) in one species is a standard information requirement under Annex IX to REACH.

You have provided one key study study for this endpoint in your dossier:

i. Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test (OECD TG 422), with source substance Butanedioic acid, 2 (or 3) - sulfo-, 4 - [2- [(1-oxo (C12 - C18 (even numbered) and C18 unsaturated) alkyl)) amino] ethyl] esters, disodium salts ([redacted] 2013).

We have assessed this information and identified the following issues:

For the general reason explained in the *Appendix on Reasons common to several requests* your adaptation is rejected.

In addition, the following endpoint-specific deficiency has been identified in your read-across adaptation:

Adequacy and reliability of source study

According to Annex XI, Section 1.5., if the grouping concept is applied then in all cases the results to be read across must:

- have adequate and reliable coverage of the key parameters addressed in the corresponding test method referred to in Article 13(3).

In order to be considered compliant and enable assessing if the Substance is a developmental toxicant, information provided has to meet the requirements of OECD TG 414 in one species, e.g external, skeletal and visceral malformations and variations has to be investigated as described in OECD TG 414.

You have not provided information following OECD TG 414. Instead, you have provided a "combined repeated dose toxicity study with the reproduction/developmental toxicity screening test" (OECD TG 422).

This study does not inform on skeletal and visceral malformations and variations as required by OECD TG 414.

Therefore, this study does not fulfil the information requirement.

In the comments on the draft decision you indicate your intention to adapt these information requirements by means of a new grouping and read-across approach according to Annex XI, Section 1.5, of the REACH Regulation.

You have provided a read-across justification document in the comments on the draft decision. You have also provided descriptions of the repeated dose, reproductive and developmental toxicity studies of the candidate source substances, together with an overview table. Your information source was the ECHA dissemination site.

In the comments, you present a strategy to fulfil this information requirement relying on the generation of additional supporting information on the Substance and on the analogue substance(s). You consider the possibilities to read-across between the Substance and the structurally similar substances:

- Butanedioic acid, 2-sulfo-,1(or 4)-isodecyl ester, sodium salt (EC 253-452-8),
- Butanedioic acid, sulfo-, 4-C12-14 (even numbered)- alkyl esters, disodium salts (EC 290-838-5, 939-638-8),
- Butanedioic acid, sulfo-, 1-C12-18-alkyl esters, disodium salts (EC 290-836-4) and
- Butanedioic acid, sulfo-,mono (C16-18 and C18- unsatd. alkyl) esters, ammonium

sodium salts (EC 604-617-1) as source substances and the Substance as target substance.

You have indicated that some of the studies needed for the read-across evaluation are yet to be performed. Based on the information that will be obtained from these studies, and taking into account the results of the OECD 422 studies with the Substance and the considered source substances, you will decide on the final read-across proposal.

As indicated in your comments, this strategy relies essentially on data which is yet to be generated, no conclusion on the compliance can currently be made, as this is work in progress. Should you decide to pursue the strategy presented in your comments, ECHA will assess the compliance in the follow-up to the dossier evaluation.

Based on the above, the information you provided do not fulfil the information requirement.

Information on the design of the study to be performed

A PNDT study according to the test method OECD TG 414 must be performed in rat or rabbit as preferred species with oral[10] administration of the Substance.

3. Long-term toxicity testing on aquatic invertebrates

and

4. Long-term toxicity testing on fish

Long-term toxicity testing on aquatic invertebrates and long-term toxicity testing on fish are information requirements under Annex IX to REACH (Section 9.1.5. and Section 9.1.6.).

You have provided the following information: a justification to omit the study which you consider to be based on Annex IX, Section 9.1., Column 2. In support of your adaptation, you provided the following justification in the dossier: the chemical safety assessment indicates no need to further investigate effects on aquatic organisms.

In your comments to the draft decision you state further that: "*In a matter of fact, the PEC/PNEC found during the quantitative assessment for freshwater and marine water is <1. In other words, these tests are not triggered considering the available ecotoxicological information (acute ecotoxicity studies) and considering the chemical safety assessment*".

We have assessed this information and identified the following issues:

Annex IX, Section 9.1., Column 2 does not allow omitting the need to submit information on long-term toxicity to aquatic invertebrates and long-term toxicity to fish under Column 1. It must be understood as a trigger for providing further information on long-term toxicity to fish if the chemical safety assessment according to Annex I indicates the need (Decision of the Board of Appeal in case A-011-2018).

Furthermore, the PNEC values derived cannot be used as justification for waiving this endpoint since they are not reliable. As explained below due to the Substance properties acute toxicity studies cannot be used to conclude on long-term hazards of poorly soluble substances. Moreover, the growth inhibition study on aquatic plants is non-compliant (see request A.2).

[10] ECHA Guidance R.7a, Section R.7.6.2.3.2.

Your adaptation is therefore rejected. On this basis, the information requirement is not fulfilled.

In your comments to the draft decision, you suggest to follow a tiered approach by conducting a short-term toxicity study on fish followed by a long-term toxicity study on the most sensitive aquatic organism (i.e. aquatic invertebrates or fish) based on the short-term studies.

Poorly water soluble substances require longer time to reach steady-state conditions. As a result, the short-term tests does not give a true measure of toxicity for this type of substances and the long-term test is required. A substance is regarded as poorly water soluble if, for instance, it has a water solubility below 1 mg/L or below the detection limit of the analytical method of the test material (ECHA Guidance R.7.8.5).

In the provided EU method A.6 (Lange, 2013), the saturation concentration of the Substance in water was determined to be 0.375 mg/L.

Therefore, the Substance is poorly water soluble and short-term aquatic toxicity studies are not applicaple. Furthermore, as discussed above long-term toxicity on aquatic invertebrates and fish are standard information requirements and must be provided.
Therefore your proposed approach to test the most sensitive species is rejected.

Study design

To fulfil the Long-term toxicity testing on fish information requirement for the Substance, the Fish, Early-life Stage Toxicity Test (test method OECD TG 210) is the most appropriate (ECHA Guidance R.7.8.2.).

OECD TG 211 and OECD TG 210 specify that, for difficult to test substances, OECD GD 23 must be followed. As already explained above under Section A.2, the Substance is difficult to test. Therefore, you must fulfil the requirements described in the section on 'Study design' under Section A.2.

5. Simulation testing on ultimate degradation in surface water

Simulation testing on ultimate degradation in surface water is an information requirement under Annex IX to REACH (Section 9.2.1.2.).

You have provided the following information in your dossier: an adaptation under Annex IX, Section 9.2.1.2., Column 2 with the following justification: [...] *"the substance is biodegradable, and direct and indirect exposure is excluded"*.

We have assessed this information and identified the following issues:
Under Section 9.2.1.2., Column 2 of Annex IX to REACH, the study may be omitted if the substance is readily biodegradable.

Your registration dossier provides the following:

- The Substance is not readily biodegradable (42% degradation after 28 days in OECD TG 301B).

In your comments to the draft decision you agree that the Substance is not ready biodegradable, but you also claim that the reached level of degradation of 42% is close to the threshold of 60%. You consider that based on the nature of the components of the Substance,

a UVCB, and the behaviour of other structurally similar substances which you bring in in Annex III of your comments, the ready biodegradation result is surprising. You suggest to perform a new ready biodegradation test according to OECD TG 301 considering the recommendations given in its Annex III for poorly soluble substances.

The OECD TG 301B ready biodegradation study reported in your dossier is deemed valid and therefore ECHA considers that the Substance screens as P/vP. Consequently, simulation studies as requested in this draft decision are needed to conclude on the P potential of the Substance.

Regarding your claim that the degradation level of 42% as reported per OECD TG 301B is close to the threshold of 60%, ECHA notes that a degradation level slightly below 60 % can be used as an evidence of inherent, not ready, biodegradation[11]. In this case the degradation level of 42% cannot be considered as being slightly below 60% and furthermore, inherent biodegradability is not considered a valid waiver for the current endpoint.

In addition you claim in your dossier that the testing is not needed as direct and indirect exposure of the aquatic compartment is unlikely.

As the Substance is not ready biodegradable, and the absence of exposure of the aquatic compartment is not a basis for an adaptation under Annex IX, Section 9.2.1.2, column 2, the information requirement is not fulfilled.

In your comments to the draft decision you have provided an adaptation which ECHA understands is an adaptation under Annex IX Section 9.2.1.2., Column 2 with the following justification:

A. due to the poor water solubility of the Substance (0.325 mg/L) the test may be practically difficult or impossible to conduct at concentrations below the water solubility of the substance.

B. you claim that it is also likely that the surface water environment will not be the principal environment of concern considering the very poor solubility of the substance in water.

We have assessed this information and identified the following issue:

Under Section 9.2., Column 2 of Annex IX to REACH, the study may be omitted if the substance is highly insoluble in water. As explained in ECHA Guidance R.7b: "*In these circumstances, the test will be practically very difficult to conduct without special analytical techniques. In addition, it is likely that the aqueous environment may not be the principal environmental compartment of concern (see Section R.7.9.6).*"

The water solubility of the Substance is 0.375 mg/L and you consider that the test is technically not feasible.

ECHA notes that with the reported water solubility of 0.375 mg/L there is no evidence that the Substance is highly insoluble. As explained in OECD TG 309: "*The maximum concentration of the test substance should not exceed 100 µg/L, but maximum test concentrations below 10 µg/L or less are preferred to ensure that the biodegradation follows first order kinetics*". Therefore the OECD TG 309 test is feasible.

[11] https://echa.europa.eu/documents/10162/13632/information_requirements_r7b_en.pdf

As the Substance is not insoluble it is not justified to state that the surface water would not be a compartment of concern. Furthermore, as already discussed above, the absence of exposure of the aquatic compartment is not a basis for an adaptation under Annex IX, Section 9.2.1.2, Column 2.

Your comments on the Strategy for the PBT/vPvB assessment

ECHA has noted your considerations regarding the "Strategy for the PBT/vPvB assessment". However, as they are not related to the requested information requirements as per this draft decision, ECHA has not further addressed them.

Study design

Simulation degradation studies must include two types of investigations (ECHA Guidance R.7.9.4.1.):

1. a degradation pathway study where transformation/degradation products are quantified and, if relevant, are identified, and
2. a kinetic study where the degradation rate constants (and degradation half-lives) of the parent substance and of relevant transformation/degradation products are experimentally determined.

You must perform the test, by following the pelagic test option with natural surface water containing approximately 15 mg dw/L of suspended solids (acceptable concentration between 10 and 20 mg dw/L) (ECHA Guidance R.11.4.1.1.3.).

The required test temperature is 12°C, which corresponds to the average environmental temperature for the EU (ECHA Guidance R.16, Table R.16-8) and is in line with the applicable test conditions of the OECD TG 309.

As specified in ECHA Guidance R.7.9.4.1., the organic carbon (OC) concentration in surface water simulation tests is typically 2 to 3 orders of magnitude higher than the test substance concentration and the formation of non-extractable residues (NERs) may be significant in surface water tests. Therefore, non-extractable residues (NER) must be quantified. The reporting of results must include a scientific justification of the used extraction procedures and solvents. By default, total NER is regarded as non-degraded Substance. However, if reasonably justified and analytically demonstrated a certain part of NER may be differentiated and quantified as irreversibly bound or as degraded to biogenic NER, such fractions could be regarded as removed when calculating the degradation half-life(s) (ECHA Guidance R.11.4.1.1.3.). Further recommendations may be found in the background note on options to address non-extractable residues in regulatory persistence assessment available on the ECHA website.

Relevant transformation/degradation products are at least those detected at ≥ 10% of the applied dose at any sampling time or those that are continuously increasing during the study even if their concentrations do not exceed 10% of the applied dose, as this may indicate persistence (OECD TG 309; ECHA Guidance R.11.4.1.).

6. Soil simulation testing

and

7. Sediment simulation testing

Soil simulation testing and sediment simulation testing are information requirements under Annex IX to REACH (Section 9.2.1.3. and 9.2.1.4.) for substances with a high potential for adsorption to soil and sediment.

Although the information provided on adsorption/desorption is not acceptable as explained in section B.4 above, there are indications that the Substance can be considered as adsorptive.The Substance has a low water solubility (0.375 mg/L), is surface active (< 60 mN/m) and is ionisable and therefore has high potential for adsorption to soil.

You have provided the following information: an adaptation under Annex IX, Section 9.2.1.3. and 9.2.1.4, Column 2 with the following justification: [...] *"the substance is biodegradable, and direct and indirect exposure is excluded"* and *"based on common use conditions the soil is not an environmental compartment of concern by direct and indirect exposure"*.

We have assessed this information and identified the following issue[s]:

Under Sections 9.2.1.3. and 9.2.1.4., Column 2 of Annex IX to REACH, the study may be omitted if the substance is readily biodegradable or direct and indirect exposure of soil and sediment is unlikely.

Your registration dossier provides the following:

- The Substance is not readily biodegradable (42% degradation after 28 days in OECD TG 301B);
- Uses reported in your dossier and chemical safety assessmet: Use at industrial site in leather manufacturing process (ERC5) and in industrial treatment of textile (ERC5), formulation of preparation (ERC2) and service life (consumers) (ERC11a).

The Substance is not ready biodegradable and the uses provided in the dossier indicate releases to the environment and contradict your statement of unlikely direct and indirect exposure. In the CSR you report various industrial and consumer uses of the substance where direct and indirect exposure of the soil and sediment compartment is identified in the respective exposure scenarios (ESs) by the release factor to the soil and sediment and/or estimated predicted environmental concentration (PEC) in soil and sediment being not equal to zero.

Thus, this argument based on exposure considerations for omitting soil and sediment simulation studies is not acceptable.

In your comments to the draft decision you:

A. similarly to your response to request addressed under Section C.5, agree that the Substance is not ready biodegradable, but consider the result not reliable and suggest to perform a new ready biodegradation test considering the Annex III of OECD TG 301.

B. argue that the adaptation as per Column 2 of Annex IX Sections 9.2.1.3 and 9.2.1.4 already applies as direct and indirect exposure of soil and sediment is unlikely based on the registered uses.

We have assessed this information and identified the following issue:

A. For the assessment of the ready biodegradability claim, please refer to the Section

C.5.

B. Adaptation as per Annex IX Sections 9.2.1.3 and 9.2.1.4, Column 2

As explained in ECHA Guidance R.7b these studies can be waived based on direct and indirect exposure of the specific environmental compartment (Column 2 of Annex IX Sections 9.2.1.3 and 9.2.1.4), for soil in case *"there is no exposure of the soil, or the exposure is so low that no refinement of the PECs is required, then this test may not be necessary"* and for the sediment *"if there is no exposure of sediment, or the exposure is so low that no refinement of the PEC regional is required"*. However, for both compartments ECHA Guidance R.7b defines further that if a substance is considered a PBT/vPvB candidate, then it is necessary to consider the tests in the soil and/or sediment compartments if they/either are the environmental compartment(s) of concern based on e.g. the emissions estimated in the CSR and physico-chemical information (ECHA Guidance R.11). For substances with low water solubility, high adsorption potential and surface activity, soil and sediment compartments are considered to be compartments of concern.

In your comments to the draft decision, you report release factors to soil which are not equal to zero (0.01% for ERC2, 1% for ERC5 for soil).

As discussed above, in your CSR you report PECs for sediment that are not equal to zero and RCRs for sediment ranging from [redacted]

Based on the above there is exposure of both the soil and the sediment compartment. As, based on the current information, there are indications that the Substance is highly adsorptive (as explained under this section above), the soil and sediment compartments are compartments of concern. As there is also a PBT/vPvB concern (the Substance is potentially p/vP as it is not readily biodegradable, potentially B/vB as explained under Section C.9 and potentially T as currently no data is available to conclude on aquatic toxicity of the Substance), soil and sediment simulation tests are necessary.

If this information is to be omitted based on the exposure scenario(s) developed in the Chemical Safety Report, as explained under Annex XI, Section 3, then such justification must be based on a rigorous exposure assessment in accordance with Annex I, Section 5 and must meet the following criteria:

- For substances that are not included in articles, it must be demonstrated for all relevant scenarios that strictly controlled conditions as set out in Article 18(4)(a) to (f) apply throughout the life cycle.

In all cases, adequate justification and documentation must be provided when testing is omitted.

The justification based on Annex XI section 3.2 (b) must include a qualitative assessment including three elements: the description of operational conditions and risk management measures in all related exposure scenarios; the quantification of the resulting release/exposure for all routes; and a qualitative statement why the release is low enough (ECHA Guidance R.5.1.3)

In your comments to the draft decision and the registration dossier you report different industrial uses for the Substance as surface active agent in leather treatment products, textile dyes and impregnating products as well as article service-life (consumers – handling of leather articles).

In your comments you state that "[...] *the substance is never released to surface water without a dedicated industrial pre-treatment*" and "*the risk management measures commonly in place prevent the substance to be released into the environment*", but you do not provide justification including description of operational conditions and risk management measures.

Therefore, you have not documented that strictly controlled conditions throughout the life-cycle including waste stage of the Substance apply.

On this basis, the information requirement is not fulfilled.

Conditional nature of the requirements

The requests for soil and sediment simulation testing (requests C.6 and C.7) are dependent on the result of request B.4. In that respect, as explained under request B.4, your dossier currently does not include a reliable value on the adsorption coefficient of the Substance. However, as explained above, based on the information currently contained in the dossier, the Substance may be highly adsorptive.

In case the Substance or any of its consituents prove to be
highly adsorptive (*i.e.* Log Koc > 4) then soil and sediment simulation testing are required.

Therefore, soil and sediment simulation testing must only be conducted if the data generated under request B.4 demonstrate that the Substance and/or its constituents are adsorptive (*i.e.* Log Koc > 4). The deadline set by this decision allows for the sequential testing, where necessary.

Study design for requests C.6 and C.7

Simulation degradation studies must include two types of investigations (ECHA Guidance R.7.9.4.1.):

1) a degradation pathway study where transformation/degradation products are quantified and, if relevant, are identified, and
2) a kinetic study where the degradation rate constants (and degradation half-lives) of the parent substance and of relevant transformation/degradation products are experimentally determined.

In accordance with the specifications of OECD TG 307, you must perform the soil simulation test using at least four soils representing a range of relevant soils (*i.e.* varying in their organic content, pH, clay content and microbial biomass).

In accordance with the specifications of OECD TG 308, you must perform the sediment simulation test using two sediments. One sediment should have a high organic carbon content (2.5-7.5%) and a fine texture, the other sediment should have a low organic carbon content (0.5-2.5%) and a coarse texture. If the Substance may also reach marine waters, at least one of the water-sediment systems should be of marine origin.

The required test temperature is 12°C, which corresponds to the average environmental temperature for the EU (ECHA Guidance R.16, Table R.16-8) and is in line with the applicable test conditions of the OECD TG 307 and OECD TG 308.

In accordance with the specifications of OECD TG 307 and OECD TG 308, non-extractable residues (NER) must be quantified. The reporting of results must include a scientific justification of the used extraction procedures and solvents (ECHA Guidance R.7.9.4.1.). By

default, total NER is regarded as non-degraded Substance. However, if reasonably justified and analytically demonstrated a certain part of NER may be differentiated and quantified as irreversibly bound or as degraded to biogenic NER, such fractions could be regarded as removed when calculating the degradation half-life(s) (ECHA Guidance R.11.4.1.1.3.). Further recommendations may be found in the background note on options to address non-extractable residues in regulatory persistence assessment available on the ECHA website.

Relevant transformation/degradation products are at least those detected at ≥ 10% of the applied dose at any sampling time or those that are continuously increasing during the study even if their concentrations do not exceed 10% of the applied dose, as this may indicate persistence (OECD TG 307 and OECD TG 308; ECHA Guidance R.11.4.1.).

8. Identification of degradation products

Identification of degradation products is an information requirement under Annex IX to REACH (Section 9.2.3.).

Both in your registration dossier and in your comments to the draft decision, you have provided no information on the identity of transformation/degradation products for the Substance. Therefore, this information requirement is not met.

This information is required for the purpose of the PBT/vPvB assessment (Annex I, Section 4) and the risk assessment (Annex I, Section 6) of the Substance.

Study design

Regarding the selection of appropriate and suitable test method(s), the method(s) will have to be substance-specific. Identity, stability, behaviour, and molar quantity of the degradation/transformation products relative to the Substance must be evaluated and reported, when analytically possible. In addition, degradation half-life, log K_{ow} and potential toxicity of the transformation/degradation may need to be investigated. You may obtain this information from the degradation studies requested in Sections C.5, C.6 and C.7 or by some other measure. If any other method is used for the identification of the transformation/degradation products, you must provide a scientifically valid justification for the chosen method.

9. Bioaccumulation in aquatic species

Bioaccumulation in aquatic species is a standard information requirement under Annex IX to REACH (Section 9.3.2.).

You have provided the following information: an adaptation under Annex IX, Section 9.3.2., Column 2 stating that the Substance has low potential for bioaccumulation based on its physico-chemical properties (octanol-water partition coefficient log < 3) and a direct and indirect exposure of the aquatic compartment is unlikely due to the insolubility of the substance.

We have assessed this information and identified the following issues:

Under Section 9.3.2., Column 2, first indent of Annex IX to REACH, the study may be omitted if the substance has a low potential for bioaccumulation and/or a low potential to cross biological membranes. A low log Kow (*i.e.* log Kow < 3) may be used to support low potential for bioaccumulation if the partitioning of to lipids is the sole mechanism driving the

bioaccumulation potential of a substance. For some groups of substances (e.g. organometals, ionisable substances, surfactants) other partitioning mechanisms may drive bioaccumulation (e.g. binding to protein/cell membranes). For this reason log Kow is not considered a valid descriptor of the bioaccumulation potential for such substances (ECHA Guidance R.7c, Appendix R.7.10-3).

Your registration dossier provides an adaptation stating that the log Kow is < 3.

The Substance is a surfactant (surface tension in water < 60 mN/m) and is ionisable. Hence binding to protein/cell membranes cannot be excluded.

Therefore, log Kow is not a valid descriptor of the bioaccumulation potential of the Subtance and your adaptation is rejected.

Under Section 9.3.2., Column 2, second indent of Annex IX to REACH, the study may be omitted if direct and indirect exposure of the aquatic compartment is unlikely. Therefore, it must be demonstrated that there is no release to the environment at any stage in the life cycle of the substance (ECHA Guidance R.7.10.4.5).

To support your adaptation, your registration dossier provides a waiver claiming that direct and indirect exposure of the aquatic compartment is unlikely.

In your chemical safety assessment, you report the following uses: Use at industrial site in leather manufacturing process (ERC5) and in industrial treatment of textile (ERC5), formulation of preparation (ERC2) and service life (consumers) (ERC11a).

The uses provided in the dossier indicates releases to the environment and contradict your statement of unlikely direct and indirect exposure. In the CSR you report various industrial and consumer uses of the substance where direct and indirect exposure of the aquatic compartment is identified in the respective exposure scenarios (ESs) by the release factor to the water and/or estimated predicted environmental concentration (PEC) in freshwater and marine water being not equal to zero.

Therefore, your consideration that exposure of aquatic compartment, i.e. in your words "*it is unlikely a direct or an indirect exposure of the aquatic compartment due to the insolubility of the substance*" is not supported by the evidence provided in the dossier, including the CSR. Thus, this argument based on exposure considerations for omitting bioaccumulation in aquatic species is not acceptable.

In your comments to the draft decision, you:

A. argue that the Substance is not bioavailable. You try to justify this by stating that the Substance is poorly water soluble and only small amout of the substance is released to water (exposure ranges from $1.547.10^{-5}$ mg/L to $7.647.10^{-4}$ mg/L for marine water and $1.625.10^{-4}$ to 0.008 mg/L for fresh water) its probability of being present and available in water for uptake by the aquatic organisms (e.g. fish) is very low. Also you claim that the Substance is inherently biodegradable as per OECD TG 301B study. Finally you conclude that even if the Substance is available for the fish, ionized substances do not readily diffuse across biological membranes and that the long carbon chain and the relatively high molecular weight could be considered too large to cross biological membrane.

B. argue that the Substance cannot be considered as PBT/vPvB even if it results as

bioaccumulative because it does not meet the P criterion based on Substance being inherently biodegradable. Moreover, you claim the Substance is not T considering the data available so far.

C. indicate that instead of a fish bioaccumulation study you may pursue an *in vitro* study to assess the bio-concentration potential of the substance.

We have assessed this information and identified the following issue:

A. Water solubility, exposure, bioavailability

Under Section 9.3.2., Column 2, first indent, Annex IX to REACH, the study may be omitted for instance if the Substance is unlikely to cross biological membranes. ECHA Guidance R.7.8.5. explains that there is no scientific basis to define molecular characteristics that would render a substance unlikely to cross biological membranes. In this context, the indicators used for low likelihood of a high bioaccumulation potential (ECHA Guidance R.11, Figure R.11-4) must be considered, including:

- physico-chemical indicators of hindered uptake due to large molecular size (*e.g.* D_{max} > 17.4 Å and MW > 1100 or MML > 4.3 nm) or high octanol-water partition coefficient (log K_{ow} > 10) or low potential for mass storage (octanol solubility (mg/L) < 0.002 x MW), and
- supporting experimental evidence of hindered uptake (no chronic toxicity for mammals and birds, no chronic ecotoxicity, no uptake in mammalian toxicokinetic studies, very low uptake after chronic exposure).

Your registration dossier provides:

- physico-chemical indicators which you consider supportive of hindered uptake (relatively high moleculer weight of the Substance);
- you have not provided any studies on the Substance such as, toxicokinetic studies, acute toxicity studies in rodents, a repeated-dose toxicity in rodents, a long-term toxicity study in aquatic invertebrates/fish, or any other type of studies that support hindered uptake.

Available information on the Substance do not support that the Substance is unlikely to cross biological membranes because the maximum molecular weight of the largest constituent of the Substance is < 1100 g/mol ([redacted]), and therefore it does not indicate hindered uptake due to molecular size. Furthermore, you failed to provide any supporting experimental evidence of the hindered uptake, as explained above.

Therefore your adaptation is rejected.

Regarding your low exposure claims, as already explained under Sections C.6 and C.7, you have not demonstrated that strictly controlled conditions throughout the life-cycle including waste stage of the Substance apply. As also already explained under Sections C.5, C.6 and C.7, the substance is not readily biodegradable and its water solubility is such that claim of no environment exposure and substance not being available for uptake is not correct.

Although ionised substances do not readily diffuse across biological membranes, other processes (e.g. complex permeation, carrier-mediated processes, ion channels, or ATPases) may play a role in uptake. Therefore, a potential to cross biological membranes still exists and cannot be refuted by your claim.

B. PBT assessment considerations

In your comments to the draft decision you argue that the Substance might not be readily biodegradable but is inherently biodegradable and therefore the P criterion is not met.

As the Substance is not readily biodegradable (42% according to OECD TG 301B) and the ready biodegradation tests cannot be used to conclude on the inherent biodegradability unless the pass level criterion is almost fulfilled, i.e. ThOD slightly below 60%, you have not demonstrated that the Substance in not potentially P/vP.

Also, ECHA notes that as explained under Sections A.2, C.3 and C. 4 there currently is no data available to conclude on the aquatic toxicity on the Substance.

C. *In vitro* methods

ECHA understands that if a bioaccumulation study is needed you consider conducting an *in vitro* study for animal welfare reasons. In such a case, a Weight-of-Evidence (WoE) approach with scientific judgement is needed to conclude on the bioaccumulation properties of the Substance.

ECHA Guidance R.11 foresees the possibility to use a Weight-of-Evidence (WoE) approach to conclude on the B/vB properties. An essential prerequisite for applying such approach is that the reliability and suitability of any experimental studies and the non-experimental data used in the WoE are evaluated according to ECHA Guidance R.4, ECHA Guidance R.7b and ECHA Guidance R.7c. This evaluation must be well documented in the CSR and submitted as part of the technical dossier. A scientifically valid justification must be provided.

Therefore your adaptation is rejected.

Study design

Bioaccumulation in fish: aqueous and dietary exposure (Method EU C.13 / OECD TG 305) is the preferred test to investigate bioaccumulation (ECHA Guidance R.7.10.3.1.). Exposure via the aqueous route (OECD TG 305-I) must be conducted unless it can be demonstrated that:

- a stable and fully dissolved concentration of the test substance in water cannot be maintained within ± 20% of the mean measured value, and/or
- the highest achievable concentration is less than an order of magnitude above the limit of quantification (LoQ) of a sensitive analytical method.

This test set-up is preferred as it allows for a direct comparison with the B and vB criteria of Annex XIII of REACH.

You may only conduct the study using the dietary exposure route (OECD 305-III) if you justify and document that testing through aquatic exposure is not technically possible as indicated above. You must then estimate the corresponding BCF value from the dietary test data according to Annex 8 of the OECD 305 TG and OECD Guidance Document on Aspects of OECD TG 305 on Fish Bioaccumulation (ENV/JM/MONO(2017)16).

Under Annex XIII, you must assess the PBT/vPvB properties of the relevant constituents of the Substance. Therefore, the bioaccumulation of each relevant constituent present in concentrations at or above 0.1% (w/w) or, if not technically feasible, in concentrations as low as technically detectable must be assessed. Alternatively, you would have to justify why you consider these not relevant for the PBT/vPvB assessment.

Appendix D: Requirements to fulfil when conducting and reporting new tests for REACH purposes

A. Test methods, GLP requirements and reporting

- Under Article 13(3) of REACH, all new data generated as a result of this decision must be conducted according to the test methods laid down in a European Commission Regulation or to international test methods recognised by the Commission or ECHA as being appropriate.
- Under Article 13(4) of REACH, ecotoxicological and toxicological tests and analyses must be carried out according to the GLP principles (Directive 2004/10/EC) or other international standards recognised by the Commission or ECHA.
- Under Article 10(a)(vi) and (vii) of REACH, all new data generated as a result of this decision must be reported as study summaries, or as robust study summaries, if required under Annex I of REACH. See ECHA Practical Guide on How to report robust study summaries[12].

B. Test material

Before generating new data, you must agree within the joint submission on the chemical composition of the material to be tested (Test Material) which must be relevant for all the registrants of the Substance.

1. *Selection of the Test material(s)*

   The Test Material used to generate the new data must be selected taking into account the following:
   - the variation in compositions reported by all members of the joint submission,
   - the boundary composition(s) of the Substance,
   - the impact of each constituent/ impurity on the test results for the endpoint to be assessed. For example, if a constituent/ impurity of the Substance is known to have an impact on (eco)toxicity, the selected Test Material must contain that constituent/ impurity.

2. *Information on the Test Material needed in the updated dossier*

   - You must report the composition of the Test Material selected for each study, under the "Test material information" section, for each respective endpoint study record in IUCLID.
   - The reported composition must include the careful identification and description of the characteristics of the Tests Materials in accordance with OECD GLP (ENV/MC/CHEM(98)16) and EU Test Methods Regulation (EU) 440/2008 (Note, Annex), namely all the constituents must be identified as far as possible as well as their concentration. Also any constituents that have harmonised classification and labelling according to the CLP Regulation must be identified and quantified using the appropriate analytical methods,

With that detailed information, ECHA can confirm whether the Test Material is relevant for the Substance and whether it is suitable for use by all members of the joint submission.

Technical instructions on how to report the above is available in the manual on How to prepare registration and PPORD dossiers[13].

[12] https://echa.europa.eu/practical-guides
[13] https://echa.europa.eu/manuals

Appendix E: General recommendations when conducting and reporting new tests for REACH purposes

A. Strategy for the PBT/vPvB assessment

Under Annex XIII, the information must be based on data obtained under conditions relevant for the PBT/vPvB assessment. You must assess the PBT properties of each relevant constituent of the Substance present in concentrations at or above 0.1% (w/w) and of all relevant transformation/degradation products. Alternatively, you would have to justify why you consider these not relevant for the PBT/vPvB assessment.

You are advised to consult ECHA Guidance R.7b (Section R.7.9.), R.7c (Section R.7.10) and R.11 on PBT assessment to determine the sequence of the tests needed to reach the conclusion on PBT/vPvB. The guidance provides advice on 1) integrated testing strategies (ITS) for the P, B and T assessments and 2) the interpretation of results in concluding whether the Substance fulfils the PBT/vPvB criteria of Annex XIII.

In particular, you are advised to first conclude whether the Substance fulfils the Annex XIII criteria for P and vP, and then continue with the assessment for bioaccumulation. When determining the sequence of simulation degradation testing you are advised to consider the intrinsic properties of the Substance, its identified uses and release patterns as these could significantly influence the environmental fate of the Substance. You must revise your PBT assessment when the new information is available.

B. Environmental testing for substances containing multiple constituents

Your Substance contains multiple constituents and, as indicated in ECHA Guidance R.11 (Section R.11.4.2.2), you are advised to consider the following approaches for persistency, bioaccumulation and aquatic toxicity testing:

- the "known constituents approach" (by assessing specific constituents), or
- the "fraction/block approach, (performed on the basis of fractions/blocks of constituents), or
- the "whole substance approach", or
- various combinations of the approaches described above

Selection of the appropriate approach must take into account the possibility to characterise the Substance (i.e. knowledge of its constituents and/or fractions and any differences in their properties) and the possibility to isolate or synthesize its relevant constituents and/or fractions.

Appendix F: Procedure

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

ECHA followed the procedure detailed in Articles 50 and 51 of REACH.

The compliance check was initiated on 08 April 2020.

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 did not amend the request(s).

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

As no amendments were proposed, ECHA adopted the decision under Article 51(3) of REACH.

Appendix G: List of references - ECHA Guidance[14] and other supporting documents

Evaluation of available information
Guidance on information requirements and chemical safety assessment, Chapter R.4 (version 1.1., December 2011), referred to as ECHA Guidance R.4 where relevant.

QSARs, read-across and grouping
Guidance on information requirements and chemical safety assessment, Chapter R.6 (version 1.0, May 2008), referred to as ECHA Guidance R.6 where relevant.

Read-across assessment framework (RAAF, March 2017)[15]

RAAF - considerations on multiconstituent substances and UVCBs (RAAF UVCB, March 2017)[15]

Physical-chemical properties
Guidance on information requirements and chemical safety assessment, Chapter R.7a (version 6.0, July 2017), referred to as ECHA Guidance R.7a in this decision.

Toxicology
Guidance on information requirements and chemical safety assessment, Chapter R.7a (version 6.0, July 2017), referred to as ECHA Guidance R.7a in this decision.

Guidance on information requirements and chemical safety assessment, Chapter R.7c (version 3.0, June 2017), referred to as ECHA Guidance R.7c in this decision.

Environmental toxicology and fate
Guidance on information requirements and chemical safety assessment, Chapter R.7a (version 6.0, July 2017), referred to as ECHA Guidance R.7a in this decision.

Guidance on information requirements and chemical safety assessment, Chapter R.7b (version 4.0, June 2017), referred to as ECHA Guidance R.7b in this decision.

Guidance on information requirements and chemical safety assessment, Chapter R.7c (version 3.0, June 2017), referred to as ECHA Guidance R.7c in this decision.

PBT assessment
Guidance on information requirements and chemical safety assessment, Chapter R.11 (version 3.0, June 2017), referred to as ECHA Guidance R.11 in this decision.

Guidance on information requirements and chemical safety assessment, Chapter R.16 (version 3.0, February 2016), referred to as ECHA Guidance R.16 in this decision.

Data sharing
Guidance on data-sharing (version 3.1, January 2017), referred to as ECHA Guidance on data sharing in this decision.

[14] https://echa.europa.eu/guidance-documents/guidance-on-information-requirements-and-chemical-safety-assessment
[15] https://echa.europa.eu/support/registration/how-to-avoid-unnecessary-testing-on-animals/grouping-of-substances-and-read-across

OECD Guidance documents[16]
Guidance Document on aqueous-phase aquatic toxicity testing of difficult test chemicals – No 23, referred to as OECD GD 23.

Guidance document on transformation/dissolution of metals and metal compounds in aqueous media – No 29, referred to as OECD GD 29.

Guidance Document on Standardised Test Guidelines for Evaluating Chemicals for Endocrine Disruption – No 150, referred to as OECD GD 150.

Guidance Document supporting OECD test guideline 443 on the extended one-generation reproductive toxicity test – No 151, referred to as OECD GD 151.

[16] http://www.oecd.org/chemicalsafety/testing/series-testing-assessment-publications-number.htm

Appendix H: Addressees of this decision and the corresponding information requirements applicable to them

You must provide the information requested in this decision for all REACH Annexes applicable to you.

Registrant Name	Registration number	Highest REACH Annex applicable to you
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

Where applicable, the name of a third party representative (TPR) may be displayed in the list of recipients whereas ECHA will send the decision to the actual registrant.