

Helsinki, 05 February 2020

**Addressee**

Registrant of JS\_91648-19-0 listed in the last Appendix of this decision

**Date of submission for the jointly submitted dossier subject of this decision**

24 April 2018

**Registered substance subject to this decision, hereafter 'the Substance'**

Substance name: 1-Propanaminium, N-(3-aminopropyl)-2-hydroxy-N,N-dimethyl-3-sulfo-, N-C12-14 acyl derivs., hydroxides, inner salts

EC number: 293-878-1

CAS number: 91648-19-0

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

**DECISION ON A COMPLIANCE CHECK**

Based on Article 41 of Regulation (EC) No 1907/2006 (REACH), ECHA requests that you submit the information listed below by the deadline of **12 February 2021**.

**A. Requirements applicable to all the Registrants subject to Annex VII of REACH**

1. Growth inhibition study aquatic plants (Annex VII, Section 9.1.2.; test method EU C.3./OECD TG 201) with the Substance;

**B. Requirements applicable to 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) with the Substance;
2. Only if a negative result in Annex VII, Section 8.4.1. and Annex VIII, Section 8.4.2. is obtained, In vitro gene mutation study in mammalian cells (Annex VIII, Section 8.4.3.; test method OECD TG 476 or TG 490) with the Substance;
3. Screening for reproductive/developmental toxicity (Annex VIII, Section 8.7.1.; test method OECD 421/422 in rats, oral route with the Substance;

**C. Requirements applicable to all the Registrants subject to Annex IX of REACH**

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

**Conditions to comply with the requests**

You are bound by the requests for information corresponding to the REACH Annexes applicable to your own registered tonnage of the Substance at the time of evaluation. Therefore you have to comply with the requirements of Annexes VII, VIII and IX of REACH.

The Appendix on general considerations addresses issues relevant for several requests while the other Appendices state the reasons for the requests for information to fulfil the requirements set out in the respective Annexes of REACH.

The Appendix entitled Observations and technical guidance addresses the generic approach for the selection and reporting of the test material used to perform the required studies and provides generic recommendations and references to ECHA guidance and other reference documents.

You must submit the information requested in this decision by the deadline indicated above in an updated registration dossier and also update the chemical safety report, where relevant, including any changes to classification and labelling, based on the newly generated information. The timeline has been set to allow for sequential testing where relevant.

## **Appeal**

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

Approved<sup>1</sup> under the authority of Christel Schilliger-Musset, 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 general considerations

### 1. Assessment of the Grouping of substances and read-across approach under Annex XI, Section 1.5 REACH.

You seek to adapt the following standard information requirements by applying read-across approaches in accordance with Annex XI, Section 1.5 of the REACH Regulation:

- 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.)
- Screening for reproductive/developmental toxicity (Annex VIII, Section 8.7.1.)
- Growth inhibition study aquatic plants (Annex VII, Section 9.1.2.)
- Long-term toxicity testing on aquatic invertebrates (Annex IX, Section 9.1.5.)

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

### Grouping of substances and read-across approach

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<sup>2</sup> and related documents<sup>3, 4</sup>.

#### I. Predictions for (eco)toxicological properties

You have provided a read-across justification in IUCLID Section 13.

In your read-across justification you have identified two structurally similar source substances:

- Propanaminium, N-(3-aminopropyl)-2-hydroxy-N,N-dimethyl-3-sulfo-, N-(C8-18(even numbered) acyl) derivs., hydroxides, inner salts; EC number: 939-455-3 (CAS No 1469983-49-0; C8-18 cocamidopropyl hydroxysultaine), and
- Propanaminium, N-(3-aminopropyl)-2-hydroxy-N,N-dimethyl-3-sulfo-, N-(C12-18(even numbered) acyl) derivs., hydroxides, inner salts; EC number: 939-457-4 (CAS No 1469983-50-3; C12-18 cocamidopropyl hydroxysultaine).

The source substances and the Substance contain C10, C12 and C14 alkyl chain lengths with the source substances containing shorter (C8) and longer alkyl chains (C18).

You have provided the following reasoning for the prediction of (eco)toxicological properties:

<sup>2</sup> ECHA Guidance R.6

<sup>3</sup> Read-Across Assessment Framework (RAAF)

<sup>4</sup> RAAF - considerations on multi-constituent substances and UVCBs

*"The substances are structurally similar and available data indicates that the compositions of the three different substances are comparable. It can therefore be concluded that an analogue Read-Across approach is viable."*

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 notes the following shortcomings with regards to predictions of (eco)toxicological properties.

*i. Read-across hypothesis*

According to Annex XI, Section 1.5., two conditions shall be necessarily fulfilled. Firstly, there needs to be structural similarity between substances which results in a likelihood that the substances have similar physicochemical, toxicological and ecotoxicological properties so that the substances may be considered as a group or category. Secondly, it is required that the relevant properties of a substance within the group may be predicted from data for reference substance(s) within the group (read-across approach).

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 source substance(s) and your Substance<sup>5</sup>. 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 similarity in chemical structure and in chemical composition between the source substances and the Substance is a sufficient basis for predicting the properties of your Substance for other endpoints.

While ECHA agrees that the source substances and your Substance share the common main constituents, you fail to explain why the stated differences in the chemical composition should not influence the toxicological/ ecotoxicological properties or should do so in a regular pattern.

In your comments on the draft decision you acknowledge the identified deficiencies in the read-across hypothesis regarding the failure to explain the impact of structural differences on the predictions for (eco)toxicological properties.

In conclusion, you have not provided a well-founded hypothesis to establish a reliable prediction for a toxicological or ecotoxicological property, based on recognition of the structural similarities and differences between the source substances and your Substance.

*ii. Missing supporting information*

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*"<sup>6</sup>. The set of

<sup>5</sup> ECHA Guidance R.6.

<sup>6</sup> ECHA Guidance R.6, Section R.6.2.2.1.f

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 the source substance(s).

Supporting information must include bridging studies to compare properties of the Substance and source substances.

As indicated above, your read-across hypothesis is based on the assumption that the structurally similar substances with similar composition cause the same type of effects.

In this context, relevant, reliable and adequate information allowing to compare the properties of the Substance and of the source substance(s) is necessary to confirm that both substance cause the same type of effects. Such information can be obtained, for example, from bridging studies of comparable design and duration for the Substance and of the source substance(s).

To support your hypothesis, for environmental properties you have provided short-term fish and *Daphnia* toxicity studies with the source substance C12-18 cocamidopropyl hydroxysultaine (EC number 939-457-4) and with the Substance.

However, for the studies claimed to be conducted with the Substance, you have not provided qualitative nor quantitative compositional information of the individual constituents of the test substances to establish that they are representative of your Substance.

In your comments to the draft decision, you propose to attempt obtaining this information for the studies with the source substance. In your comments you further indicate that the absence of compositional information of the test material is not expected to affect the read-across predictions. To support this, you indicate that the (eco)toxicological properties of the different constituents are likely to be similar hence differences in their distribution is not affecting the predictions. You further indicate that the currently available bridging studies (short-term fish and short-term *Daphnia*) show that the source substance and the Substance have similar toxicity.

ECHA notes that compositional information of the test material is already available in your dossier for the source studies, while it is missing for the studies conducted with the Substance, as explained above. You have not provided this information in your comments.

In the absence of information on test substance composition for the studies conducted with the Substance, the data set reported in the technical dossier does not allow to compare the properties of the Substance and of the source substance(s).

Consequently, you have not established that the Substance and the source substances are likely to have similar properties. Therefore you have not provided sufficient supporting information to strengthen the rationale for the read-across.

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

According to the ECHA Guidance<sup>7</sup> *"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"*.

<sup>7</sup> ECHA Guidance R.6, Section R.6.2.2.1.f

In order to support your claim that the Substance and source substance C8-18 cocamidopropyl hydroxysultaine have similar properties for the endpoints under consideration in the read-across approach, you refer to their acute toxicity and bacterial mutagenicity properties.

In your comments on the draft decision, you propose to generate (Q)SAR data to add further weight of evidence to the read across justification.

Whilst the data set suggests that the substances may have similar properties for acute toxicity and bacterial mutagenicity, these studies do not provide information on the developmental and reproductive toxicity properties of the Substance and source substance.

Predictions from (Q)SAR models may be of value in supporting read-across approaches, providing that the applicability domain of the models are appropriate<sup>8</sup>. However considering the complexity and amount of information needed from various function and parameters to evaluate endpoints such as reproductive or developmental toxicity, it is likely that QSAR predictions alone do not establish that structurally similar substances have similar properties for these endpoints.

## **II. 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 source substances. Therefore, your adaptation does not comply with the general rules of adaptation as set out in Annex XI, Section 1.5. REACH and your grouping and read-across approach is rejected.

### **2. Consideration on uses of the substance in relation to the tests requested in the decision**

In your comments to the draft decision you claim that the Substance is utilised as a cosmetic ingredient and therefore the unnecessary testing on vertebrate animals should be avoided.

ECHA points out that according to the ECHA factsheet available on the interface between REACH and Cosmetics Regulations, which was developed jointly with the European Commission<sup>9</sup>, the Cosmetics Regulation does not restrict testing under REACH, if this testing is required for environmental endpoints or the substance is also registered for non-cosmetic uses. In the (Chemical Safety Report) CSR you have reported many product categories/market uses for the registered substance, such as washing, cleaning and disinfecting products, metal surface treatment products, polishes and wax blends, and use of emulsifiers and foaming agents. Furthermore, even if a substance is registered exclusively for cosmetic use, the animal testing requirements continue to apply to tests needed to assess the risks from exposure to workers in the Chemical Safety Assessment. Such testing would not trigger the testing and marketing bans under the Cosmetics Regulation as the testing is to be performed for the purposes of meeting the requirements of the REACH Regulation; see Commission Communication of 11 March 2013 on the animal testing and marketing ban and on the state of play in relation to alternative methods in the field of cosmetics (COM(2013)135)).

Further information is available at <https://www.echa.europa.eu/-/clarity-on-interface-between-reach-and-the-cosmetics-regulation>

<sup>8</sup> ECHA Guidance R.7a, Section R.7.6.4.1.2

<sup>9</sup> Please see [https://echa.europa.eu/documents/10162/13628/reach\\_cosmetics\\_factsheet\\_en.pdf](https://echa.europa.eu/documents/10162/13628/reach_cosmetics_factsheet_en.pdf)

## **Appendix A: Reasons for the requests to comply with Annex VII of REACH**

Under Articles 10(a) and 12(1) of REACH, a technical dossier registered at 1 to 10 tonnes or more per year must contain, as a minimum, the information specified in Annex VII to REACH.

### **1. Growth inhibition study aquatic plants (Annex VII, Section 9.1.2.)**

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

You have provided a study by [REDACTED] 2009 – Key study, performed according to ISO 10253 (Water quality - Marine Algal Growth Inhibition Test with *Skeletonema costatum* and *Phaeodactylum tricornutum*), conducted with Propanaminium, N-(3-aminopropyl)-2-hydroxy-N,N-dimethyl-3-sulfo-, N-(C8-18(even numbered) acyl) derivs., hydroxides, inner salts; EC number: 939-455-3 (CAS No 1469983-49-0; C8-18 cocamidopropyl hydroxysultaine).

You have adapted this information requirement by using a read-across approach under Annex XI, Section 1.5 of REACH. As explained in the Appendix on general considerations, Section 1 your adaptation is rejected.

Furthermore, if the read-across is applied to a Growth inhibition study aquatic plants, then the results from the source study must provide the information required by Annex VII, Section 9.1.2..

The guideline followed in the source study is an acceptable alternative to the OECD TG 201, which is the preferred test method to cover this information requirement under REACH.<sup>10</sup> The OECD 201 require(s) that you must (among others):

- provide analytical monitoring to verify the initial concentrations and maintenance of the exposure concentrations during the test;
- provide evidence that exposure concentrations were maintained throughout the test (within  $\pm 20$  % of the nominal or initial measured concentration).

You have not carried out any analytical monitoring of the test concentrations. You have claimed that: *"The validity criteria were fulfilled except the lack of data relating to the analytical monitoring showing that the concentrations of the test item were maintained during the test. However, the test has been performed under semi-static conditions and according to the long-term toxicity to Daphnia, the substance is stable during 48 hours. Thus, we can considered that in a short-term study, the substance is also stable."*

However, contrary to your claim, the source study has been performed under static conditions with an exposure duration of 72h. In the provided long-term toxicity to *Daphnia* study with the same test substance, after 72h the measured test concentration was 43% of the nominal concentration (3.2 mg/L).

Therefore, you have not demonstrated that in the source study that the exposure concentrations are likely to have been maintained within  $\pm 20$  % throughout the test, as required by OECD TG 201.

In your comments on the draft decision, you agree to conduct the requested test.

<sup>10</sup> ECHA Guidance R.7b, Section 7.8.4.1

Therefore, the source study does not fulfil the information required by Annex VII, section Section 9.1.2. of REACH. Consequently, the information requirement is not fulfilled.

The preferred test method to cover this information requirement under REACH is the OECD TG 201.

**Appendix B: Reasons for the requests to comply with Annex VIII of REACH**

Under Articles 10(a) and 12(1) of REACH, a technical dossier registered at 10 to 100 tonnes or more per year must contain, as a minimum, the information specified in Annexes VII and VIII to REACH.

**1. In vitro cytogenicity study in mammalian cells or in vitro micronucleus study (Annex VIII, Section 8.4.2.)**

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 provided:

- i. [REDACTED] 2012 – Weight of evidence (WoE), *In vitro* mammalian chromosome aberration test (OECD TG 473) conducted using C8-18 cocamidopropyl hydroxysultaine which gave negative results.

You have indicated for the information WoE. However, you did not provide any WoE justification. The dossier only contains one read-across study and a read-across justification in section 13 of IUCLID.

Therefore, ECHA considers that you have adapted this information requirement by using a Grouping of substances and read-across approach under Annex XI, Section 1.5 of REACH. As explained in the Appendix on general considerations, Section 1 your adaptation is rejected.

Therefore, the information requirement is not fulfilled.

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

**2. In vitro gene mutation study in mammalian cells (Annex VIII, Section 8.4.3.)**

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.

You have provided:

- i. [REDACTED] 2012 – WoE, *In vitro* mammalian cell gene mutation test (OECD TG 476) conducted using C8-18 cocamidopropyl hydroxysultaine which gave negative results.

You have indicated for the information WoE. However, you did not provide any WoE justification. The dossier only contains one read-across study and a read-across justification in section 13 of IUCLID.

Therefore, ECHA considers that you have adapted this information requirement by using a Grouping of substances and read-across approach under Annex XI, Section 1.5 of REACH. As explained in the Appendix on general considerations, Section 1 your adaptation is rejected.

Therefore, the information requirement is not fulfilled.

The result of the request for information in Section B.1 above 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. Consequently, you are required to provide information for this endpoint, if the *in vitro* cytogenicity study in mammalian cells or an *in vitro* micronucleus study provides negative results.

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

### **3. Screening for reproductive/developmental toxicity (Annex VIII, Section 8.7.1.)**

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, QSAR 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 provided:

- i. [REDACTED] 2012 – Key study, Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test (OECD Guideline 422) conducted in rats with C8-18 cocamidopropyl hydroxysultaine (oral gavage) using the doses 30, 100, and 300 mg/kg/day. A NOAEL for parental toxicity of 100 mg/kg/day is reported based on histopathology in forestomach, lungs and kidneys and reduced body weight gain in females during pre-mating, gestation and lactation periods. A NOAEL for reproductive and developmental toxicity of 300 mg/kg bw/day is reported based on absence of any treatment-related effects.

You have adapted this information requirement by using a Grouping of substances and read-across approach under Annex XI, Section 1.5 of REACH. As explained in the Appendix on general considerations, Section 1 your adaptation is rejected.

Therefore, the information requirement is not fulfilled.

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<sup>11</sup> administration of the Substance.

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<sup>11</sup> ECHA Guidance R.7a, Section R.7.6.2.3.2.

## **Appendix C: Reasons for the requests to comply with Annex IX of REACH**

Under Articles 10(a) and 12(1) of REACH, a technical dossier registered at 100 to 1000 tonnes or more per year must contain, as a minimum, the information specified in Annexes VII to IX to REACH.

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

Long-term toxicity testing on aquatic invertebrates is a standard information requirement in Annex IX to REACH.

You have provided a study by [REDACTED] 2013 – Key study, performed according to OECD Guideline 211 (Daphnia magna Reproduction Test), conducted with C8-18 cocamidopropyl hydroxysultaine.

You have adapted this information requirement by using a read-across approach under Annex XI, Section 1.5 of REACH. As explained in the Appendix on general considerations, Section 1 your adaptation is rejected.

Therefore, the information requirement is not fulfilled.

The preferred test method to cover this information requirement under REACH is the OECD TG 211.

#### **Appendix D: Procedural history**

For the purpose of the decision-making, this decision does not take into account any updates of registration dossiers after the date on which you were notified the draft decision according to Article 50(1) of REACH.

The compliance check was initiated on 4 March 2019.

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 requests.

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 E: Observations and technical guidance

1. This compliance check decision does not prevent ECHA from initiating further compliance checks at a later stage on the registrations present.
2. Failure to comply with the requests in this decision, or to otherwise fulfil the information requirements with a valid and documented adaptation, will result in a notification to the enforcement authorities of the Member States.

3. Test guidelines, GLP requirements and reporting

Under Article 13(3) of REACH, all new data generated as a result of this decision needs to be conducted according to the test methods laid down in a European Commission Regulation or according 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 shall 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: 'How to report robust study summaries'<sup>12</sup>.

4. Test material

### *Selection of the test material(s)*

While selecting the test material you must take into account 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.

### *Technical reporting of the test material*

The composition of the selected test material must be reported in the respective endpoint study record, under the Test material section. The composition must include all constituents of the test material and their concentration values. Without such detailed reporting, ECHA may not be able to confirm that the test material is relevant for the Substance.

Technical instructions are available in the manual "How to prepare registration and PPORD dossiers"<sup>13</sup>.

5. List of references of the ECHA Guidance and other guidance/ reference documents<sup>14</sup>

### 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 in this decision.

### QSARs, read-across and grouping

<sup>12</sup> <https://echa.europa.eu/practical-guides>

<sup>13</sup> <https://echa.europa.eu/manuals>

<sup>14</sup> <https://echa.europa.eu/guidance-documents/guidance-on-information-requirements-and-chemical-safety-assessment>

Guidance on information requirements and chemical safety assessment, Chapter R.6 (version 1.0, May 2008), referred to as ECHA Guidance R.6 in this decision.

ECHA Read-across assessment framework (RAAF, March 2017)<sup>15</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.

#### OECD Guidance documents<sup>16</sup>

Guidance Document on aqueous-phase aquatic toxicity testing of difficult test chemicals – No 23, referred to as OECD GD23.

Guidance Document on Mammalian Reproductive Toxicity Testing and Assessment – No 43, referred to as OECD GD43.

<sup>15</sup> <https://echa.europa.eu/support/registration/how-to-avoid-unnecessary-testing-on-animals/grouping-of-substances-and-read-across>

<sup>16</sup> <http://www.oecd.org/chemicalsafety/testing/series-testing-assessment-publications-number.htm>

**Appendix F: List of the registrants to which the decision is addressed and the corresponding information requirements applicable to them**

<b>Registrant Name</b>	<b>Registration number</b>	<b>(Highest) Data requirements to be fulfilled</b>
[REDACTED]	[REDACTED]	[REDACTED]

Note: where applicable, the name of a third party representative (TPR) may be displayed in the list of recipients whereas the decision is sent to the actual registrant.