~~Confidential~~

Helsinki, 26 May 2023

Addressees
Registrant(s) of MSC_500-070-7 as listed in Appendix 3 of this decision

Date of submission of the dossier subject to this decision
10/12/2021

Registered substance subject to this decision ("the Substance")
Substance name: 4,4'-isopropylidenedicyclohexanol, oligomeric reaction products with 1-chloro-2,3-epoxypropane
EC number: 500-070-7

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 ***31 August 2026***.

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

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 on 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

3. 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

4. Extended one-generation reproductive toxicity study (triggered by Annex IX, Section 8.7.3., column 1; test method: OECD TG 443) by oral route, in rats, specified as follows:
   - At least two weeks premating exposure duration for the parental (P0) generation;
   - The highest dose level in P0 animals must be determined based on clear evidence of an adverse effect on sexual function and fertility without severe suffering or deaths in P0 animals as specified further in Appendix 1, or follow the limit dose concept. The reporting of the study must provide the justification for the setting of the dose levels;
   - Cohort 1A (Reproductive toxicity);
   - Cohort 1B (Reproductive toxicity) with extension to mate the Cohort 1B animals to produce the F2 generation which shall be followed to weaning;
   - Cohorts 2A and 2B (Developmental neurotoxicity); and
   - Cohort 3 (Developmental immunotoxicity).

   You must report the study performed according to the above specifications. Any expansion of the study must be scientifically justified.

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

6. 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.

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

The reasons for the request(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 request(s)
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 request(s)

Contents

Reasons related to the information under Annex VII of REACH

1. Short-term toxicity testing on aquatic invertebrates

1 Short-term toxicity testing on aquatic invertebrates is an information requirement under Annex VII to REACH (Section 9.1.1.).

1.1. Information provided

2 You have provided:

(i) a short-term toxicity study on *daphnia magna* (2011) with the Substance.

1.2. Assessment of the information provided

1.2.1. The provided study does not meet the specifications of the test guideline(s)

3 To fulfil the information requirement, a study must comply with OECD TG 202 (Article 13(3) of REACH). Therefore, the following specifications must be met:

4 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 effect values can only be based on nominal or measured initial concentration if the concentration of the test material has been satisfactorily maintained within 20 % of the nominal or measured initial concentration throughout the test (see also Guidance on IRs and CSA, Section R.7.8.4.1);

5 In study (i):

6 Characterisation of exposure

a) no analytical monitoring of exposure was conducted

b) the reported effect values are based on nominal concentrations. However, no measured concentrations of the test material are available which could confirm that exposure concentrations were within ± 20 % of the nominal or measured initial concentration;

7 Based on the above,

- there are critical methodological deficiencies resulting in the rejection of the study results. In the absence of analytical monitoring it cannot be verified that exposure concentrations were maintained during the course of the study. Therefore, the reported effect values based on nominal concentrations are not reliable and may underestimate the hazard.

8 On this basis, the requirements of OECD TG 202 are not met.

9 Therefore, this information requirement is not fulfilled.

1.3. Study design and test specifications

10 The Substance is difficult to test due to the low water solubility (56.8 mg/L). 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.

11 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.

12 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 solution.

2. Growth inhibition study aquatic plants

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

2.1. Information provided

14 You have provided:

(i) growth inhibition study on algae (2011) with the Substance.

2.2. Assessment of the information provided

2.2.1. The provided study does not meet the specifications of the test guideline(s)

15 To fulfil the information requirement, a study must comply with OECD TG 201 (Article 13(3) of REACH). Therefore, the following specifications must be met:

16 Validity criteria

a) exponential growth in the control cultures is observed over the entire duration of the test;

b) the mean coefficient of variation for section-by-section specific growth rates (days 0-1, 1-2 and 2-3, for 72-hour tests) in the control cultures is ≤ 35%;

c) the coefficient of variation of average specific growth rates during the whole test period in replicate control cultures is ≤ 7% in tests with *Pseudokirchneriella subcapitata*;

17 Characterisation of exposure

d) analytical monitoring must be conducted. Alternatively, a justification why the analytical monitoring of exposure concentrations is not technically feasible must be provided;

e) 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;

18 Reporting of the methodology and results

f) the results of algal biomass determined in each flask at least daily during the test period are reported in a tabular form.

19 In study (i):

20 Validity criteria

a) no information is provided on exponential growth in the control cultures;

b) no information is provided on the mean coefficient of variation for section-by-section specific growth in the control cultures;

c) no information is provided on the coefficient of variation of average specific growth rates during the whole test period in replicate control cultures.

21 Characterisation of exposure

d) no analytical monitoring of exposure was conducted;

e) you express the effect values based on nominal concentrations. However, you provide no information to confirm that the concentrations of the test material were within ± 20 % of nominal or measured initial concentration throughout the test.

22 Reporting of the methodology and results

f) tabulated data on the algal biomass determined daily for each treatment group and control are not reported.

23 Based on the above:

- It cannot be confirmed that the validity criteria of the OECD TG 201 were met (a – c) because information on the growth rates in the control cultures are missing
- There are critical methodological deficiencies resulting in the rejection of the study results. In the absence of analytical monitoring (d and e) it cannot be verified that exposure concentrations were maintained during the course of the study. Therefore, the reported effect values based on nominal concentrations are not reliable and may underestimate the hazard.
- The reporting of the study is not sufficient to conduct an independent assessment of its reliability. In the absence of detailed tabulated data on the algal biomass (f) no conclusion on the validity of the conducted test can be made.

24 On this basis, the requirements of OECD TG 201 are not met.

25 Therefore, the information requirement is not fulfilled.

2.3. Study design and test specifications

26 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 and test specifications’ under request 1.

Reasons related to the information under Annex VIII of REACH

3. Short-term toxicity testing on fish

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

3.1. Information provided

28 You have provided:

(i) a short-term toxicity study on fish (2011) with the Substance;

3.2. Assessment of the information provided

3.2.1. The provided study does not meet the specifications of the test guideline(s)

29 To fulfil the information requirement, a study must comply with OECD TG 203 (Article 13(3) of REACH). Therefore, the following specifications must be met:

30 Characterisation of exposure

g) 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.

31 In study (i):

32 Characterisation of exposure

a) no analytical monitoring of exposure was conducted.

33 Based on the above,

- There are critical methodological deficiencies resulting in the rejection of the study results. In the absence of analytical monitoring (a) it cannot be verified that exposure concentrations were maintained during the course of the study. Therefore, the reported effect values based on nominal concentrations are not reliable and may underestimate the hazard.

34 On this basis, the requirements of OECD TG 203 are not met.

35 Therefore, the information requirement is not fulfilled.

3.3. Study design and test specifications

36 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 and test specifications' under request 1.

Reasons related to the information under Annex IX of REACH

4. Extended one-generation reproductive toxicity study

37 An extended one-generation reproductive toxicity (EOGRT) study (OECD TG 443) is an information requirement under Annex IX, Section 8.7.3., if the available repeated dose toxicity studies indicate adverse effects on reproductive organs or tissues or reveal other concerns in relation with reproductive toxicity. Furthermore column 2 defines the conditions under which the study design needs to be expanded.

4.1. Triggering of the information requirement

38 You claim that there are no results from available repeated dose toxicity studies that indicate adverse effects on reproductive organs or tissues, or reveal other concerns in relation with reproductive toxicity.

39 However, the sub-chronic toxicity study (2018) in your dossier indicates adverse effects on reproductive organs or tissues. Specifically, interstitial cell hypertrophy was present in the ovaries of all females at 600 mg/kg bw/day. In addition, vaginal mucification was reported in two females and atrophy of the vaginal epithelium in another one female at 600 mg/kg bw/day.

40 Therefore, the information requirement is triggered.

4.2. Information provided

41 You have not provided any source of information to fulfil this information requirement.

42 Therefore, this information requirement is not fulfilled.

4.3. Specification of the study design

4.3.1. Species and route selection

43 A study according to the test method OECD TG 443 must be performed in rats with oral administration of the Substance (Guidance on IRs and CSA, Section R.7.6.2.3.2.).

4.3.2. Pre-mating exposure duration

44 The length of pre-mating exposure period must be ten weeks to cover the full spermatogenesis and folliculogenesis before the mating, allowing meaningful assessment of the effects on fertility.

45 A two-week pre-mating exposure duration for P0 animals is sufficient for your Substance because the F1 animals of Cohort 1B are mated to produce the F2 generation and, thus, the premating exposure duration will be ten weeks for these Cohort 1B animals.

46 Therefore, the requested pre-mating exposure duration for the P0 animals is two weeks.

4.3.3. Dose-level setting

47 The aim of the requested test must be to demonstrate whether the classification criteria of the most severe hazard category for sexual function and fertility (Repr. 1B; H360F) and developmental toxicity (Repr. 1B; H360D) under the CLP Regulation apply for the Substance (OECD TG 443, paragraph 22; OECD GD 151, paragraph 28; Annex I Section 1.0.1. of

REACH and Recital 7, Regulation 2015/282), and whether the Substance meets the criteria for a Substance of very high concern regarding endocrine disruption according to Art.57(f) of REACH as well as supporting the identification of appropriate risk management measures in the chemical safety assessment.

48 To investigate the properties of the Substance for these purposes, the highest dose level must be set on the basis of clear evidence of an adverse effect on sexual function and fertility, but no deaths (i.e., no more than 10% mortality; Section 3.7.2.4.4 of Annex I to the CLP Regulation) or severe suffering such as persistent pain and distress (OECD GD 19, paragraph 18) in the P0 animals.

49 In case there are no clear evidence of an adverse effect on sexual function and fertility, the limit dose of at least 1000 mg/kg bw/day or the highest possible dose level not causing severe suffering or deaths in P0 must be used as the highest dose level. A descending sequence of dose levels should be selected to demonstrate any dose-related effect and aiming to establish the lowest dose level as a NOAEL.

50 In summary: Unless limited by the physical/chemical nature of the Substance, the highest dose level in P0 animals must be as follows:

(1) in case of clear evidence of an adverse effect on sexual function and fertility without severe suffering or deaths in P0 animals, the highest dose level in P0 animals must be determined based on such clear evidence, or

(2) in the absence of such clear evidence, the highest dose level in P0 animals must be set to be the highest possible dose not causing severe suffering or death, or

(3) if there is such clear evidence but the highest dose level set on that basis would cause severe suffering or death, the highest dose level in P0 animals must be set to be the highest possible dose not causing severe suffering or death, or

(4) the highest dose level in P0 animals must follow the limit dose concept.

51 You have to provide a justification with your study results demonstrating that the dose level selection meets the conditions described above.

52 Numerical results (i.e. incidences and magnitudes) and description of the severity of effects at all dose levels from the dose range-finding study/ies must be reported to facilitate the assessment of the dose level section and interpretation of the results of the main study.

4.3.4. Cohorts 1A and 1B

53 Cohorts 1A and 1B belong to the basic study design and must be included.

Splenic lymphocyte subpopulation analysis

54 Splenic lymphocyte subpopulation analysis must be conducted in Cohort 1A (OECD TG 443, paragraph 66; OECD GD 151, Annex Table 1.3).

Investigations of sexual maturation

55 To improve the ability to detect rare or low-incidence effects, all F1 animals must be maintained until sexual maturation to ensure that sufficient animals (3/sex/litter/dose) are available for evaluation of balano-preputial separation or vaginal patency (OECD GD 151, paragraph 12 in conjunction with OECD TG 443, paragraph 47). For statistical analyses, data on sexual maturation from all evaluated animals/sex/dose must be combined to maximise the statistical power of the study.

4.3.5. Extension of Cohort 1B

56 If the Column 2 conditions of 8.7.3. are met, Cohort 1B must be extended by mating the Cohort 1B animals to produce the F2 generation.

57 The extension is required, among others, if the use of the Substance is leading to significant exposure of consumers and professionals (column 2, first paragraph, point (a) of Section 8.7.3.) and there are indications of one or more relevant modes of action related to endocrine disruption from available in vivo studies or non-animal approaches (column 2, first paragraph, point (b), third indent of Section 8.7.3.).

58 The use of the Substance reported in the joint submission is leading to significant exposure of consumers and professionals because the Substance is used by professionals in various sectors such as agriculture and building and construction work (e.g. PROCs 2, 8a, 10, 11, 13, 19) and by consumers in adhesives, coatings, and paints, among others.

59 Furthermore, there are indications of one or more modes of action related to endocrine disruption because changes in organs/parameters sensitive to endocrine activity are observed in the available *in vivo* study. Specifically, the ovarian interstitial cell hypertrophy and vaginal mucification reported in the sub-chronic toxicity study (2018, report number RF18CC) are morphological responses associated with endocrine disruption related to estrogenic, androgenic and/or steroidogenic modalities.

60 For the reasons stated above, Cohort 1B must be extended.

61 Organs and tissues of Cohort 1B animals processed to block stage, including those of identified target organs, must be subjected to histopathological investigations (according to OECD TG 443, paragraph 67 and 72) because there is a concern for reproductive toxicity/endocrine activity indicated by the toxicity-triggers to extend the Cohort 1B.

62 The F2 generation must be followed to weaning allowing assessment of nursing and lactation of the F1 parents and postnatal development of F2 offspring. Investigations for F2 pups must be similar to those requested for F1 pups in OECD TG 443 and described in OECD GD 151.

4.3.6. Cohorts 2A and 2B

63 The developmental neurotoxicity Cohorts 2A and 2B must be conducted in case of a particular concern on (developmental) neurotoxicity.

64 The Substance itself shows sex-steroid hormone-related activity which is considered a specific mechanism(s)/mode(s) of action with an association to developmental neurotoxicity because in females at high dose, all animals showed minimal or mild interstitial cell hypertrophy in the ovaries, 2 animals showed mucification of the vagina and 1 animal showed atrophy of the epithelium of the vagina. According to OECD "Revised Guidance Document 150 on Standardised Test Guidelines for Evaluating Chemicals for Endocrine Disruption", histopathologic changes in the ovary and vagina are seen with agonism or antagonism of estrogen- and androgen-mediated activity. While it is not possible to distinguish between agonistic or antagonistic effects, nor between estrogen- or androgen-mediated activity, these data are diagnostic of a sex-steroid hormone related activity. There is an association for several model sex-steroid hormones (as set out in Guidance R.7a, Appendix R.7.6–2) and developmental neurotoxicity (DNT), and multiple substances with sex-steroid hormone-related activity and other activities also show an association to DNT. Thus sex-steroid hormone-related activity has an association with DNT.

65 In your comments, you disagreed with inclusion of Cohorts 2A and 2B, for the following reasons:

a) You consider that Cohorts 2A and 2B can only be proposed by the registrant. As there were no adverse effects in the neurological tissues in the OECD TG

408 study, you have not proposed these Cohorts to be included in the study design.

b) You consider that the reproductive effects could be related to general toxicity observed in liver and kidney, and/or a response to stress[2].

c) You state that "The [redacted] MCA goes on to say: No triggers for the inclusion of Cohorts 2A and 2B (developmental neurotoxicity) and Cohort 3 (developmental immunotoxicity) were identified."

66 Regarding a), ECHA notes that according to REACH Annex IX, Section 8.7.3, column 2, cohorts 2A/2B (developmental neurotoxicity) shall be proposed by the registrant or may be required by the Agency in case of a particular concern for developmental neurotoxicity.

67 Regarding b), in your comments you do not demonstrate that the ovarian and vaginal effects are a response to stress and/or general toxicity, rather than a sex-steroid hormone related activity. ECHA therefore refers to the reasons above on why the ovarian and vaginal effects are diagnostic of a sex-steroid hormone related activity which is considered a specific mechanism(s)/mode(s) of action with an association to developmental neurotoxicity.

68 Regarding c), ECHA clarifies that your quotation from the relevant proposal for amendment by the Member State Competent Authority relates to the text that it proposed to be deleted.

69 For the reasons stated above, the developmental neurotoxicity Cohorts 2A and 2B must be conducted.

4.3.7. Cohort 3

70 The developmental immunotoxicity Cohort 3 needs to be conducted in case of a particular concern on (developmental) immunotoxicity.

71 The Substance itself shows sex-steroid hormone-related activity which is considered a specific mechanism(s)/mode(s) of action with an association to developmental immunotoxicity because in females at high dose, all animals showed minimal or mild interstitial cell hypertrophy in the ovaries, 2 animals showed mucification of the vagina and 1 animal showed atrophy of the epithelium of the vagina. According to OECD "Revised Guidance Document 150 on Standardised Test Guidelines for Evaluating Chemicals for Endocrine Disruption", histopathologic changes in the ovary and vagina are seen with agonism or antagonism of estrogen- and androgen-mediated activity. While it is not possible to distinguish between agonistic or antagonistic effects, nor between estrogen- or androgen-mediated activity, these data are diagnostic of a sex-steroid hormone related activity. There is an association for several model sex-steroid hormones (as set out in Guidance R.7a, Appendix R.7.6–2) and developmental immunotoxicity (DIT), and multiple substances whith sex-steroid hormone-related activity and other activities also show an association to DIT. Thus sex-steroid hormone-related activity has an association with DIT.

72 In your comments, you disagree with inclusion of Cohort 3, for the following reasons:

a) You consider that Cohort 3 can only be proposed by the registrant. As there were no adverse effects in the immunological tissues in the OECD TG 408 study, you have not proposed this Cohort to be included in the study design.

b) You consider that the reproductive effects could be related to general toxicity observed in liver and kidney, and/or a response to stress[2].

[2] Everds NE, Snyder PW, Bailey KL, Bolon B, Creasy DM, Foley GL, Rosol TJ, Sellers T. Interpreting stress responses during routine toxicity studies: a review of the biology, impact, and assessment. Toxicol Pathol. 2013;41(4):560-614. doi: 10.1177/0192623312466452. Epub 2013 Mar 7. PMID: 23475558.

c) You state that "The [redacted] MCA goes on to say: No triggers for the inclusion of Cohorts 2A and 2B (developmental neurotoxicity) and Cohort 3 (developmental immunotoxicity) were identified."

73 Regarding a), ECHA notes that according to REACH Annex IX, Section 8.7.3, column 2, cohorts 3 (developmental immunotoxicity) shall be proposed by the registrant or may be required by the Agency in case of a particular concern for developmental immunotoxicity.

74 Regarding b), your comments do not demonstrate that the ovarian and vaginal effects are a response to stress and/or general toxicity, rather than a sex-steroid hormone related activity. ECHA therefore refers to the above reasons for why it considers that the ovarian and vaginal effects are diagnostic of a sex-steroid hormone related activity which is considered a specific mechanism(s)/mode(s) of action with an association to developmental immunotoxicity.

75 Regarding c), ECHA clarifies that your quotation from the relevant proposal for amendment by the Member State Competent Authority relates to the text that it proposed to be deleted.

76 For the reasons stated above, the developmental immunotoxicity Cohort 3 must be conducted.

5. Long-term toxicity testing on aquatic invertebrates

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

5.1. Information provided

78 You have adapted this information requirement by using Column 2 of Annex IX, Section 9.1. To support the adaptation, you have provided following information:

79 "In accordance with Column 2 of REACH, Annex IX the test (required in Section 9.1.5. Long-term toxicity testing on invertebrates) does not need to be conducted based on the findings of the Chemical Safety Assessment."

5.2. Assessment of the information provided

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

80 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).

81 Your adaptation is therefore rejected.

82 Therefore, the information requirement is not fulfilled.

5.3. Study design and test specifications

83 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 and test specifications' under request 1.

6. Simulation testing on ultimate degradation in surface water

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

6.1. Information provided

85 You have adapted this information requirement by using Column 2 of Annex IX, Section 9.2.1.2. To support the adaptation, you have provided following information:

86 "In accordance with Column 2 of REACH, Annex IX the test (required in Section 9.2.1.2.) does not need to be conducted based on the findings of the Chemical Safety Assessment indicating direct and indirect exposure of sediment is unlikely"

6.2. Assessment of the information provided

6.2.1. Annex IX, Section 9.2., Column 2 is not a valid basis to omit the study

87 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.

88 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.

89 Therefore, your adaption is rejected.

90 Therefore, the information requirement is not fulfilled.

6.3. Study design and test specifications

91 Simulation degradation studies must include two types of investigations (Guidance on IRs and CSA, Section R.7.9.4.1):

(2) a degradation pathway study where transformation/degradation products are quantified and, if relevant, are identified, and

(3) 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.

92 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.).

93 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.

94 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.

95 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.

96 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.).

97 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.

98 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.).

7. Identification of Degradation Products

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

100 You have not submitted any information for this requirement.

101 Therefore, the information requirement is not fulfilled.

7.1. Study design and test specifications

102 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 Kow and potential toxicity of the transformation/degradation may need to be investigated. You must obtain this information from the study requested in request 6.

103 To determine the degradation rate of the Substance, the requested study according to the OECD TG 309 (request 6) must be conducted at 12°C and at a test concentration < 100 µg/L.

104 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).
Guidance for monomers and polymers; ECHA (2012).
Guidance on intermediates; ECHA (2010).
All guidance documents are 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

The information requirement for long-term toxicity to fish (Annex IX, Section 9.1.6.) is not addressed in this decision. It may be addressed in a separate decision once the information from the studies requested in the present decision is provided.

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 01 February 2022.

The deadline of the decision is set based on standard practice for carrying out OECD TG tests. It 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.

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

ECHA did not receive any comments within the commenting period.

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

ECHA received proposal(s) for amendment and modified the draft decision.

ECHA invited you to comment on the proposed amendment(s) and referred the modified draft decision to the Member State Committee.

Your comments on the proposed amendment(s) were taken into account by the Member State Committee.

The Member State Committee unanimously agreed on the draft decision in its MSC-82 written procedure. ECHA adopted the decision under Article 51(6) of REACH.

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]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

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

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[3].

(4) Under the introductory part of Annexes VII/VIII/IX/X to REACH, where a test method offers flexibility in the study design, for example in relation to the choice of dose levels or concentrations, the chosen study design must ensure that the data generated are adequate for hazard identification and risk assessment.

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.

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

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[4].

2. General recommendations for conducting and reporting new tests

2.1. Environmental testing for substances containing multiple constituents

Your Substance contains multiple constituents and, as indicated in Guidance on IRs & CSA, 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.

References to Guidance on REACH and other supporting documents can be found in Appendix 1.

[4] https://echa.europa.eu/manuals