~~Confidential~~

Helsinki, 3 November 2022

Addressees
Registrant(s) of 101_JS_16DCH as listed in Appendix 3 of this decision

Date of submission of the dossier subject to this decision
26/03/2020

Registered substance subject to this decision ("the Substance")
Substance name: 1,6-dichlorohexane
EC number: 218-491-7

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

DECISION ON A COMPLIANCE CHECK

Under Article 41 of Regulation (EC) No 1907/2006 (REACH), you must submit the information listed below, by the deadline of ***8 August 2025***.

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

Information required from 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).

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

2. Short-term toxicity testing on fish (Annex VIII, Section 9.1.3.; test method: EU C.1./OECD TG 203).

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

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

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

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

6. Long-term toxicity testing on fish (Annex IX, Section 9.1.6.; test method: EU C.47./OECD TG 210);

7. 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;

8. Identification of degradation products (Annex IX, 9.2.3.; test method: EU C.25./OECD TG 309

The reasons for the decision(s) are explained in Appendix 1.

Information required depends on your tonnage band

You must provide the information listed above for all REACH Annexes applicable to you in accordance with Articles 10(a) and 12(1) of REACH. The addressees of the decision and their corresponding information requirements based on registered tonnage band are listed in Appendix 3.

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

How to comply with your information requirements

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

You must follow the general requirements for testing and reporting new tests under REACH, see Appendix 4.

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

Appendix 1: Reasons for the decision
Appendix 2: Procedure
Appendix 3: Addressees of the decision and their individual information requirements
Appendix 4: Conducting and reporting new tests under REACH

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

Appendix 1: Reasons for the decision

Contents

Reasons common to several requests

0.1. Adaptation according to Annex XI, Section 3.2 (b)

1 You have sought to adapt the standard information requirements according to Annex XI, Section 3.2 (b) Substance-tailored exposure-driven testing for the following endpoints:

- Sub-chronic toxicity study (90-day), (Annex IX, Section 8.6.2.)
- Pre-natal developmental toxicity study (Annex IX, Section 8.7.2.)

2 You have provided an adaptation in Section 7.5.1 and 7.8.2 of your dossier, and you conclude that "According to REGULATION (EC) No 1907/2006, Annex IX, testing for sub-chronic toxicity (IUCLID section 7.5) and reprotoxicity (IUCLID section 7.8) may be omitted, if relevant human exposure can be excluded in accordance with Annex XI section 3.

3 Furthermore and in accordance with section 3.2 (b) of Annex XI (as amended by Regulation 134/2009), testing for sub-chronic toxicity and for reproductive toxicity can be omitted when the substance is not incorporated in an article and the manufacturer can demonstrate and document for all relevant scenarios that throughout the life cycle strictly controlled as well as rigorously contained conditions as set out in Article 18(4)(a) to (f) (Regulation 1907/2006) apply.

4 Life-cycle stage(s) covered: 1. Manufacture of substance (PROCs 1, 2, 3, 8b, 9, 15) 2. Use as Monomer in Polymerisation reactions (PROCs 1, 2, 3, 8b, 9, 15) 3. Use as Intermediate (PROCs 1, 2, 3, 8b, 9, 15)."

5 ECHA has evaluated your adaptation under the rules set in Annex XI, Section 3 Substance-tailored exposure-driven testing and specifically Section 3.2 (b), and identified the following issues.

6 As stated in Annex XI, Section 3, testing in accordance with Sections 8.6 and 8.7 of Annex VIII and in accordance with Annexes IX and X may be omitted based on the exposure scenario(s) developed in the CSR, by providing an adequate and scientifically-supported justification based on a thorough and rigorous exposure assessment in accordance with Section 5 of Annex I and by communicating the specific conditions of use through the supply chain. Any one of the following criteria 3.2.(a), (b) or (c) shall be met. In particular:

7 (b) where the substance is not incorporated in an article the manufacturer or the importer demonstrates and documents for all relevant scenarios that throughout the life cycle strictly controlled conditions as set out in Art 18(4)(a) to (f) apply;

8 In accordance with REACH Annex XI Section 3.2 (b) the demonstration and documentation of the strictly controlled conditions (SCC) for all relevant scenarios should be set out according to Article 18 (4) (a) to (f). In order to demonstrate that strictly controlled conditions are met, the registrants are required to provide a detailed description of all activities for each processing step throughout the whole life cycle of the substance according to ECHA Guidance on Intermediates (Version 2 December 2010) and to the corresponding practical guide (Practical Guide 16, June 2014).

9 In your dossier you have provided the following justification for the adaptation: "Rigorous containment measures: The substance is manufactured and used under strictly controlled conditions over the entire lifecycle. Exposure is limited to occasional sampling tasks for quality control, as well as to charging and discharging processes. Transport, storage tanks, reactors, processing equipment, and feeds operate in fully closed systems. Procedural and control technologies are used to minimise residual emissions/exposure as well as qualitative risk considerations: Operational and technical conditions and measures affecting and controlling workers exposure, such as local exhaust ventilation as well as personal

protective equipment, such as chemically resistant gloves where potential exposure may occur as reported in the CSR are followed (see CSR chapters 9 & 10)."

10 You have provided the description of SCC under different toxicological endpoints and in an additional document for the manufacture and for the use of the Substance. The description of SCC follows Art 18(4) for different exposure scenarios (ESs), however, it is at a general level.

11 In the additional document for SCC you have stated that measurements of vapour exposure at the workplace are performed periodically, however, no information on residual emission concentration in air is included in the dossier.

12 Instead of providing measured data, you have provided an exposure assessment performed with a tier 1 exposure modelling tool (Easy TRA). You have identified three uses for the Substance, and you have created ESs and exposure estimates in the CSR. The estimated exposure levels range from [redacted] mg/m^3 for PROCs 8b, 9 and 15.

13 Also, you have stated that residual product is removed from the waste-water streams, however, a rough quantification of waste as presented in your dossier demonstrates that organic residuals are formed in very low amounts, < 3%.

14 ECHA notes that you have provided only a generic level description for applied SCC and no information that would confirm strictly controlled conditions.

15 You have measured periodically vapour exposure, but you have not provided any data on the measured air concentrations. Measured exposure data is a useful element to demonstrate that rigorous containment is achieved. Instead, you have estimated exposure levels with a 1st tier exposure model which is showing exposure levels ranging from [redacted] mg/m^3 for the Substance.

16 For justifying the SCC the air concentrations of the substance are expected to be at or below the limits of detection of the method, and this is not achieved here. You have also provided a rough estimation of organic residuals in the waste water which does not describe if strictly controlled conditions are applied.

17 ECHA also notes that there is no documentation of how the Substance transforms to another substance and you have not considered the presence of and exposure to unreacted (unbound) monomer which may remain in the polymer, i.e. the quantities of the monomer substance which did not react during the polymerisation reaction and remained in the composition of the polymer.

18 If you use exposure-based adaptation according to Section 3 of Annex XI, you must demonstrate that the Substance does not pose any risk to human health or the environment at any stage. Therefore, you must demonstrate that there are no unreacted monomers in polymer and that the polymer does not degrade to monomers under use or waste stage. In this respect, you are referred to the ECHA Guidance for monomers and polymers (April 2012, Version 2.0), in particular Sections 2.2, 3.2.1 and 4.2, and the decision of Board of Appeal for A-001-2020 (Section 2 Second plea, particularly paragraphs 109 and 110).

19 Due to the aspects above, you have not demonstrated and documented that strictly controlled conditions as per Annex XI, section 3.2(b) are applied and therefore criterion 3.2(b) for exposure-based adaptation is not satisfied.

20 The adaptations you provided are not in line with the conditions specified in Annex XI, Section 3.2 (b) and therefore are rejected.

21 In the comments to the draft decision one registrant states that its Substance in its co-polymerised form is intended to be used only in cosmetics and any exposure to workers, if any, would be minimised to the point of being negligible due to strictly controlled conditions.

22 In addition, the registrant provided in its comments additional descriptions of the strictly controlled conditions.

23 Therefore, it considers that the testing for the human health endpoints can be adapted due to the animal testing ban under the Cosmetic Regulation.

24 We have assessed this information and identified the following issues:

25 In general, testing for human health endpoints can be adapted if: 1.) the substance is used solely as a cosmetic ingredient; and at the same time 2.) strictly controlled conditions are met and worker exposure can be excluded.

1. The Substance is not used as a cosmetic ingredient

26 ECHA notes that the commenting registrant indicates in the registration dossier that the Substance is also used as an intermediate. In the comments it specifies that the Substance is used to manufacture a cosmetic ingreadient (co-polymer).

27 However, intermediates as defined in REACH are not affected by the Cosmetics Regulation. Under the Cosmetics Regulation, "cosmetic product" means any 'substance' or 'mixture' intended to be placed in contact with the external parts of the human body.

28 Therefore, substances used to manufacture a cosmetic product but which are not found in the composition of the finished cosmetic product are not cosmetic products and are not affected by the ban on animal testing (referred to in Article 18 of the Cosmetics Regulation).

29 In conclusion, the Substance is not used as a cosmetic ingredient and there is no possibility for waiving on the basis that the Substance is used to manufacture a cosmetic ingredient. Therefore, the adaptation is rejected.

2. It has not beem demonstrated that strictly controlled conditions are met and worker exposure can be excluded.

30 In any event, ECHA notes that all the three exposure scenarios you have identified in your registration dossier should be performed under strictly controlled conditions throughout the life-cycle as set out in Art. 18(4) so that worker exposure can be excluded.

31 As explained above, in order to demonstrate that strictly controlled conditions are met, the registrants are required to provide a detailed description of all activities for each processing step throughout the whole life cycle of the substance according to ECHA Guidance on Intermediates (Version 2 December 2010) and to the corresponding practical guide (Practical Guide 16, June 2014).

32 As already explained above, you have not demonstrated and documented in your registration dossier that strictly controlled conditions apply.

33 In its comments, the commenting registrant has improved the description of the SCC for manufacturing and polymerisation.

34 However, the confirmation that SCC are fulfilled in all uses is not satisfactory. In particular, the commenting registrant has not demonstrated that there are no unreacted monomers in polymers and that the polymer does not degrade to monomers under the use or waste stage.

35 Hence, the workers exposure may occur.

36 Therefore, the adaptation is rejected.

Reasons related to the information under Annex VII of REACH

1. Growth inhibition study aquatic plants

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

1.1. Information provided

38 You have provided the following information:

- Studies on the Substance:
  (i) a study according to the OECD TG 201 (report no. [redacted], 2012)
  (ii) a study according to DIN-Draft 38412 part 12 (report no. [redacted], 1987)

1.2. Assessment of the information provided

39 We have assessed this information and identified the following issue:

1.2.1. The provided studies do not meet the information requirement

40 To fulfil the information requirement, a study must comply with the OECD TG 201 and the requirements of the OECD GD 23 if the substance is difficult to test (Article 13(3) of REACH). Therefore, the following specifications must be met:

41 Key parameter to be measured

a) the concentrations of the test material leading to a [redacted] % and [redacted]% (or [redacted]%) inhibition of growth at the end of the test are estimated. Growth must be expressed as the logarithmic increase in biomass (average specific growth rate) during the exposure period;

42 Technical specifications impacting the sensitivity/reliability of the test

b) the test duration is 72 hours. However, the test duration may be shortened to at least 48 hours as long as the biomass of control cultures increase by at least 16-fold;

43 Characterisation of exposure

c) the results can be based on nominal or measured initial concentration only if the concentration of the test material has been maintained within ±20 % of the nominal or measured initial concentration throughout the test. If the concentration of the test material has not been maintained within ±20 % of the nominal or measured initial concentration throughout the test, results must be based on the geometric mean of measured concentrations during exposure or on a model describing the decline of the concentration of the test material over the exposure period;
d) For volatile, unstable or strongly adsorbing test substances, additional samplings for analysis at 24 hour intervals is required;

44 Reporting of the methodology and results

e) the test design is reported (*e.g.*, number of replicates, number of test concentrations and geometric progression used);
f) the test conditions are reported (*e.g.*, composition of the test medium, test temperature, test species, biomass density at the beginning of the test);
g) the results of algal biomass determined in each flask at least daily during the test period are reported in a tabular form;
h) adequate information on the analytical method (including performance parameters

of the method) and on the results of the analytical determination of exposure concentrations is provided.

45 Your registration dossier provides two studies, study (i) and study (ii), showing the following:

46 Key parameter measured

a) in study (ii) the concentrations of the test material leading to a [redacted] % and [redacted] % inhibition of growth at the end of the test was not estimated. Instead you provide EC10, EC50 and EC90 values as a measure of inhibition of assimilation based on oxygen liberation.

47 Technical specifications impacting the sensitivity/reliability of the test

b) in study (ii) the test duration was 24 hours and no information is provided whether the biomass in the control culture increased by more than 16-fold during this time period.

48 Characterisation of exposure

c) in study (i) the concentrations of the test material were 0.100, 0.316, 1.00, 3.16, 10.0, 31.6 and 100 mg/L (nominal) and 0.0282, 0.0991, 0.319, 0.955, 3.24, 9.80, 27.5 mg/L (initial). No information on the results of analytically determined exposure concentrations at the end of the study, i.e. at 72 h, are provided and no information is provided on whether concentrations were within ± 20 % of nominal or measured initial concentration throughout the test. You have expressed the effect values based on initial measured concentration only. Therefore, it does not correspond to either the geometric mean of measured concentrations during exposure or a model describing the decline of the concentration of the test material over the exposure period.

d) In study (i), based on the nominal and the measured initial concentration, the data showed that between [redacted]% of the test item was lost in all tested concentrations and no additional sampling for analysis at 24 h interval was conducted.

49 Reporting of the methodology and results

e) in study (ii) you have not specified in the test design the number of replicates, controls, number of test concentrations;

f) in study (ii) on the test conditions, you have not specified the composition of the test medium, test temperature, biomass density at the beginning of the test;

g) in both studies tabulated data on the algal biomass determined daily for each treatment group and control are not reported;

h) in study (ii) on the analytical method adequate information, i.e. performance parameters of the method is not reported and the results of the analytically determined exposure concentrations are not provided

50 Based on the above, ECHA has the following observations:

51 Firstly, the Substance is difficult to test because exposure concentrations could not be achieved or maintained as indicated by the significant loss of test material i.e. up to [redacted] % from the nominal concentration compared to initial measurements reported in study (i). Such a loss can be caused by e.g. volatile, unstable or strongly adsorbing properties of the Substance and makes it necessary to follow requirements of the OECD GD 23. This observation is not affected by the issues related to the validity of the studies, as described below.

52 Secondly, there are the following issues affecting the validity of study (i) and study (ii):

- in study (i) there are critical methodological deficiencies resulting in the rejection

of the study results. More specifically, on the exposure characterisation, results of analytically determined concentrations at 72 hours are not reported and it cannot be determined whether concentrations were within ±20% of nominal or initial concentrations. You did not provide justification as to why effect concentrations can be indicated based on initial measured concentrations only. Consequently, we are not in the position to verify if the effect value provided is reliable. Further, the reporting of study(i) is not sufficient to conduct an independent assessment of its reliability since data on the algal biomass determined daily for each treatment group and control were not provided. Therefore, we cannot verify if the validity criteria were met.

- in study (ii) the key parameter of the OECD TG 201 is not covered and there are methodological deficiencies leading to the rejection of the study results, more specifically, the test duration was only 24 hours and you did not provide information that justifies an exposure duration of <72 hours. Further, the reporting of study (ii) is not sufficient to conduct an independent assessment of its reliability. More specifically, as you did not provide information on the test design, test conditions or on the analytical monitoring of exposure concentrations, we cannot verify if the study was performed according to the OECD TG 201 requirements. Further, no information on the algal biomass was provided so that an independent assessment on the validity and reliability of the study is not possible.

53 Therefore, the requirements of the OECD TG 201 are not met in both studies.

54 In the comments to the draft decision provided by a registrant, it provides for study (i) information on the measured concentrations at the end of the test showing that the exposure concentrations remained within +/- 20% of initial concentration and therefore confirming that the exposure concentration has been maintained throughout the test. ECHA acknowledges that based on this additional information in the comments, study (i) meets the information requirement.

55 However, as the information is currently not available in the registration dossier, the data gap remains.

56 The registrants may therefore consider submitting this information in an updated registration dossier by the deadline set out in the decision.

1.3. Study design and test specifications

57 The Substance is difficult to test as indicated by significant loss of test material i.e. up to [redacted] % from the nominal concentration compared to initial measurements in reported study (i). The OECD TG 201 specifies that, for difficult to test substances, you must consider the approach described in the 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 the OECD TG 201. In case a dose-response relationship cannot be established (no observed effects), you must demonstrate that the approach used to prepare test solutions was adequate to maximise the concentration of the Substance in the test solution.

Reasons related to the information under Annex VIII of REACH

2. Short-term toxicity testing on fish

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

2.1. Information provided

59 You have provided the following information:

- Studies on the Substance:
  (i) a study similar to OECD TG 203 (report no. [redacted], 1988)
  (ii) a study according to DIN 38412 part 15 (report no. [redacted], 1987)

2.2. Assessment of the information provided

60 We have assessed this information and identified the following issue:

2.2.1. The provided studies do not meet the information requirement

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

62 Characterisation of exposure

a) analytical monitoring must be conducted. 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;
b) the results can be based on nominal concentration only if the concentration of the test material has been maintained within ±20 % of the nominal concentration throughout the test. If the concentration of the test material has not been maintained within ±20 % of the nominal concentration throughout the test, results must be based on measured concentrations;

63 Technical specifications impacting the sensitivity/reliability of the test

c) the test duration is 96 hours or longer;
d) although not generally recommended, if a solvent is used, its concentration in the test water is below its critical micelle concentration (if relevant) and, in all cases, ≤ 100 mg/L (or 0.1 mL/L);
e) the test concentrations are below the limit of solubility of the test material in the dilution water.

64 Your registration dossier provides two studies, i.e. study (i) and study (ii), showing the following:

65 Characterisation of exposure

a) in study (i) no analytical measurement of test concentrations was conducted and in study (ii) analytical monitoring is not specified;
b) in study (i) and (ii) results are based on nominal concentrations and no evidence is provided that concentration of the test material has been maintained within ±20 % of the nominal concentration throughout the test;

66 Technical specifications impacting the sensitivity/reliability of the test

c) in study (ii) the test duration was 48 hours and thus less than 96 hours;
d) in study (ii) a solvent was used and its concentration in the test solutions was not specified;
e) in study (i) the test concentrations were 21.5, 46.4, 100.0, 215.0, 464.0 and 1000 mg/L and you report in your dossier a limit of solubility of the test material in water of 57 mg/L as well as the observation that "u*ndissolved, drop shaped test substance was visible during the test procedure";* in study (ii) the tested concentrations are not reported.

67 Based on the above,

- in study (i) there are critical methodological deficiencies resulting in the rejection of the results of the study. More specifically, in the absence of analytical monitoring, the stability of the exposure concentrations was not demonstrated throughout the test and it cannot be determined whether concentrations were within ±20% of nominal, consequently it is not possible to conclude on the reliability of the effect concentrations. Further, test concentrations framing the determined EC50 were above the solubility limit of the Substance. Testing above the limit of solubility of the test substance can impact bioavailability.
- in study (ii) there are critical methodological deficiencies resulting in the rejection of the results of study (ii). More specifically, exposure duration was less than 96 hours and results might thus be less sensitive than under longer exposure conditions. Furthermore, a solvent has been used at an unspecified concentration. The presence of a solvent in the test medium can influence bioavailability of the test material to the organism and thus bias hazard assessment. Further, no information on test solution preparation, tested concentrations or analytical monitoring is reported and stability of the tested concentrations throughout the test was not determined. Consequently, we are not in the position to assess the reliability of the provided effect value.

68 Therefore, the requirements of the OECD TG 203 are not met in both studies.

69 On this basis, the information requirement is not fulfilled.

70 In its comments to the draft decision a registrant indicates its intention to adapt this information requirement by using Annex XI Section 1.3 ((Q)SAR).

71 To this end it provides:

(i) a prediction using OECD QSAR Toolbox v4.4 with the Substance

(ii) a prediction using KATE2020 (version 2.0 with the Substance

72 We have assessed this information and consider it appropriate to potentially fulfil this information requirement.

73 However, as the information is currently not available in your registration dossier, the data gap remains.

74 The registrants may therefore consider submitting this information in an updated registration dossier by the deadline set out in the decision.

2.3. Study design and test specifications

75 The OECD TG 203 specifies that, for difficult to test substances, the 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 request 1.

Reasons related to the information under Annex IX of REACH

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

76 A sub-chronic toxicity study (90 day) is an information requirement under Annex IX to REACH (Section 8.6.2.).

3.1. Information provided

77 You have adapted this information requirement by using substance-tailored exposure-driven testing according to Annex XI, Section 3.2(b).

78 In addition, you have provided following studies in your dossier:

(i) Reproduction/Developmental Toxicity Screening Test (2012) with the Substance.

(ii) 14-Day dose-range finding study (2012) with the Substance

3.2. Assessment of the information provided

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

3.2.1. Adaptation according to substance-tailored exposure-driven testing fails

80 As explained in Reasons common to several requests section, the adaptation according to Annex XI, Section 3.2 is rejected.

3.2.2. Studies not adequate for the information requirement

81 (Eco)toxicological studies must comply with a recognised test method (Art. 13(3) of REACH), in this case OECD TG 408. Such study must cover the key parameters of the corresponding OECD test guideline (Art. 13(3) of REACH). Therefore, the following specifications must be met:

a. an exposure duration of at least 90 days;
b. examinations such as functional observations; haematology and clinical biochemistry; as well as gross pathology and histopathology of the organs, listed in the OECD TG 408, at the end of the study.

82 The study (i) is described as "Reproduction/Developmental Toxicity Screening Test" (OECD TG 421). This study has been conducted using the OECD TG 421 which primarly investigates reproductive organs and tissues rather than sub-chronic systemic toxicity. In any case, that study does not cover the key parameters of the OECD TG 408 such as:

a. an exposure duration of at least 90 days: in the study males were exposed for 35 days and females for 59 days;
b. examinations: the study does not cover haematology and clinical biochemistry; or gross pathology and histopathology (with the exception of reproductive organs).

83 The study (ii) is described as a "14-Day dose-range finding study". This study does not follow any test guideline. In any case, that study does not cover the key parameters of the OECD TG 408 such as:

a. an exposure duration of at least 90 days: in the study animals were exposed for 14 days
b. the study does not cover haematology and clinical biochemistry; or

histopathology.

84 Therefore, the studies are rejected.

85 On this basis, the information requirement is not fulfilled.

86 In its comments to the draft decision a registrant states that the Substance in its co-polymerised form is intended to be used only in cosmetics and any exposure to workers, if any, would be minimised to the point of being negligible due to strictly controlled conditions.

87 In addition, it provided in its comments additional descriptions of the strictly controlled conditions.

88 Therefore, it considers that the testing for the human health endpoints can be adapted due to the animal testing ban under the Cosmetic Regulation.

89 As explained in the Reasons common to several requests, the adaptation is rejected.

3.3. Specification of the study design

90 Following the criteria provided in Annex IX, Section 8.6.2, Column 2, the oral route is the most appropriate route of administration to investigate repeated dose toxicity of the Substance; Guidance on IRs and CSA, Section R.7.5.6.3.2.

91 According to the OECD TG 408, the rat is the preferred species.

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

4. Pre-natal developmental toxicity study in one species

93 A pre-natal developmental toxicity (PNDT) study (OECD TG 414) in one species is an information requirement under Annex IX to REACH (Section 8.7.2.).

4.1. Information provided

94 You have adapted this information requirement by using substance-tailored exposure-driven testing according to Annex XI, Section 3.2.

4.2. Assessment of the information provided

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

4.2.1. Adaptation according to substance-tailored exposure-driven testing fails

96 As explained in Reasons common to several requests section, the adaptation according to Annex XI, Section 3.2 is rejected. On this basis, the information requirement is not fulfilled.

97 In its comments to the draft decision a registrant states that the Substance in its co-polymerised form is intended to be used only in cosmetics and any exposure to workers, if any, would be minimised to the point of being negligible due to strictly controlled conditions.

98 In addition, it provided in its comments additional descriptions of the strictly controlled conditions.

99 Therefore, it considers that the testing for the human health endpoints can be adapted due to the animal testing ban under the Cosmetic Regulation.

100 As explained in the Reasons common to several requests, the adaptation is rejected.

4.3. Specification of the study design

101 A PNDT study according to the test method OECD TG 414 should be performed in rat or rabbit as preferred species.

102 The study shall be performed with oral administration of the Substance (Guidance on IRs and CSA, Section R.7.6.2.3.2.).

103 Therefore, the study must be conducted in rats or rabbits with oral administration of the Substance.

5. Long-term toxicity testing on aquatic invertebrates

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

5.1. Information provided

105 You have provided a justification to omit the study which you consider to be based on Annex IX, Section 9.1., Column 2. In support of your adaptation, you provided the following justification:

106 "In accordance with column 2 of REACH annex IX, a long-term toxicity to aquatic invertebrates test (required in section 9.1.5) is not necessary as the chemical safety assessment according to Annex I does not indicate the need to investigate further the effects on aquatic organisms. The RCRs were well below 1. The substance is manufactured and handled in the closed system. Thus, exposure of the aquatic compartment is unlikely. Furthermore, in the biodegradation test (see section 5.2.1), the substance 1,6-Dichlorohexane is classified as not readily biodegradable in the 10-d-window and after 61 days according to OECD guideline no. 310. However, the biodegradation of the test item came to 54 % after 61 days showing biodegradation with longer exposure times. Thus, long-term exposure of the environment is expected low due to the biodegradation of the substance. Further long-term testing with daphnia would consequently not improve the risk assessment. Thus, in conclusion, further long-term testing with daphnia is not required."

5.2. Assessment of the information provided

107 We have assessed this information and identified the following issue:

5.2.1. Annex IX, Section 9.1., Column 2 is not a valid basis to omit the study

108 Annex IX, Section 9.1., Column 2 does not allow omitting the need to submit information on long-term toxicity to aquatic invertebrates 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).

109 Your adaptation is therefore rejected.

110 On this basis, the information requirement is not fulfilled.

111 In its comments to the draft decision a registrant indicates its intention to adapt this information requirement by using Annex XI Section 1.3 ((Q)SAR).

112 To this end it provides:

(i) a prediction using OECD QSAR Toolbox v4.4 with the Substance
(ii) a prediction using KATE2020 (version 2.0 with the Substance

113 We have assessed this information and consider it appropriate to potentially fulfil this information requirement.

114 However, as the information is currently not available in the registration dossier, the data gap remains.

115 The registrants may therefore consider submitting this information in an updated registration dossier by the deadline set out in the decision.

116 The OECD TG 211 specifies that, for difficult to test substances, the OECD GD 23 must be followed. As already explained above, the Substance is difficult to test.

117 Therefore, you must fulfil the requirements described in 'Study design' under request 1.

6. Long-term toxicity testing on fish

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

6.1. Information provided

119 You have provided a justification to omit the study which you consider to be based on Annex IX, Section 9.1., Column 2. In support of your adaptation, you provided the following justification:

120 "In accordance with column 2 of REACH annex IX, a long-term toxicity to fish test (required in section 9.1.6) is not necessary as the chemical safety assessment according to Annex I does not indicate the need to investigate further the effects on aquatic organisms. One long-term aquatic study (algae) is available. This specie is more sensitive to the test substance in acute tests than fish. The RCRs were well below 1. The substance is manufactured and handled in the closed system. Thus, exposure of the aquatic compartment is unlikely. Furthermore, in the biodegradation test (see section 5.2.1), the substance 1,6-Dichlorohexane is classified as not readily biodegradable in the 10-d-window and after 61 days according to OECD guideline no. 310. However, the biodegradation of the test item came to 54 % after 61 days showing biodegradation with longer exposure times. Thus, long-term exposure of the environment is expected low due to the biodegradation of the substance. Further long-term testing with fish would consequently not improve the risk assessment. Thus, in conclusion, also considering animal welfare reasons, further long-term testing with fish is not required."

6.2. Assessment of the information provided

121 We have assessed this information and identified the following issue:

6.2.1. Annex IX, Section 9.1., Column 2 is not a valid basis to omit the study

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

123 Your adaptation is therefore rejected.

124 On this basis, the information requirement is not fulfilled.

125 In their comments to the draft decision a registrant indicates its intention to adapt this information requirement by using Annex XI Section 1.3 ((Q)SAR).

126 To this end it provides:

(i) a prediction using OECD QSAR Toolbox v4.4 with the Substance
(ii) a prediction using KATE2020 (version 2.0 with the Substance

127 We have assessed this information and consider it appropriate to potentially fulfil this information requirement.

128 However, as the information is currently not available in the registration dossier, the data gap remains.

129 The registrants may therefore consider to submitting this information in an updated registration dossier by the deadline set out in the decision.

6.3. Study design and test specifications

130 To fulfil the information requirement for the Substance, the Fish, Early-life Stage Toxicity Test (test method OECD TG 210) is the most appropriate (Guidance on IRs and CSA, Section R.7.8.2.).

131 The OECD TG 210 specifies that, for difficult to test substances, the 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 request 1.

7. Simulation testing on ultimate degradation in surface water

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

7.1. Information provided

133 You have provided a justification to omit the study which you consider to be based on Annex IX, Section 9.2., Column 2. In support of your adaptation, you provided the following justification:

134 "In accordance with column 2 of REACH annex IX, further aquatic degradation testing (required in section 9.2.1.2) does not need to be conducted as the chemical safety assessment does not indicate a need for further investigation. Furthermore, in the biodegradation test (see section 5.2.1), the substance 1,6-Dichlorohexane is classified as not readily biodegradable in the 10-d-window and after 61 days according to OECD guideline no. 310. However, the biodegradation of the test item came to 54 % after 61 days showing biodegradation with longer exposure times. Thus, further tests on biodegradation will not improve the quality of the risk assessment."

7.2. Assessment of information provided

135 We have assessed this information and identified the following issue:

7.2.1. Annex IX, Section 9.1., Column 2 is not a valid basis to omit the study

136 Annex IX, Section 9.2., Column 2 provides that "further" biodegradation testing must be proposed if the chemical safety assessment according to Annex I indicates the need to investigate further the degradation of the substance and its degradation products. That provision allows a registrant to propose, or ECHA to require, biotic degradation testing not covered by the information on degradation listed under Annex IX, section 9.2., Column 1. Therefore, this provision cannot be used as a justification for omitting the submission of

information on simulation testing on ultimate degradation in surface water required under Annex IX, Section 9.2.1.2, Column 1.

137 Therefore, your adaption is rejected.

138 On this basis, the information requirement is not fulfilled.

139 In its comments to the draft decision a registrant indicates its intention to adapt this information requirement by using Annex XI Section 1.3 ((Q)SAR.

140 To this end it provides:

(i) a prediction using Catalogic 301C (v11.16; OASIS Catalogic v5.14.1.5) with the Substance

141 It concludes that the Substance is considered to be P but not vP.

142 We have assessed this information and identified the following issue:

7.2.2. (Q)SAR results are not sufficient to conclude on P/vP properties

143 Under Section 1.3., first paragraph, third indent of Annex XI to REACH, a study may be omitted if QSAR results are adequate for the purpose of classification and labelling and/or risk assessment, including PBT assessment. Results obtained from biodegradation (Q)SAR models are only regarded as screening information on P/vP properties (Annex XIII, Section 3.1.). As further explained in Guidance on IRs and CSA, Section R.11.4.1.1.4., such information is not considered sufficient on its own to conclude on non-persistence and must be supported by additional information (e.g. test data information, read-across).

144 Based on the QSAR results, the commenting registrant conclude that the Substance meets the P but not the vP criteria. It has not provided additional information to support this conclusion.

145 As explained above, the provided QSAR result alone does not provide a robust approach to conclude that the Substance does not meet the vP criteria and thus are not adequate for PBT assessment. Therefore, the adaptation is rejected.

7.3. Study design and test specifications

146 Simulation degradation studies must include two types of investigations (Guidance on IRs and CSA, Section 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.

147 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) (Guidance on IRs and CSA, Section R.11.4.1.1.3.).

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

149 As specified in Guidance on IRs and CSA, Section 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 material 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) (Guidance on IRs and CSA, Section 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.

150 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; Guidance on IRs and CSA, Section R.11.4.1.).

8. Identification of degradation products

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

8.1. Information provided

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

153 On this basis, the information requirement is not fulfilled.

154 In its comments to the draft decision a registrant indicates its intention to adapt this information requirement by using Annex XI Section 1.3 ((Q)SAR).

155 To this end it provides:

(i) a prediction using Catalogic 301C (v11.16; OASIS Catalogic v5.14.1.5) with the Substance

156 We have assessed this information and consider it appropriate to potentially fulfil this information requirement.

157 However, as the information is currently not available in the registration dossier, the data gap remains.

158 The registrants may therefore consider submitting this information in an updated registration dossier by the deadline set out in the decision.

8.2. Study design and test specifications

159 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 must obtain this information from the degradation study requested in request 7.

160 To determine the degradation rate of the Substance, the requested study according to OECD TG 309 (request 7) 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).

References

The following documents may have been cited in the decision.

Guidance on information requirements and chemical safety assessment (Guidance on IRs & CSA)

Chapter R.4 Evaluation of available information; ECHA (2011).
Chapter R.6 QSARs, read-across and grouping; ECHA (2008).
Appendix to Chapter R.6 for nanoforms; ECHA (2019).
Chapter R.7a Endpoint specific guidance, Sections R.7.1 – R.7.7; ECHA (2017).
Appendix to Chapter R.7a for nanomaterials; ECHA (2017).
Chapter R.7b Endpoint specific guidance, Sections R.7.8 – R.7.9; ECHA (2017).
Appendix to Chapter R.7b for nanomaterials; ECHA (2017).
Chapter R.7c Endpoint specific guidance, Sections R.7.10 – R.7.13; (ECHA 2017).
Appendix to Chapter R.7a for nanomaterials; ECHA (2017).
Appendix R.7.13-2 Environmental risk assessment for metals and metal compounds; ECHA (2008).
Chapter R.11 PBT/vPvB assessment; ECHA (2017).
Chapter R.16 Environmental exposure assessment; ECHA (2016).

Guidance on data-sharing; ECHA (2017).

All Guidance on REACH is available online: https://echa.europa.eu/guidance-documents/guidance-on-reach

Read-across assessment framework (RAAF)

RAAF, 2017 Read-across assessment framework (RAAF), ECHA (2017)
RAAF UVCB, 2017 Read-across assessment framework (RAAF) – considerations on multi- constituent substances and UVCBs), ECHA (2017).

The RAAF and related documents are available online:
https://echa.europa.eu/support/registration/how-to-avoid-unnecessary-testing-on-animals/grouping-of-substances-and-read-across

***OECD Guidance documents* (OECD GDs)**

OECD GD 23 Guidance document on aquatic toxicity testing of difficult substances and mixtures; No. 23 in the OECD series on testing and assessment, OECD (2019).
OECD GD 29 Guidance document on transformation/dissolution of metals and metal compounds in aqueous media; No. 29 in the OECD series on testing and assessment, OECD (2002).
OECD GD 150 Revised guidance document 150 on standardised test guidelines for evaluating chemicals for endocrine disruption; No. 150 in the OECD series on testing and assessment, OECD (2018).
OECD GD 151 Guidance document supporting OECD test guideline 443 on the extended one-generation reproductive toxicity test; No. 151 in the OECD series on testing and assessment, OECD (2013).

Appendix 2: 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 04 June 2021.

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

ECHA took into account the comments of one registrant and did not amend the requests.

In its comments on the draft decision, a registrant requested an extension of the deadline to provide information from 18 to 24 months from the date of adoption of the decision. It provided a valid statement from a laboratory to support the request.

The preliminary deadline of the decision (18 months) has been exceptionally extended by 12 months from the standard deadline granted by ECHA to take into account currently longer lead times in contract research organisations.
On this basis ECHA has extended the deadline to 30 months.

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.

ECHA notes that during the decision-making process one registrant addressed by this decision changed its registration to a lower tonnage band and provided data on the production volume for the preceding year (2021). However, that tonnage band change is not considered for this decision-making process as the data shows that within the preceding year the registrant was still operating at the higher tonnage band.

Appendix 3: Addressees of this decision and their corresponding information requirements

In accordance with Articles 10(a) and 12(1) of REACH, the information requirements for individual registrations are defined as follows:

- the information specified in Annex VII to REACH, for registration at 1-10 tonnes per year (tpa), or as a transported isolated intermediate in quantity above 1000 tpa;
- the information specified in Annexes VII and VIII to REACH, for registration at 10-100 tpa;
- the information specified in Annexes VII, VIII and IX to REACH, for registration at 100-1000 tpa;
- the information specified in Annexes VII to X to REACH, for registration at more than 1000 tpa.

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.

Appendix 4: Conducting and reporting new tests for REACH purposes

1. Requirements when conducting and reporting new tests for REACH purposes

1.1. 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[2].

1.2. 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[3].

[2] https://echa.europa.eu/practical-guides
[3] https://echa.europa.eu/manuals