~~Confidential~~

Helsinki, 25 February 2022

Addressees
Registrant(s) of JS_68526-89-6 as listed in the last Appendix of this decision

Date of submission of the dossier subject to this decision
23/11/2017

Registered substance subject to this decision ("the Substance")
Substance name: Octene, hydroformylation products, high-boiling
EC number: 271-237-7
CAS number: 68526-89-6

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 below by ***2 December 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. Short-term toxicity testing on aquatic invertebrates (Annex VII, Section 9.1.1.; test method: EU C.2./OECD TG 202)

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. Short-term toxicity testing on fish (Annex VIII, Section 9.1.3.; test method: OECD TG 203)

2. Simulation testing on ultimate degradation in surface water also requested below (triggered by Annex VIII, Section 9.2.)

3. Soil simulation testing also requested below (triggered by Annex VIII, Section 9.2.)

4. Sediment simulation testing also requested below (triggered by Annex VIII, Section 9.2.)

5. Identification of degradation products also requested below (triggered by Annex VIII, Section 9.2.)

C. Information required from 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)

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

3. 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.

4. 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.

5. 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.

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

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 (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 Annexes VII to X to REACH, for registration at [redacted]

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". 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 are necessary for the PBT assessment. However, to determine the testing needed to reach the conclusion on the persistency of the Substance you should consider the sequence in which these tests are performed, potential alternative testing strategies 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 Mike Rasenberg, 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. **Long-term aquatic toxicity**

You have provided the following similar information and same adaptations for long-term toxicity testing on aquatic invertebrates and on fish (Sections 9.1.5. and 9.1.6 of Annex IX to REACH respectively):

i. A justification to omit the studies on long-term toxicity on aquatic invertebrates and on fish 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 Annex IX of Regulation (EC) No 1907/2006, it is laid down that long-term toxicity testing shall be proposed by the registrant if the chemical safety assessment indicates the need to investigate further the effects on aquatic organisms. According to Annex I of this regulation, the chemical safety assessment triggers further action when the substance or the preparation meets the criteria for classification as dangerous according to Directive 67/548/EEC or Directive 1999/45/EC or is assessed to be a PBT or vPvB. The hazard assessment of Octene, hydroformylation products, high boiling reveals neither a need to classify the substance as dangerous for the environment, nor is it a PBT or vPvB substance.*"

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 on aquatic invertebrates and on fish under Column 1. It must be understood as a trigger for providing further information on aquatic invertebrates if the chemical safety assessment according to Annex I indicates the need (Decision of the Board of Appeal in case A-011-2018).

Therefore, your adaptation is rejected.

2. **Degradation testing: Assessment of your Column 2 adaptation based on ready biodegradation**

You have provided the following same adaptation for simulation testing on ultimate degradation in surface water, on soil and on sediment (Sections 9.2.1.2., 9.2.1.3. and 9.2.1.4. and 9.2.3 of Annex IX to REACH respectively):

- An adaptation under Annex IX, Section 9.2., Column 2 with the following justification: "*the study does not need to be conducted because the substance is readily biodegradable* ".

We have assessed this information and identified the following issues:

Under Sections 9.2.1.2., 9.2.1.3. and 9.2.1.4., and 9.2.3 of Column 2 of Annex IX to REACH, the studies may be omitted if the substance is readily biodegradable.

You have provided a key ready biodegradability study on the Substance according to OECD TG 301B (80-90% degradation after 28 days based on analysis of CO2 evolution).

As explained in Appendix B, section 2, it is not possible to conclude whether the constituents of the Substance can be expected to be homogeneous in terms of their biodegradability. Any biodegradation observed in a ready biodegradability test performed with the Substance would not be sufficient to conclude that all the constituents of the Substance are readily biodegradable. Furthermore, the information available in the registration dossier indicates

that the Substance is a potential PBT/vPvB substance. As explained in ECHA Guidance R.11, in principle, degradation simulation studies performed in appropriate environmental media and at environmentally realistic conditions are the only tests that can provide a definitive degradation half-life that can be compared directly to the persistence criteria as defined in REACH Annex XIII.

Therefore, your adaption is rejected.

In your comments to the initial draft decision, you outline a number of comments on degradation, persistence and PBT assessment, as follows:

> You agree that the conclusion in the submitted dossier "The substance is readily biodegradable." is inappropriate regarding the assessment of biodegradability of a UVCB and that the relevant and corresponding chapters/endpoints will be revised. The updated key information is that the substance is to be considered ultimately biodegradable.

3. Aquatic toxicity studies with water accommodated fractions

You have provided the information based on results of experimental study with use of water accommodated fraction (WAF) for short-term toxicity testing on aquatic invertebrates according to OECD TG 202, for growth inhibition study aquatic plants according to OECD TG 201 and for short-term toxicity testing on fish key study according to OECD TG 203 (Sections 9.1.1. and 9.1.2 of Annex VII and Section 9.1.3 of Annex VIII to REACH respectively).

To fulfil the respective information requirements, a study must comply with OECD TG 202 (Section 9.1.1. of Annex VII to REACH) or with OECD TG 201 (Section 9.1.2 of Annex VII to REACH) or with OECD TG 203 (Section 9.1.3 of Annex VIII to REACH) and the requirements of OECD GD 23 (ENV/JM/MONO(2000)6/REV1) if the substance is difficult to test (Article 13(3) of REACH). Therefore, the following specifications must be met:

- 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;
- it should be demonstrated that the approach used to prepare test solutions was adequate to maximise the concentration of the Substance in the test solutions;
- a WAF is specific to a substance (UVCB) since it can contain multiple dissolved constituents whose proportions depend on individual water solubility and the mass-to-volume ratio of the preparation. Consequently, WAFs must be prepared separately for each dose level (loading rate). WAFs are prepared individually and not by serial dilution of a single stock WAF;
- biological results on observed effects should be determined on (at least) a daily basis and reported in tabular form for each treatment and control group:
  - for OECD TG 202: the number of immobilised daphnids is determined at 24 and 48 hours;
  - for OECD TG 201: the results of algal biomass;
  - for OECD TG 203: mortalities; frequency of observations includes at least 2 observations within the first 24 hours and at least two observations per day from day 2 to 4.

Your registration dossier provides an OECD TG 202, OECD TG 201 and key OECD 203 studies showing the following:

- Analytical monitoring of exposure was conducted measuring total organic carbon (TOC) content at 0 and 48 hours (in OECD TG 202 study), at 0 and 72 hours (in OECD TG 201 study) and at 0 (fresh media), 24 (old media), 72 (fresh media) and 96 hours (old media) (in key OECD TG 203 study). You also indicated in the dossier in respect of the TOC analysis results that:
    - for OECD TG 202 study: '*all results were lower than the limit of quantitation of the analytical method, therefore the results were based on nominal loading rates only*'.
    - for OECD TG 201 study: '*Given the background level of carbon in the control vessels and also the low level of carbon in the test vessels, it was considered that the results gave no evidence of the presence of test material in the WAFs.'*.
    - for key OECD TG 203 study: "*No significant differences in the amount of carbon present within the 100 mg/L loading rate WAF test vessels compared to the control vessels. Based on the background level of carbon in the control vessels it is considered that all results were around the limit of quantification of the analytical method."*
- You have provided no justification why analytical monitoring of exposure concentrations with a lower limit of quantification is not technically feasible.
- The studies were conducted at only one (limit) loading rate.
- Information on biological results on observed effects for each treatment and/or control group are not reported.

The Substance is difficult to test, due to the UVCB nature of it, volatility of some constituents, and adsorptive properties of constituents (log Koc values range: from app. 4.40 to >5.63).

Based on the above, there are critical methodological deficiencies resulting in the rejection of the study results.

- More specifically, you have not demonstrated:
    - that the approach used to prepare test solutions was adequate to maximise the concentration of the Substance in the test solutions;
    - why the analytical monitoring of exposure concentrations at lower concentrations than the detection/quantification limits of the analytical method used in each study is not technically feasible.
- Testing of the Substance (which is UVCB) at one (limit) loading rate is not sufficient to conclude that the Substance at lower loading rate(s) will not be toxic to aquatic organisms due to the possible presence of more toxic constituent(s) in the test solution at higher concentration than in the test solution at the limit loading rate.
- Due to the absence of information on biological results on observed effects for each treatment and/or control group, the reporting of the studies is not sufficient to conduct an independent assessment of their reliability.

Therefore, the requirements of OECD TG 202, of OECD TG 201 and of OECD TG 203 are not met.

4. Degradation testing: Assessment of your adaptation under Annex XI, Section 2

In your comments to your initial draft decision, ECHA understands that you propose:

1. An adaptation under Annex XI, Section 2 specifies the general rules for adapting the standard information requirement when testing is not technically possible.

For the following standard information requirements:

- Simulation testing on ultimate degradation in surface water (Annex IX, Section 9.2.1.2.)
- Soil simulation testing (Annex IX, Section 9.2.1.3.)
- Sediment simulation testing (Annex IX, Section 9.2.1.4.)
- Identification of degradation products (Annex IX, 9.2.3.)

We have assessed this information and identified the following issues:

Annex XI, Section 2 specifies the general rules for adapting the standard information requirement when testing is not technically possible. The guidance on the technical limitations of the test method given in the test guideline itself or in relevant guidance complementing the test guideline must always be respected.

You have provided a list of general statements to indicate why you consider testing is not technically but no further (experimental) information with your comments on the initial draft decision:

i. The testing of the complex UVCB is not technically possible
   a. Relevant constituents of the Substance cannot be determined
   b. it seems scientifically ambiguous to fractionate the substance into subfractions for meaningful and reliable simulation.
      Radiolabelling of this UVCB is not possible due to the complex manufacturing process and the complexity of the substance itself (bottoms product).

ii. Defined relevant constituents are not known and thus cannot be subject to radiolabelling by specific synthesis.

iii. For the same reason, the use of (Q)SAR models is not feasible.
   a. Random radiolabelling of complex UVCBs or fractions thereof will not lead to any interpretable result with regard to the degradation of the substance or fractions.

Therefore, these remain unsupported hypotheses instead of justifications. For instance, you have not demonstrated that you have explored the different available analytical techniques for the determination of the compositional analysis of this substance such as Gel Permeation Chromatography (GPC), Gas Chromatography (GC) and Liquid Chromatograph-Mass spectrometry (LC-MS) or other analytical technique that may potentially be used to overcome the technical difficulties identified in your comments. Alternatively, if neither all single constituents can be identified nor separation into fractions is applicable a justification should still be provided: e.g., a statement from an analytical chemist confirming that the analytical methods used were state of the art, a justification as to why lower detection limits were not feasible and a description of any preliminary analytical efforts. However, you have not addressed any of these for these endpoints.

Therefore, your adaptation is rejected.

5. Assessment of your weight of evidence adaptation under Annex XI, Section 1.2

In your comments to the initial draft decision, you have adapted the following standard information requirements by applying a weight of evidence (WoE) adaptation in accordance with Annex XI, section 1.2:

- Simulation testing on ultimate degradation in surface water (Annex IX, Section 9.2.1.2.)
- Soil simulation testing (Annex IX, Section 9.2.1.3.)
- Sediment simulation testing (Annex IX, Section 9.2.1.4.)
- Identification of degradation products (Annex IX, 9.2.3.)

To support your weight of evidence you have provided the following information:

1. You are of the opinion that the testing is scientifically not necessary as existing data addresses the endpoint adequately, without further specifications.
2. The result of an enhanced OECD TG 301 B (prolonged) present in our dossier demonstrated that the substance is ultimately biodegradable within 42 days.

ECHA has considered the scientific and regulatory validity of your weight of evidence approach in general before assessing the specific standard information requirements in the following appendices. Your weight of evidence adaptation raises the same decifiencies irrespective of the information requirement for which it is invoked and which are therefore addressed here.

1) Single source

Annex XI, Section 1.2 states that there may be sufficient weight of evidence "*from several independent sources of information*".

You have only provided one source of information.

You refer to other 'existing data, without any identification and these data cannot therefore be taken into account.

Therefore, your adaptation must be rejected.

2) Lack of justification

Annex XI, Section 1.2 states that there may be sufficient weight of evidence from several independent sources of information leading to assumption/conclusion that a substance has or has not a particular dangerous (hazardous) property, while information from a single source alone is insufficient to support this notion.

According to ECHA Guidance R.4, a weight of evidence adaptation involves an assessment of the relative values/weights of the different sources of information submitted. The weight given is based on the reliability of the data, consistency of results/data, nature and severity of effects, and relevance and coverage of the information for the given regulatory information requirement. Subsequently, relevance, reliability, coverage, consistency and results of these sources of information must be balanced in order to decide whether they together provide sufficient weight to conclude that the Substance has or has not the (dangerous) property investigated by the required study.

Annex XI, section 1.2 requires that adequate and reliable documentation is provided to describe your weight of evidence approach.

However, for each relevant information requirement, you have not submitted any explanation why the sources of information provide sufficient weight of evidence leading to the conclusion/assumption that the Substance has or has not a particular dangerous property.

Your adaptation is rejected because of lack of adequate and reliable documentation for justification and the information requirement is not fulfilled.

Despite this critical deficiency, ECHA has nevertheless assessed the validity of your adaptation.

3) <u>Relevance of the different pieces of information</u>

The sources of information need to provide sufficient weight of evidence to conclude that the information requirements for OECD TG 307, OECD TG 308 and OECD TG 309 are fulfilled for the properties of degradation in water, soil and sediment as well as for the identification of degradation products.

ECHA has assessed to what extent the sources of information submitted enables a conclusion on these properties as investigated in the information requirements proposed to be adapted and identified deficiencies in the endpoint sections B.**Error! Reference source not found.**-5 and C.**Error! Reference source not found.**-6.

The key investigations addressed by these information requirements are:

For surface water:

1) the rate of aerobic transformation of the test material in natural surface water, and
2) the identity and rates of formation and decline of transformation/degradation products;
    1) are detected at ≥ 10% of the applied radioactivity (AR) in the total water-sediment system at any sampling time, or
    2) are continuously increasing during the study even if their concentrations are < 10% AR (unless appropriate justification is provided).

For soil:

1) the rate of aerobic and anaerobic transformation of the test material in four soil types, and
2) the identity and rates of formation and decline of transformation products in at least one soil type;

For sediments:

1) the rate of aerobic and/or anaerobic transformation of the test material on at least two sediments, and
2) the identity and rates of formation and decline of transformation products;

For the identification of degradation products:

1) Identification of degradation products.

The single source of information does not cover these key investigations.

Furthermore, the reliability of this source of information is significantly affected by the deficiencies identified and presented below.

The specifications of OECD TG 301B include:

- The source of the inoculum and any pre-conditioning treatment are reported;
- The test temperature is reported;
- The methods of preparation of test solutions/suspensions is reported;
- The results of measurements at each sampling point in each replicate is reported in a tabular form;
- Any observed inhibition phenomena and/or abiotic degradation are reported.

In your comments to the initial draft decision, you have identified an experimental study which was also included in the registration dossier assessed for this draft decision. However, the submitted information is still without the information reported, as specified above.

Further, you indicate that this study was conducted on the Substance. This is not appropriate for a UVCB such as the Substance for the reasons provided under Appendix B, Section 2.

Therefore, you have not demonstrated that the provided study is reliable.

Taken together, the relevant source of information as indicated above, does not provide information on the key investigations to be addressed by the corresponding information requirements. Further, the information provided is not reliable.

Therefore, it is not possible to conclude, based on any source of information alone or considered together, whether your Substance has or has not the particular dangerous property foreseen to be investigated by the corresponding studies based on Annex IX, Section 9.2.1, Column 2. Therefore, your adaptation is rejected, and the information requirement is not fulfilled.

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

1. Short-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.).

You have provided the following information:

i. A key study conducted according to OECD TG 202 with use of WAF.

We have assessed this information and identified the following issue:

As explained in the Appendix on Reasons common to several requests, the requirements of OECD TG 202 are not met. On this basis, the information requirement is not fulfilled.

In the comments to the draft decision, you stated that the information requirement under Annex VII, Section 9.1.1. will be waived according to column 2 as you agree to perform an OECD TG 211 with the Substance.

This information is not available and therefore the request is maintained.

Study design

The Substance is difficult to test due to its UVCB nature, volatility of some constituents and adsorptive properties (based on the information in the registration dossier log Koc of most of constituents of the Substance is >5.63). OECD TG 202 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 202. 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 solutions.

For multi-constituents/UVCBs, the analytical method must be adequate to monitor qualitative and quantitative changes in exposure to the dissolved fraction of the test material during the test (e.g. by comparing mass spectral full-scan GC or HPLC chromatogram peak areas or by using targeted measures of key constituents or groups of constituents).

If you decide to use the Water Accommodated Fraction (WAF) approach, in addition to the above, you must:

- use loading rates that are sufficiently low to be in the solubility range of most constituents (or that are consistent with the PEC value). This condition is mandatory to provide relevant information for the hazard and risk assessment (ECHA Guidance, Appendix R.7.8.1-1, Table R.7.8-3);
- provide a full description of the method used to prepare the WAF (including, among others, loading rates, details on the mixing procedure, method to separate any remaining non-dissolved test material including a justification for the separation technique);
- prepare WAFs separately for each dose level (i.e. loading rate) and in a consistent

manner.

2. Growth inhibition study aquatic plants

Growth inhibition study aquatic plants is an information requirement under Annex VII to REACH (Section 9.1.2.).

You have provided the following information

i. A key study conducted according to OECD TG 201 with use of WAF.

We have assessed this information and identified the following issue:

As explained in the Appendix on Reasons common to several requests, the requirements of OECD TG 201 are not met. On this basis, the information requirement is not fulfilled.

In the comments to the initial draft decision, you agree to perform the requested study.

Study design

OECD TG 201 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 A.1.

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

1. Short-term toxicity testing on fish

Short-term toxicity testing on fish is an information requirement under Annex VIII to REACH (Section 9.1.3.).

You have provided the following information:

i. A key study (2009) conducted according to OECD TG 203 with use of WAF
ii. A supporting study (1991) conducted according to DIN 38412
iii. A supporting study (1994) conducted according to OECD TG 203

We have assessed this information and identified the following issues:

Key study

As explained in the Appendix on Reasons common to several requests, the requirements of OECD TG 203 are not met for the provided key study.

Supporting studies (ii) and (iii)

To fulfil the information requirement, a study must comply with OECD TG 203 and the requirements of OECD GD 23 (ENV/JM/MONO(2000)6/REV1) if the substance is difficult to test (Article 13(3) of REACH). Therefore, the following specifications must be met:

- the analytical measurement of test concentrations is conducted;
- the results of the analytical determination of exposure concentrations throughout the test duration are provided;
- mortalities and sub-lethal effects (*e.g.* with regard to equilibrium, appearance, ventilator and swimming behaviour) for each control and treatment group are reported. The frequency of observations includes at least 2 observations within the first 24 hours and at least two observations per day from day 2 to 4;
- qualitative and quantitative information on the compositions of the test material used in the study should be provided to allow an independent assessment of their relevance.

Your registration dossier provides an OECD TG 203 showing the following:

- no analytical measurement of test concentrations was conducted for the supporting study ii;
- the results of the analyses to determine the concentration of the test substance in the test vessels throughout the test duration are not provided for the supporting study iii;
- tabulated data on mortalities and sub-lethal effects for each treatment group and control are not reported for the supporting study iii;
- in the summary of IUCLID section 6.1.1 you note for the supporting study iii that "*the tested substance is not comparable to the present composition of the Octene, hydroformylation products, high boiling*"; there is no information provided in the registration dossier on the identity and concentration of the individual constituents of the test material for the supporting study iii.

Based on the above, there are critical deficiencies resulting in the rejection of the supporting study ii and the reporting of the supporting study (iii) is not sufficient to conduct an independent assessment of its reliability and relevance. Therefore, the requirements of OECD TG 203 are not met for the supporting studies (ii) and (iii).

On this basis, the information requirement is not fulfilled.

In the comments to the draft decision, you stated that the information requirement under Annex VIII, Section 9.1.3. will be waived according to column 2 as you agree to perform an OECD TG 210 with the Substance.

This information is not available and therefore the request is maintained.

Study design

OECD TG 203 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 A.1.

2. Simulation testing on ultimate degradation in surface water

Further degradation testing must be considered if the chemical safety assessment (CSA) according to Annex I indicates the need to investigate further the degradation of the substance (Annex VIII, Section 9.2., Column 2).

This information requirement is triggered in case the chemical safety assessment (CSA) indicates the need for further degradation investigation (Annex I, Section 4; Annex XIII, Section 2.1), such as if the substance is a potential PBT/vPvB substance (ECHA Guidance R.11.4.). This is the case if the Substance itself or any of its constituent or impurity present in concentration ≥ 0.1% (w/w) or relevant transformation/degradation product meets the following criteria:

i. it is potentially persistent or very persistent (P/vP) if it is not possible to conclude that the Substance, any of its constituent or impurity present in concentration ≥ 0.1% (w/w), or relevant transformation/degradation product is readily biodegradable. In this regard, the OECD "*Guidelines for the Testing of Chemicals, Revised Introduction to the OECD Guidelines for Testing of Chemicals, Section 3 Part I: Principles and Strategies related to the Testing of Degradation of Organic Chemicals*"[2] indicates that ready biodegradability tests are intended for pure substances and are generally not applicable for complex compositions containing different types of constituents, typically UVCB and multiconstituent substances. For UVCB and multiconstituent substances, any observed biodegradation may indeed reflect the biodegradation only of some constituents. This OECD document further indicates that "*it is sometimes relevant to examine the ready biodegradability of mixtures of structurally similar chemicals*", but "*a case by case evaluation should however take place on whether a biodegradability test on such a complex mixture would give valuable information regarding the biodegradability of the mixture as such (i.e. regarding the degradability of all the constituents) or whether instead an investigation of the degradability of carefully selected individual components of the mixture is required*".

ii. it is potentially bioaccumulative or very bioaccumulative (B/vB) as:
   - it has a high potential to partition to lipid storage (*e.g.* log K_{ow} > 4.5).

Your registration dossier provides the following:

- In relation to persistence assessment:
    - Description of the Substance as a UVCB substance. Based on the information provided in the registration dossier, it contains constituents from various chemical classes (e.g. alcohols, acids, diols, ethers, esters (all classes,

[2] https://www.oecd-ilibrary.org/docserver/9789264030213-en.pdf?expires=1634558948&id=id&accname=guest&checksum=3C5F4AAB82C23E11087C8CBE20195342

branched and linear)) with various carbon chain lengths.

- a key ready biodegradability study on the Substance according to OECD TG 301B (80-90% degradation after 28 days based on analysis of CO2 evolution) on the basis of which you conclude that the Substance is readily biodegradable.

- In relation to bioaccumulation potential:
  - A number of constituents of the Substance have log Kow above 4.5 (based on log Kow information for the constituents reported in the key study, i.e. >3.8 and in the supporting study, i.e. 8.5-8.9).
  - In the IUCLID dossier, section 2.3 and in the CSR, section 8.1.1.1.2. you indicate that "*No test data on the bioaccumulation potential of the substance are available. Based on the screening criteria, a log pow above 4.5, a bioaccumulation in aquatic organisms of its components cannot be excluded, as the measured log pow for Octene, hydroformylation products, high boiling is above 3.8.*"
  - In respect of the information requirement for bioaccumulation in aquatic species under Annex IX to REACH (Section 9.3.2.) in the IUCLID dossier, section 5.3.1 you provide justification for the data waiving noting that "*Study technically not feasible as radiolabelling of the substance is not possible. Octene, hydroformylation products, high boiling, is a complex UVCB consisting of a multitude of (non-specific) structures with no pronounced lead structures/constituents. Therefore, radiolabelling of this UVCB is not possible due to the complex manufacturing process and the complexity of the substance itself (bottom product). Therefore, standard tests regarding the bioaccumulation in fish (OECD test guideline 305), which are designed for testing single substances, are not feasible for this UVCB as defined relevant constituents are not known and thus cannot be subject to radiolabelling by specific synthesis. For the same reason, the use of (Q)SAR models are not feasible.*" You further refer in your justification to the assessment and testing approaches noted in ECHA Guidance R.11 and summarise that "*As described already in the remark field under the section "Justification for data waiving", neither of the listed approaches is suitable for Octene, hydroformylation products, high boiling. As no marker substance can be determined with allocation of reasonable efforts, no analytical verification in test medium or organisms can be measured. Conducting a bioaccumulation study without analytical verification is neither meaningful nor appropriate.*"

We have assessed this information and identified the following issues:

Persistence assessment

The Substance is a UVCB substance. Based on the information provided in the registration dossier, it contains constituents from various chemical classes (e.g. ether-alcohols, aldols, branched and linear alcohols, diols, acetals, ethers) with various carbon chain lengths. The carbon chain length, presence of branching on the alkyl chains and of specific functional groups may have an impact on the biodegradation of the specific constituents of the Substance. Thus, the submitted information, a ready biodegradability on the Substance as a whole, is not appropriate to assess the biodegradability of the relevant individual constituents of the Substance. Therefore, it is not possible to conclude whether the constituents of the Substance can be expected to be homogeneous in terms of their biodegradability. Any biodegradation observed in a ready biodegradability test performed with the Substance would

not be sufficient to conclude that all the constituents of the Substance are readily biodegradable.

Further, you have provided no study investigating the degradability of carefully selected individual constituents of the Substance which for example, would represent worst-case in respect of degradability.

Therefore, the available information does not rule out that the Substance, any of its constituents or relevant transformation/degradation products are potentially persistent or very persistent (P/vP).

Bioaccumulation potential

A number of constituents of the Substance have log Kow above 4.5

Therefore, Substance (some of its constituents) are potentially bioaccumulative or very bioaccumulative (B/vB).

Further, in respect of feasibility of bioaccumulation testing, it should be noted that the trigger for simulation study is based on PBT/vPvB potential, and whether further bioaccumulation testing is feasible does not impact whether there is PBT/vPvB potential or not.

Furthermore, ECHA Guidance R.11 on PBT assessment explains about the integrated testing strategies (ITS) for the P, B and T assessments, including specifically for the complex UVCB substances. Presented approaches foresee testing not only of the whole substance, but also of various fractions, constituents. 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. You have not underpinned your justification for feasibility of PBT/vPvB assessment approaches and bioaccumulation testing by any documented evidence to justify the limitations of available methods to identify constituents and/or fractions present in the composition of the Substance, to perform their screening assessment for PBT/vPvB identification and to isolate/synthesize any relevant constituent/fraction for the testing in case of the need.

Thus, there is no sufficient information to substantiate your claim in respect of bioaccumulation study.

Thus, all above considerations indicate that there is no sufficient information available to rule out bioaccumulation potential for Substance, any of its constituents or relevant transformation/degradation products in line with principles of integrated testing strategy of PBT/vPvB assessment explained in ECHA Guidance R.11.

The information above indicates that the Substance is a potential PBT/vPvB substance.

Therefore, the chemical safety assessment (CSA) indicates the need for further degradation investigation.

The examination of the available information or adaptations, as well as the selection of the requested test and the test design are addressed respectively in Appendix C, section 3.

Your comments on the initial draft decision for this endpoint do not change this assessment for the same reasons developed under Appendix C, Section 3.

3. Soil simulation testing

Further degradation testing must be considered if the chemical safety assessment (CSA) according to Annex I indicates the need to investigate further the degradation of the substance (Annex VIII, Section 9.2., Column 2).

This information requirement is triggered in case the chemical safety assessment (CSA) indicates the need for further degradation investigation (Annex I, Section 4; Annex XIII, Section 2.1), such as if the substance is a potential PBT/vPvB substance (ECHA Guidance R.11.4.).

As explained in the Appendix B, section 2 above, the information available for the Substance indicates that the Substance is a potential PBT/vPvB substance. Furthermore, based on the information in the registration dossier adsorption coefficient (log Koc) of constituents of the Substance is above 5.63, indicating high potential to adsorb to soil.

Therefore, the CSA indicates the need for further degradation investigation. Based on the adsorptive properties of the Substance, soil represents a relevant environmental compartment.

The examination of the available information or adaptations, as well as the selection of the requested test and the test design are addressed respectively in Appendix C, section 4.

You comments on the initial draft decision for this endpoint do not change this assessment for the same reasons developed under Appendix C, Section 3.

4. Sediment simulation testing

Further degradation testing must be considered if the chemical safety assessment (CSA) according to Annex I indicates the need to investigate further the degradation of the substance (Annex VIII, Section 9.2., Column 2).

This information requirement is triggered in case the chemical safety assessment (CSA) indicates the need for further degradation investigation (Annex I, Section 4; Annex XIII, Section 2.1), such as if the substance is a potential PBT/vPvB substance (ECHA Guidance R.11.4.).

As explained in the Appendix B, section 2 above, the information available for the Substance indicates that the Substance is a potential PBT/vPvB substance. Furthermore, based on the information in the registration dossier adsorption coefficient (log Koc) of constituents of the Substance is above 5.63, indicating high potential to adsorb to sediment.

Therefore, the CSA indicates the need for further degradation investigation. Based on the adsorptive properties of the Substance, sediment represents a relevant environmental compartment.

The examination of the available information or adaptations, as well as the selection of the requested test and the test design are addressed respectively in Appendix C, section 5.

You comments on the initial draft decision for this endpoint do not change this assessment for the same reasons developed under Appendix C, Section 3.

5. Identification of degradation products

Further degradation testing must be considered if the chemical safety assessment (CSA) according to Annex I indicates the need to investigate further the degradation of the substance (Annex VIII, Section 9.2., Column 2).

This information requirement is triggered in case the chemical safety assessment (CSA) indicates the need for further degradation investigation (Annex I, Section 4; Annex XIII, Section 2.1), such as if the substance is a potential PBT/vPvB substance (ECHA Guidance R.11.4.).

As explained in the Appendix B, section 2 above, the information available for the Substance indicates that the Substance is a potential PBT/vPvB substance.

Therefore, the chemical safety assessment (CSA) indicates the need for further degradation investigation.

The examination of the available information or adaptations, as well as further information on the selection of the approach to generate this information are addressed in Appendix C, section 6.

Your comments on the initial draft decision for this endpoint have been addressed under Appendix C, Section 3.

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

1. 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 provided the following information:

i. 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 *Annex IX of Regulation (EC) No 1907/2006, it is laid down that long-term toxicity testing shall be proposed by the registrant if the chemical safety assessment indicates the need to investigate further the effects on aquatic organisms. According to Annex I of this regulation, the chemical safety assessment triggers further action when the substance or the preparation meets the criteria for classification as dangerous according to Directive 67/548/EEC or Directive 1999/45/EC or is assessed to be a PBT or vPvB. The hazard assessment of Octene, hydroformylation products, high boiling reveals neither a need to classify the substance as dangerous for the environment, nor is it a PBT or vPvB substance.*"

We have assessed this information and identified the following issue:

As explained in the Appendix on Reasons common to several requests your adaptation is rejected.

On this basis, the information requirement is not fulfilled.

In the comments to the initial draft decision, you agree to perform the requested study.

Study design

OECD TG 211 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 A, section 1.

2. 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 the following information:

i. a justification to omit the study based on Annex IX, Section 9.1., Column 2. In support of your adaptation, you provided the following justification: "In *Annex IX of Regulation (EC) No 1907/2006, it is laid down that long-term toxicity testing shall be proposed by the registrant if the chemical safety assessment indicates the need to investigate further the effects on aquatic organisms. According to Annex I of this regulation, the chemical safety assessment triggers further action when the substance or the preparation meets the criteria for classification as dangerous according to Directive 67/548/EEC or Directive 1999/45/EC or is assessed to be a PBT or vPvB. The hazard assessment of Octene, hydroformylation products, high boiling reveals neither a need to classify the substance as dangerous for the environment, nor is it a PBT or vPvB substance.*"

We have assessed this information and identified the following issue:

As explained in the Appendix on Reasons common to several requests your adaptation is rejected.

On this basis, the information requirement is not fulfilled.

In the comments to the initial draft decision, you agree to perform the requested study.

In addition, you indicate you have started to perform a new water solubility (OECD TG 105) and Partition coefficient (OECD TG 117). You also outline your intention to update the dossier. 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.

Study design

To fulfil the 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 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 A, section 1.

3. 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:

- an adaptation under Annex IX, Section 9.2., Column 2 with the following justification: "*the study does not need to be conducted because the substance is readily biodegradable* ".

We have assessed this information and identified the following issue:

As explained in the Appendix on Reasons common to several requests your adaption is rejected.

In your comments to the initial draft decision, ECHA understands that you propose:

1. An adaptation under Annex XI, Section 2 specifies the general rules for adapting the standard information requirement when testing is not technically possible.
2. An adaptation under Annex XI, Section 1.2. specifies the general rules for adapting the standard information requirement when testing does not appear scientifically necessary – weight of evidence.

We have assessed this information and identified the following issues:

As explained in Sections 4 and 5 of the Appendix on Reasons common to several requests your adaptions are rejected.

On this basis, the information requirement is not fulfilled.

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.).

4. Soil simulation testing

Soil simulation testing is an information requirement under Annex IX to REACH (Section 9.2.1.3.) for substances with a high potential for adsorption to soil.

You have provided the following information:

- an adaptation under Annex IX, Section 9.2., Column 2 with the following justification: "*the study does not need to be conducted because the substance is readily biodegradable* ".

We have assessed this information and identified the following issues:

As explained in the Appendix on Reasons common to several requests your adaption is rejected.

Furthermore, based on the information in the registration dossier log Koc of most of constituents of the Substance is above 5.63, indicating high potential to adsorb to soil.

On this basis, the information requirement is not fulfilled.

In your comments to the initial draft decision, ECHA understands that you propose:

1. An adaptation under Annex XI, Section 2 specifies the general rules for adapting the standard information requirement when testing is not technically possible.
2. An adaptation under Annex XI, Section 1.2. specifies the general rules for adapting the standard information requirement when testing does not appear scientifically necessary – weight of evidence.

Your comments on the initial draft decision for this endpoint have been addressed under Appendix C, Section 3.

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.

In accordance with the specifications of OECD TG 307, you must perform the 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).

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.

In accordance with the specifications of OECD TG 307, 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; ECHA Guidance R.11.4.1.).

5. Sediment simulation testing

Sediment simulation testing is an information requirement under Annex IX to REACH (Section 9.2.1.4.) for substances with a high potential for adsorption to sediment.

You have provided the following information:

- an adaptation under Annex IX, Section 9.2., Column 2 with the following justification: "*the study does not need to be conducted because the substance is readily biodegradable* ".

We have assessed this information and identified the following issues:

As explained in the Appendix on Reasons common to several requests your adaption is rejected.

Furthermore, based on the information in the registration dossier log Koc of most of constituents of the Substance is above 5.63, indicating high potential to adsorb to sediment.

On this basis, the information requirement is not fulfilled.

In your comments to the initial draft decision, ECHA understands that you propose:

1. An adaptation under Annex XI, Section 2 specifies the general rules for adapting the standard information requirement when testing is not technically possible.
2. An adaptation under Annex XI, Section 1.2. specifies the general rules for adapting the standard information requirement when testing does not appear scientifically necessary – weight of evidence.

Your comments on the initial draft decision for this endpoint have been addressed under Appendix C, Section 3.

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.

In accordance with the specifications of OECD TG 308, you must perform the 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 308.

In accordance with the specifications of 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 308; ECHA Guidance R.11.4.1.).

6. Identification of degradation products

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

You have provided no information on the identity of transformation/degradation products for the Substance.

As explained in Appendix B, section 2, it is not possible to conclude whether the constituents of the Substance can be expected to be homogeneous in terms of their biodegradability. Any biodegradation observed in a ready biodegradability test performed with the Substance would not be sufficient to conclude that all the constituents of the Substance are readily biodegradable. Furthermore, the information available in the registration dossier indicates that the Substance is a potential PBT/vPvB substance.

Therefore, the CSA indicates the need for further degradation investigation.

On this basis, the information requirement is not fulfilled.

In your comments to the initial draft decision, ECHA understands that you propose:

1. An adaptation under Annex XI, Section 2 specifies the general rules for adapting the standard information requirement when testing is not technically possible.
2. An adaptation under Annex XI, Section 1.2. specifies the general rules for adapting the standard information requirement when testing does not appear scientifically necessary – weight of evidence.

Your comments on the initial draft decision for this endpoint have been addressed under Appendix C, Section 3.

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 Appendices B and C, sections 3-5 and 4-6 respectively 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.

To determine the degradation rate of the Substance, the requested study according to OECD TG 309 (Appendices B and C, sections 1 and 3 respectively) must be conducted at 12°C and at a test concentration < 100 µg/L. However, to overcome potential analytical limitations with the identification and quantification of major transformation/degradation products, you may consider running a parallel test at higher temperature (but within the frame provided by the test guideline, *e.g.* 20°C) and at higher application rate (*i.e.* > 100 µg/L).

To determine the degradation rate of the Substance, the requested studies according to OECD TG 308/307 (Appendices B and C, sections 2-3 and 4-5 respectively) must be conducted at 12°C and at a test material application rates reflecting realistic assumptions. However, to overcome potential analytical limitations with the identification and quantification of major transformation/degradation products, you may consider running a parallel test at higher temperature (but within the frame provided by the test guideline) and at higher application rate (*e.g.* 10 times).

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 data waiver: *"The test substance did not induce any adverse effects relevant for humans up to limit dose (1000 mg/kg//d) in a 90-day repeated dose toxicity study according to OECD 408, suggesting that the substance is of low toxicity. Taking into account Annex IX, section 8.7, column II, reproduction toxicity studies do not need to be performed if the substance possesses low toxicological activity as indicated by lacking toxicity in available tox studies. The substance did neither induce developmental defects in rats in an OECD 414 guideline study nor systemic effects relevant for humans in an OECD 408 repeated dose toxicity study. Hence, it can be concluded that the substance is of low toxicological concern with respect to systemic toxicity as well as with respect to development in particular. None of the so far performed tests indicates that the test substance is of potential toxicological concern. Consequently, with respect to Articel 25 of the REACh regulation, it seems unproportional to perform another animal study with the test substance as the risk for humans eminating from the test substance is virtually absent. Thus, due to animal welfare, another developmental toxicity study in a second species does not need to be performed to adequately control risk."*

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

According to Annex X, Section 8.7., Column 2, third indent, the study does not need to be conducted if the substance is of low toxicological activity. This needs to be demonstrated with three concomitant criteria, namely:

- that there is no evidence of toxicity seen in any of the tests available and
- that it can be proven from toxicokinetic data that no systemic absorption occurs via relevant routes of exposure and
- that there is no or no significant human exposure.

You justified the adaptation by stating that the Substance is of low toxicological activity. Although there is no evidence of toxicity in the available studies (OECD TG 408, OECD TG 414), you have not provided any toxicokinetic data to support your claim on no systemic absorption.

Furthermore, the substance has widespread uses by professional workers (e.g. industrial spraying (PROC 7), roller application or brushing (PROC 10), treatment of articles by dipping and pouring (PROC 13), use as fuels (PROC 16).

Therefore, you have not demonstrated fulfilment of the three concomitant criteria provided above.

Thus, your adaptation is rejected and the information requirement is not fulfilled.

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

In your comments on the initial draft decision you agree to perform the requested study.

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 species. The test in the first species was carried out by using a rodent species

(rat). Therefore, a PNDT study in a second species must be performed in the rabbit as preferred non-rodent species.

The study shall be performed with oral[3] administration of the Substance.

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

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[4].

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[5].

[4] https://echa.europa.eu/practical-guides
[5] https://echa.europa.eu/manuals

Appendix F: 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 and potential alternative testing strategies. 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. When determining the sequence of 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 G: 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 12 August 2020.

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

ECHA took into account your comments and did not amend the request(s). The deadline to provide the requested information was amended to 30 months for all requests, to align with other decisions for related substances.

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 H: List of references - ECHA Guidance[6] 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)[7]

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

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[8]
Guidance Document on aqueous–phase aquatic toxicity testing of difficult test chemicals – No 23, referred to as OECD GD 23.

[6] https://echa.europa.eu/guidance-documents/guidance-on-information-requirements-and-chemical-safety-assessment
[7] https://echa.europa.eu/support/registration/how-to-avoid-unnecessary-testing-on-animals/grouping-of-substances-and-read-across
[8] http://www.oecd.org/chemicalsafety/testing/series-testing-assessment-publications-number.htm

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 I: 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.

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.