

Helsinki, 25 March 2022

**Addressees**

Registrants of JS - 2-Butyloctan-1-ol as listed in the last Appendix of this decision

**Date of submission of the dossier subject to this decision**

22/09/2017

**Registered substance subject to this decision ("the Substance")**

Substance name: 2-butyloctan-1-ol

EC number: 223-470-0

**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 in C.1 below by **30 June 2023** and all other information listed below, by the deadline of **1 April 2025**.

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. Long-term toxicity testing on aquatic invertebrates also requested below (triggered by Annex VII, Section 9.1.1., column 2).

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

1. Long-term toxicity testing on fish also requested below (triggered by Annex VIII, Section 9.1.3., column 2).

**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).

**D. Information required from all the Registrants subject to Annex X of REACH**

1. Pre-natal developmental toxicity study (Annex X, Section 8.7.2.; test method: OECD TG 414) by oral route, in a second species (rat/rabbit).

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

- Appendix entitled "Reasons common to several requests";
- Appendices entitled "Reasons to request information required under Annexes VII to X 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 Annex VII to REACH, for registration at 1-10 tonnes per year (tpa), or as a transported isolated intermediate in quantity above 1000 tpa;
- the information specified in Annexes VII to X to REACH, for registration at more than 1000 tpa.

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

For certain endpoints, ECHA requests the same study from registrants at different tonnages. In such cases, only the reasoning why the information is required at lower tonnages is provided in the corresponding Appendices. For the tonnage where the study is a standard information requirement, the full reasoning for the request including study design is given. Only one study is to be conducted; the registrants concerned must make every effort to reach an agreement as to who is to carry out the study on behalf of the other registrants under Article 53 of REACH.

### **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". For references used in this decision, please consult the Appendix entitled "List of references".

### **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<sup>1</sup> under the authority of Mike Rasenberg, Director of Hazard Assessment

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<sup>1</sup> 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 the Grouping of substances and read-across approach under Annex XI, Section 1.5.

You seek to adapt the information requirements for the following standard information requirements by grouping substances in the category and applying a read-across approach in accordance with Annex XI, Section 1.5:

- 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 in a second species (Annex X, Section 8.7.2.).

ECHA has considered the scientific and regulatory validity of your grouping and read-across approach 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 (addressed under 'Scope of the grouping'). 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 R.6. and related documents<sup>2,3</sup>.

#### A. Scope of the grouping

##### i. Description of the grouping

In your registration dossier you have formed a group (category) of 'Guerbet alcohols'. You have provided a read-across justification document [REDACTED] in IUCLID Section 13.2.

You provide the following reasoning for the grouping the substances: "*Guerbet Alcohols are structurally similar. They are primary aliphatic alcohols with a single branching at the C2 position, where the branches differ only in chain length (a difference of two C atoms in 'true' Guerbet alcohols); they have no other functional groups. Guerbet alcohols differ from one another only in carbon chain length*". You also state that "*Physico-chemical properties vary with carbon chain length but general patterns can be seen*" and "*all Guerbet Alcohols have low solubility in water*".

You define the applicability domain of the category as follows: branched primary alcohols which "*are synthesised by the Guerbet reaction and usually range from C12-32 carbon chain lengths.*"

ECHA understands that this is the applicability domain of the grouping and your predictions are assessed on this basis.

<sup>2</sup> Read-Across Assessment Framework (RAAF). 2017 (March) ECHA, Helsinki. 60 pp. Available online: [Read-Across Assessment Framework \(https://echa.europa.eu/support/registration/how-to-avoid-unnecessary-testing-on-animals/grouping-of-substances-and-read-across\)](https://echa.europa.eu/support/registration/how-to-avoid-unnecessary-testing-on-animals/grouping-of-substances-and-read-across)

<sup>3</sup> Read-across assessment framework (RAAF) - considerations on multi-constituent substances and UVCBs. 2017 (March) ECHA, Helsinki. 40 pp. Available online: <https://doi.org/10.2823/794394>

## B. Predictions for toxicological properties

You have provided the following reasoning for the prediction of toxicological properties: *“data were read-across within the Guerbet Alcohols category due to the structural similarity of these substances”*.

ECHA understands that you 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.

You intend to predict the properties for the category members from information obtained from the source substance 2-octylododecan-1-ol (EC No. 226-242-9, CAS No. 5333-42-6).

ECHA notes the following shortcoming with regards to predictions of toxicological properties:

- *Supporting information to compare properties of the category members*

Annex XI, Section 1.5 of the REACH Regulation states that “physicochemical properties, human health effects and environmental effects or environmental fate may be predicted from data for reference substance(s)”. For this purpose “it is important to provide supporting information to strengthen the rationale for the read-across” (Guidance on IRs and CSA, Section R.6.2.2.1.f.). The set of supporting information should allow to verify the crucial aspects of the read-across hypothesis and establish that the properties of the Substance can be predicted from the data on other category members.

As indicated above, your read-across hypothesis is based on the assumption that the structurally similar category members cause the same type of effects for sub-chronic/systemic target-organ toxicity and pre-natal developmental toxicity. In this context, relevant, reliable and adequate information allowing to compare the properties of the category members is necessary to confirm that the substances cause the same type of effects. Such information can be obtained, for example, from bridging studies of comparable design and duration for the category members.

In particular it needs to be established that the source substance and the Substance cause the same type of effects despite the structural differences identified i.e. the Substance and the source substance vary in the length of their carbon backbone and in the length of their branching.

However, your dossier does neither include supporting studies informing on the sub-chronic and pre-natal developmental properties of the Substance, nor on the source substance.

As supporting information, you provide a sub-chronic toxicity study (90-day) and a pre-natal developmental toxicity study with docosan-1-ol (EC No. 211-546-6, CAS No. 661-19-8), a linear long chain alcohol with a chain length of C22.

You provide the following reasoning for using this linear alcohol in your justification document: *“structural similarity (i.e. all substances under consideration being part of a homologous group) and similar properties between SIDS Long Chain Alcohols and Guerbet Alcohols categories support consideration of these substances as structural analogues for the purpose of read-across”* and allows that data from the *“SIDS Long Chain Alcohols category (C6-22) can be used in a read-across approach for the whole Guerbet Alcohol category”*.

ECHA notes the following regarding the structural variations between the Substance and the source substance:

Firstly, your read-across justification or the registration dossier does not include information of comparable design and duration for the Substance and source substance that allow to compare the properties under consideration between the Substance and the source substance, and to establish that the carbon chain length and length of branching does not impact the prediction for the toxicological properties under consideration.

Secondly, the additional supporting information from the long chain alcohol may provide information on the contribution of the linear backbone of comparable length with the source substance to the toxicological properties of these substances. However, the length of the carbon backbone of the Substance (C12) is significantly shorter than that of the source substance (C20) and of the C22 long chain alcohol. While you consider that the long chain alcohols with a carbon chain length ranging from C6 to C22 are structurally similar to the members of the Guerbet category, you have not explained how and why you consider that the information from the C22 long chain alcohol can support the prediction despite their structural differences.

Thirdly, furthermore, the information on the linear C22 long chain alcohol does not inform on the impact of the branching.

Therefore the data set reported in the technical dossier does not include relevant, reliable and adequate information for the category members or for the linear long chain alcohol to support your read-across hypothesis and to explain why the structural differences between the source substance and the Substance, i.e. variations in the length of the carbon backbone and in the length of the branching, do not influence toxicokinetics and toxicodynamics of the substances.

In the absence of such information, you have not established that the category members are likely to have similar properties of sub-chronic/ systemic target-organ toxicity and pre-natal developmental toxicity despite their structural differences. Therefore you have not provided sufficient supporting information to strengthen the rationale for the read-across.

### **C. Information provided in your comments on the draft decision**

In the comments to the draft decision you *"recognize and accept the rejection of the adaptation of the information requirements"* by ECHA. Rather than conducting the tests required in the decision, you consider that *"there should be an integrated testing strategy employed for the entire category to minimize vertebrate tests for animal welfare reasons and to avoid unnecessary animal tests with no additional value"*.

You present a strategy relying on the generation of additional supporting information on some category members. More specifically you intend to first conduct combined repeated dose toxicity studies with the reproduction/developmental toxicity screening tests (OECD TG 422) as bridging studies on the substances 2-butyloctan-1-ol (C12; CAS 3913-02-8), 2-octyldodecan-1-ol, (C20; CAS 5333-42-6) and 2-decyltetradecanol (C24; CAS 58670-89-6). You would subsequently decide, based on the results of these bridging studies, on whether the read-across approach is supported or whether further testing of category members is needed.

ECHA acknowledges your intentions to generate bridging information on some category members and your plans to refine your read-across approach. As indicated in your comments, this strategy relies essentially on data which is yet to be generated, therefore no conclusion on the compliance can currently be made.

Please note that this decision does not consider updates of the registration dossiers after the date on which you were notified of the draft decision according to Article 50(1) of REACH (see section 5.4. of ECHA's Practical Guide "How to act in Dossier Evaluation").

You remain responsible for complying with this decision by the set deadline.

#### **D. Conclusions on the grouping of substances and read-across approach**

As explained above, you have not established, neither in your dossier nor in your comments on the draft decision, 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. Long-term toxicity testing on aquatic invertebrates

Short-term toxicity testing on aquatic invertebrates is an information requirement under Annex VII to REACH (Section 9.1.1.). Long-term toxicity testing on aquatic invertebrates must be considered (Section 9.1.1., Column 2) if the substance is poorly water soluble.

You have provided four short-term toxicity studies on aquatic invertebrates, with test duration of 48 hours ([REDACTED] 2010, [REDACTED] 1999, [REDACTED] 2002, [REDACTED] 1997). The dossier contains an adaptation to the information requirement on long-term toxicity on aquatic invertebrates under Annex XI Section 1.5 (Grouping and read-across approach).

- *Triggering of the information requirement*

Poorly water soluble substances require longer time to reach steady-state conditions. As a result, the short-term tests do 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 ASTM E 1148 ([REDACTED] 2009), the saturation concentration of the Substance in water was determined to be below the limit of detection of the analytical method (*i.e.* <1 mg/L).

Therefore, the Substance is poorly water soluble and information on long-term toxicity on aquatic invertebrates must be provided.

- *Assessment of the information provided*

We have assessed the study submitted in the dossier on long-term toxicity on aquatic invertebrates adapted under Annex XI Section 1.5. For the reasons explained under Appendix C.3, the information submitted is not considered compliant.

The selection of the requested test on long-term toxicity on aquatic invertebrates, the test design and your comments to the draft decision are addressed under Appendix C.3.

**Appendix B: Reasons to request information required under Annex VIII of REACH****1. Long-term toxicity testing on fish**

Short-term toxicity testing on fish is an information requirement under Annex VIII to REACH (Section 9.1.3.). Long-term toxicity testing on fish must be considered (Section 9.1.3., Column 2) if the substance is poorly water soluble.

You have provided five short-term toxicity studies on fish, with test duration of 48 or 96 hours ([REDACTED] 1986; [REDACTED] 1986 [REDACTED] 1997, [REDACTED] 2012, Veith *et al.* 1983) and an adaptation to the information requirement on long-term toxicity on fish using column 2 of Annex IX section 9.1.

- *Triggering of the information requirement*

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).

As already explained under Section A.1, the Substance is poorly water soluble and information on long-term toxicity on fish must be provided.

- *Assessment of the information provided*

We have assessed the adaptation submitted in the dossier on long-term toxicity on fish using column 2 of Annex IX section 9.1. For the reasons explained under Appendix C.4, the adaptation submitted is not considered compliant.

The selection of the requested test on long-term toxicity on fish, the test design and your comments on the draft decision are addressed under section C.4.



## 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.

You have provided the following information with source substances:

- i. a study similar to OECD TG 408 (key study, [REDACTED] 1973) with the source substance 2-Octyldodecan-1-ol, EC No. 226-242-9, CAS No. 5333-42-6
- ii. a study similar to OECD TG 408 (supporting study, [REDACTED] 2002 [1]) with the source substance docosan-1-ol, EC No. 211-546-6, CAS No. 661-19-8.

We have assessed this information and identified the following issue:

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

However, as explained in the Appendix on on Reasons common to several requests your adaptation is rejected.

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

Your comments on the draft decision are addressed in section C of the Appendix on Reasons common to several requests above.

#### *Information on the design of the study to be performed*

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 the following information with source substances:

- i. a study according to OECD TG 414 in rat (key study, [REDACTED] 1994) with the source substance 2-Octyldodecan-1-ol, EC 226-242-9
- ii. a fertility and reproduction study in rats (supporting study, Iglesias et al 2002 [2]) with the source substance docosan-1-ol, EC 211-546-6.

ECHA understands that the study ii. in the dossier refers to a study carried out according to the "ICH Harmonised Tripartite Guideline S5(R2) Detection of toxicity to reproduction for medicinal products and toxicity to male fertility".

We have assessed this information and identified the following issue:

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

However, as explained in the Appendix on on Reasons common to several requests your adaptation is rejected.

Your comments on the draft decision are addressed in section C of the Appendix on Reasons common to several requests above.

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

A PNNT study according to the test method OECD TG 414 must be performed in rat or rabbit as preferred species with oral<sup>4</sup> administration of the Substance.

### 3. Long-term toxicity testing on aquatic invertebrates

Long-term toxicity testing on aquatic invertebrates is an information requirement under Annex IX to REACH (Section 9.1.5.).

You have adapted this information requirement under Section 1.5, Annex XI to REACH (Grouping of substances and read-across approach).

You have provided the following information:

- i. a study according to the OECD TG 211 with substance 1-dodecanol ( [REDACTED] 2005)

We have assessed this information and identified the following issue:

As explained in the Appendix on Reasons common to several requests Annex XI, Section 1.5. imposes two conditions whenever a read-across approach is used. Firstly, there needs to be structural similarity between the grouped substances. Secondly, the relevant properties of the Substance may be predicted from data for the reference substance.

To justify the read-across approach for this endpoint, you refer to the justification document attached to section 13 of IUCLID dossier (" [REDACTED] "). Within this document you aim to "support read-across to the Guerbet Alcohols using data from the C6-22 LCA and C12-32 Guerbet Alcohols categories".

Furthermore in your read-across justification document you state that "one-to-one approach is used for the endpoint long-term toxicity to aquatic invertebrates". You do not provide a separate justification for such analogue approach. As the source substance belongs to the category "C6-22 LCA" and the Substance belongs to the category "C12-32 Guerbet Alcohols", ECHA understands that the reasoning for the analogue approach provided in the category justification document applies also for this endpoint.

You define the structural basis for prediction as follows: "The similarity between SIDS Long Chain Alcohols and Guerbet Alcohols categories is based on their structural likeness [→ linear or branched alcohols at the C2 position; long chain alcohols C6-22 (SIDS LCA category) and C12-32 (Guerbet Alcohol category)] and their common functional group (→ alcohol group)."

You intend to predict long-term toxicity to aquatic invertebrates from information obtained from the substance Dodecan-1-ol (EC No. 203-982-0).

You provide the following reasoning for the prediction of this information requirement: "read-across from the Guerbet and Long Chain Alcohols categories to fill data gaps of other Guerbet alcohols for toxicity to aquatic organisms can be used for four reasons; (i) the substances are considered analogue substances, (ii) the toxicities of the substances are similar, and (iii) the information is reliable and (iv) the substances tested were without impurities". You also state that "the complexity of the structure as well as the chain length can have an influence

<sup>4</sup> ECHA Guidance R.7a, Section R.7.6.2.3.2.

on ecotoxicity".

ECHA understands that you predict the properties of the Substance using a read-across hypothesis which assumes that different compounds have the same type of effects. While there is an expected trend in toxicity due to carbon chain length, the properties are predicted to be quantitatively equal to those of the source substance if the carbon chain length is the same (i.e. irrespective of branching).

ECHA has assessed this information and notes the following shortcoming with regards to prediction of aquatic toxicity.

#### *1. Relevance of the supporting information*

According to the Guidance on IRs and CSA, Section R.6.2.2.1.f., *"it is important to provide supporting information to strengthen the rationale for the read-across approach. Thus, in addition to the property/endpoint being read-across, it is also useful to show that additional properties, relevant to the endpoint, are also (qualitatively or quantitatively) similar between the source and target chemicals"*.

The Substance and the source substance have the same carbon chain length, but the source substance is linear and the Substance is branched at the C2 position. To support your claim that the source substance and the Substance have similar ecotoxicological properties irrespective of branching, you refer to acute toxicity values on fish, invertebrates, and algae. You state for invertebrates that *"2-butyloctanol (C12) showed acute toxicity to Daphnia magna with an effects concentration of 0.14 mg/L. The analogue linear alcohol 1-Dodecanol showed a comparable result in an acute daphnia toxicity test with an EC50 of 0.765 mg/l (██████████ 1997)."*

You have not provided any evidence or justification as to how information on acute toxicity investigating immobility of daphnids, observed in a 48 hour study, is relevant for the prediction of chronic toxicity to reproductive output of daphnia in a long-term (21 day) study.

Accordingly, this information is not considered as relevant to support your hypothesis. Firstly, the provided supporting information investigates different effect endpoints (immobility versus reproductive output). Secondly, the Substance is lipophilic (logKow 5.5) and poorly soluble (water solubility below 1 mg/L) which indicate that steady state may not be reached in short-term studies (see section A.1). Therefore, long term studies would be required to observe and compare the true toxic potential of the substance(s). As a consequence, you have not established a reliable basis for predicting the properties of the endpoints under consideration.

Therefore, your read-across approach under Annex XI, Section 1.5. is rejected and the information requirement is not fulfilled.

In the comments to the draft decision, you agree to perform the requested study and you indicate your intention to use this data to support a read-across approach for other member of the Guerbert alcohols category.

#### *Study design*

The Substance is difficult to test due to the low water solubility (<1 mg/L) and adsorptive properties (log Kow 5.5). OECD TG 211 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 211. 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.

#### **4. Long-term toxicity testing on fish**

Long-term toxicity testing on fish is an information requirement under Annex IX to REACH (Section 9.1.6.).

You have provided 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 accordance with Column 2 of REACH Annex IX, the long-term aquatic toxicity to fish study (required in Section 9.1.6) does not need to be conducted as the chemical safety assessment according to Annex I indicates that this is not necessary"*.

We have assessed this information and identified the following issue:

Annex IX, Section 9.1., Column 2 does not allow omitting the need to submit information on 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).

Your adaptation is therefore rejected.

In the comments to the draft decision, you agree to perform the requested study and you indicate your intention to use this data to support a read-across approach for other member of the Guerbert alcohols category.

On this basis, the information requirement is not fulfilled.

#### *Study design*

OECD TG 210 specifies that for difficult to test substances OECD GD 23 must be followed. As already explained above, the Substance is difficult to test. Therefore, you must fulfil the requirements described in 'Study design' under Appendix C.3.

## Appendix D: Reasons to request information required under Annex X of REACH

### 1. Pre-natal developmental toxicity study in a second species

Pre-natal developmental toxicity (PNDT) studies (OECD TG 414) in two species is a standard information requirement under Annex X to REACH.

You have provided a study similar to OECD TG 414 in rabbit (Iglesias et al 2002 [3], key study) with the analogue substance docosan-1-ol, EC No. 211-546-6, CAS No. 661-19-8.

The study submitted is based on an adaptation under Annex XI, Section 1.5 (Grouping and read-across approach).

As explained in the Appendix on Reasons common to several requests Annex XI, Section 1.5. imposes two conditions whenever a read-across approach is used. Firstly, there needs to be structural similarity between the grouped substances. Secondly, the relevant properties of the Substance may be predicted from data for the reference substance.

You have provided a read-across justification document in [REDACTED] in IUCLID Section 13.2.

You predict the properties of the Substance from the structurally similar substance: docosan-1-ol, EC No. 211-546-6, (CAS No. 661-19-8 ; i.e. the source substance), a long chain linear alcohol.

The source study that you have used in your read-across approach, [Iglesias et al, 2002[3], corresponds to a Prenatal Developmental Toxicity Study performed according to a design similar to the OECD TG 414.

You have provided the following reasoning for the prediction of toxicological properties: *"structural similarity (i.e. all substances under consideration being part of a homologous group) and similar properties between SIDS Long Chain Alcohols and Guerbet Alcohols categories", including the common functional group (alcohol group), "support consideration of these substances as structural analogues for the purpose of read-across" and allows that "the information from this [Long Chain Alcohol] category can be used for read-across of data for certain end points to Guerbet Alcohols".*

In particular, you state that *"Due to its structural similarity and the same toxicological pattern in studies of acute and repeated oral toxicity 1-Docosan-1-ol is an appropriate read-across substance for the Guerbet alcohols and the data of the developmental toxicity study in rabbits can be read across".*

ECHA understands that you 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.

ECHA has assessed this information and notes the following shortcomings with regards to the prediction of toxicological properties.

- *Supporting information to compare properties of the substances*

As explained in the Appendix on Reasons common to several requests Annex XI, Section 1.5. states that it is important to provide supporting information to strengthen the read-across rationale in order to establish that the properties of the Substance can be predicted from the

data on the source substance(s). Relevant, reliable and adequate information is needed, for example from bridging studies of comparable design and duration, allowing to compare the properties of the Substance and of the source substance and confirm that both substances cause the same type of effects.

In particular it needs to be established that the source substance and the Substance cause the same type of effects despite the following structural differences identified between the source substance and the Substance: the source substance is linear with a carbon chain length of 22, the Substance has a carbon chain length of 8 and is branched at the C2 position.

In order to support your prediction you refer to the following information on the source substance: the developmental toxicity study used in the prediction as well as oral acute toxicity and sub-chronic toxicity (90-day) studies provided in the registration dossier. You also refer to information from an oral acute toxicity study with the Substance in the dossier.

However, ECHA notes that acute and repeated dose toxicity studies do not inform on the developmental toxicity properties of the Substance and of the source substance. Accordingly, this information is not considered as relevant to support your hypothesis.

In addition, your read-across justification and the technical dossier do not include any other information of comparable design and duration for the Substance and source substance that allow to compare the developmental toxicity properties between these substances. This means that no information is provided to establish that the structural differences identified between these substances, i.e. the branching compared to the linear structure of the alcohols, as well as the chain length, do not impact the prediction for the toxicological properties under consideration.

Therefore the data set reported in the technical dossier does not include relevant, reliable and adequate information for the Substance and the source substance to support your read-across hypothesis.

In the absence of such information, you have not established that the Substance and the source substance are likely to have similar properties. Therefore you have not provided sufficient supporting information to strengthen the rationale for the read-across.

Therefore, the information requirement is not fulfilled.

Your comments on the draft decision are addressed in section C of the Appendix on Reasons common to several requests above.

#### Information on study design

A PNDT study according to the OECD TG 414 study should be performed in the rabbit or rat as the preferred second species, depending on the species tested in the first PNDT study (request C.2 in this decision).

## **Appendix E: Requirements to fulfil when conducting and reporting new tests for REACH purposes**

### **A. Test methods, GLP requirements and reporting**

1. 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.
2. 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.
3. 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<sup>5</sup>.

### **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 all constituents of each Test Material and their concentration values and other parameters relevant for the property to be tested.

This information is needed to assess 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<sup>6</sup>.

<sup>5</sup> <https://echa.europa.eu/practical-guides>

<sup>6</sup> <https://echa.europa.eu/manuals>

## Appendix F: Procedure

The information requirement for an Extended one-generation reproductive toxicity study (EOGRTS; Annexes IX or X, Section 8.7.3.) is not addressed in this decision. This may be addressed in a separate decision once the information from the Sub-chronic toxicity study (90-day) requested in the present decision is provided; due to the fact that the results from the 90-day study is needed for the design of the EOGRTS. Similarly the information requirement for a Screening for reproductive/developmental toxicity (Annex VIII, Section 8.7.1.) is not addressed in this decision; as the EOGRTS will cover the same parameters.

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 05 January 2021.

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

ECHA took into account your comments and did not amend the request(s).

### Deadline to submit the requested information in this decision

In your comments on the draft decision, you requested an extension of the deadlines from 12 months to 30 months, for the study requested under C.1, and from 24 to 36 months, for the remaining studies, from the date of adoption of the decision to provide the requested information.

You have provided three laboratory statements along with your comments in which you based your request for a deadline extension on your proposed tier-testing approach for the mammalian studies (sub-chronic toxicity study and pre-natal developmental toxicity studies), starting with four OECD 422 studies. The statements from the 3 testing laboratories inform on the timelines required to conduct the four OECD 422 studies, as you are of the opinion that all four studies should be conducted in the same laboratory. You indicate that *"if a certain trend is observed within the group (e. g. decreasing toxicity with increasing C-chain length) it might be possible to avoid testing each single substance for all endpoints. Therefore, it is crucial that all OECD 422 studies will be finalized before any other study will be started. Consequently, the developmental toxicity study in rabbits (OECD 414) and the extended one generation study (OECD 443) which are requested by ECHA for 2-octyldodecan-1-ol will have to be performed afterwards."*

Furthermore, you motivated your request for a deadline extension also based on extra time needed for the aquatic toxicity testing. You point out that, in your experience, *"the performance of chronic aquatic toxicity studies of substances with very low water solubility is very time consuming due to the difficulty of analytical method development"*. You further stress that *"laboratories with high proficiency in performing these sophisticated aquatic analyses are limited"*, hinting at laboratory capacity challenges. To support your arguments, you have attached a statement from one testing laboratory outlining potential dates for delivery of a test report, taking into account the workload at the laboratory.

### *Development of the analytical method and laboratory capacity for aquatic toxicity testing*



In your comments, you have indicated a need for development of analytical method and laboratory capacity challenges. ECHA acknowledges that extra time may be needed to develop a suitable analytical method and to accommodate for the laboratory capacity as per the attached statement. For the reasons you put forward, ECHA acknowledges that a deadline extension is required however additional 9 months are considered sufficient to provided the requested information.

*Intention to develop an adaptation*

ECHA acknowledges your intention to fulfil the information requirements for the sub-chronic toxicity study and pre-natal developmental toxicity studies by other means than by generating the requested information, i.e. via a tier-testing approach with some category members.

However, the timeline set in this decision allows for generating the required data on the Substance, including sequential testing where applicable. Therefore, a further extension of the deadline set in this decision to accommodate the development of potential adaptations is not justified.

In conclusion, the deadline to submit the information remains 12 months for request C.1 and and the deadline to provide the rest of the requests is extended to 33 months from the date of the decision.

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<sup>7</sup> 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)<sup>8</sup>

RAAF - considerations on multiconstituent substances and UVCBs (RAAF UVCB, March 2017)<sup>9</sup>

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.

OECD Guidance documents<sup>10</sup>

<sup>7</sup> <https://echa.europa.eu/guidance-documents/guidance-on-information-requirements-and-chemical-safety-assessment>

<sup>8</sup> <https://echa.europa.eu/support/registration/how-to-avoid-unnecessary-testing-on-animals/grouping-of-substances-and-read-across>

<sup>9</sup> [https://echa.europa.eu/documents/10162/13630/raaf\\_uvcb\\_report\\_en.pdf/3f79684d-07a5-e439-16c3-d2c8da96a316](https://echa.europa.eu/documents/10162/13630/raaf_uvcb_report_en.pdf/3f79684d-07a5-e439-16c3-d2c8da96a316)

<sup>10</sup> <http://www.oecd.org/chemicalsafety/testing/series-testing-assessment-publications-number.htm>

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.

**Appendix H: Addressees of this decision and their corresponding information requirements**

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

<b>Registrant Name</b>	<b>Registration number</b>	<b>Highest REACH Annex applicable to you</b>
[REDACTED]	[REDACTED]	[REDACTED]
[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.