~~Confidential~~

Helsinki, 3 November 2022

Addressees
Registrant(s) of AAI_C18_PEHA_Amide as listed in Appendix 3 of this decision

Date of submission of the dossier subject to this decision
26/02/2013

Registered substance subject to this decision ("the Substance")
Substance name: Amides, fatty acids C18 unsat, reaction products with polyethylene amines
EC number: 629-735-0

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

DECISION ON A COMPLIANCE CHECK

Under Article 41 of Regulation (EC) No 1907/2006 (REACH), you must submit the information listed below, by the deadline of ***10 November 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 IX of REACH

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

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

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

0. Reasons common to several requests

0.1 Assessment of the read-across approach

1 You have adapted the following standard information requirements by using grouping and read-across approach under Annex XI, Section 1.5:

- Growth inhibition study aquatic plants (Annex VII, Section 9.1.2.)
- Long-term toxicity testing on aquatic invertebrates (Annex IX, Section 9.1.5.)

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

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

4 Additional information on what is necessary when justifying a read-across approach can be found in the Guidance on IRs and CSA, Chapter R.6. and related documents (RAAF, 2017; RAAF UVCB, 2017).

0.1.1 Scope of the grouping of substances (category)

5 You provide a read-across justification document in IUCLID Section 13.

6 For the purpose of this decision, the following abbreviations are used for the category members:

i. "FA reaction product with DETA"; Fatty acids, C18 unsaturated, reaction products with diethylenetriamine (EC No. 629-715-1, CAS No. 1226892-43-8);

ii. "FA reaction product with TETA"; Fatty acids, C18 unsaturated, reaction products with triethylenetetramine (EC No. 629-765-2, CAS No. 1226892-44-9);

iii. "FA reaction product with TEPA"; Fatty acids, C18 unsaturated, reaction products with tetraethylenepentamine (EC No. 629-725-6, CAS No. 1226892-45-0);

iv. "FA reaction with PEHA"; Fatty acids, C18 unsaturated, reaction products with pentaethylenehexamine (EC No. 629-732-4, CAS No. 1224966-13-5);

v. "FA reaction with PolyethyleneAmines"; Fatty acids, C18 unsaturated, reaction products with PolyethyleneAmines (EC No. 629-742-9, CAS No. 1226892-49-4);

vi. "Fatty acid amide reaction products with TEPA"; Amides, fatty acids C18 unsaturated, reaction products with tetraethylenepentamine (EC No. N/A, CAS No. 1225197-81-8);

vii. "Fatty acid amide reaction products with PolyethyleneAmines"; Amides, fatty acids C18 unsaturated, reaction products with polyethylene amine (EC No. 629-735-0, CAS No. 1226892-50-7).

7 You justify the grouping of the substances as: "The AAI meets the REACH chemical category definition as it considers a group of chemicals whose physico-chemical, human health and/or environmental properties are likely to be similar or follow a regular pattern as a

result of the structural similarity".

8 You define the applicability domain as: "This category covers the reaction mixes that result from the one step-reaction of a fatty acid source containing predominantly the mono-/di-/tri- unsaturated C18 fatty acids in varying ratios with a polyethyleneamine, i.e., DETA, TETA, TEPA, PEHA or PolyEA. The applicability domain is limited to those AAI UVCB substances containing >= 90% constituents of the structure types of fatty acid amidoamines, fatty acid imidazoline, di-substituted fatty acid amide, di-substituted fatty acid imidazoline, di-substituted fatty acid di-imidazoline and residual starting material (i.e., fatty acid, polyethyleneamine)."

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

0.1.2 Predictions for ecotoxicological properties

10 You provide a read-across justification document in IUCLID Section 13.

11 You predict the properties of the Substance from information obtained from the following source substance(s):

- tall oil, reaction products with TEPA (EC 271-417-5 / CAS 68555-22-6), for endpoints 'growth inhibition study aquatic plants' (Annex VII, Section 9.1.2.) and 'long-term toxicity testing on aquatic invertebrates' (Annex IX, Section 9.1.5.);
- 10 different source substances identified as "amidoamines" or "imidazolines" in a supporting study for endpoint 'growth inhibition study aquatic plants' (Annex VII, Section 9.1.2.)

12 You provide the following reasoning for the prediction of aquatic toxicity:

13 "In terms of aquatic toxicity (i.e., fish, daphnia, algae) and toxicity to micro- as well as macro-organisms, all AAI substances show comparable toxicity with the shorter chain AAIs being slightly a higher aquatic toxicity than the longer chain AAI substances (see Table 7). This has been demonstrated by evaluating the toxicity of AAI substances to aquatic algae. The respective ErC10 values ranged from 0.36 mg/L for substance 'FA + TEPA' to 2.32 mg/L for substance 'FAA + polyA'. This observation and the close relationship to AAI substances' physico-chemical properties and modes of action, justifies reading across ecotoxicological data generated on 'FA + DETA' and 'FA + TEPA' to the remaining AAI substances".

14 You explain in your read-across justification document that the substances belonging to this category are manufactured by reacting a fatty acid source with polyethyleneamines. This reaction results in a mixture of constituents, containing amine-, amide-, and imidazoline functional groups. Those constituents are characterised by a hydrophobic alkyl chain stemming from the fatty acids and a hydrophilic sub-structure stemming from the polyethyleneamine part which is bound to the fatty acid moiety via an amide bond.

15 In section 5.1.3 of your Chemical Safety Report (CSR), you further explain that the toxicity of those constituents is expected to be mainly related to the hydrophilic moiety and in particular to the varying chain length of the polyethylenamine starting material (i.e., DETA[2], TETA[3], TEPA[4], PEHA[5] or higher molecular polyethyleneamines). A mixture of polyethyleneamines of different lengths is generally used to manufacture the substances in this category.

16 The higher polyethyleneamines can be present in different isomer forms, linear, branched

[2] Diethylenetriamine
[3] Triethylenetetramine
[4] Tetraethylenepentamine
[5] Pentaethylenehexamine

and can also be found in a cyclic form.

17 The ratio between the fatty acid source and the polyethyleneamine as well as the reaction conditions determine the composition of the reaction product. When reacting with the fatty acid, the reaction can take place at one, two or multiple sites, depending on the amount of fatty acid used in the reaction. Reaction will preferably occur at primary amine sites, thus amidoamines (A) are formed. At higher reaction temperatures and under withdrawal of water, imidazolines (I) are formed. The amount of imidazoline formation is depending on the reaction conditions. When using polyethyleneamines with equal or more than 5 amine functions (i.e. TEPA, PEHA or higher molecular polyethyleneamines), di-substituted mono-imidazoline (AI) can further condensate to an di-substituted di-imidazoline (II).

18 You explain that the nature of those functional groups is expected to influence the chemical reactivity, the route of metabolism and the (eco)toxicity of the substances and their constituents.

19 ECHA understands that your read-across hypothesis assumes that different compounds have the same type of effects. You predict the properties of your Substance based on a worst-case approach.

20 We have identified the following issues with the prediction(s) of aquatic toxicity:

0.1.2.1 Missing supporting information to compare properties of the substances

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

22 Supporting information must include for example bridging studies of comparable design and duration for both the Substance and the source substances, or other information to confirm your claimed worst-case prediction.

23 As indicated above, your read-across hypothesis is based on the assumption that the structurally similar substances cause the same type of effect(s) and that source substances manufactured from polyethylenamines with shorter chains have a slightly higher aquatic toxicity than substances manufactured from polyethylenamines with longer chains. As such, you assume that source substances manufactured from polyethylenamines with shorter chains constitute a worst case for the prediction of the aquatic toxicity. In this context, relevant, reliable, and adequate information allowing to compare the properties of the category members is necessary to confirm a conservative prediction of the properties of the Substance from the data on other category members.

24 To substantiate your hypothesis, you mention a supporting, screening, study performed on algae with 10 different amidoamine or imidazoline test substances.

25 In addition, key studies for toxicity to algae and long-term toxicity to Daphnia magna are available for two source substances, i.e. 'fatty acids, C18 unsat, reaction products with DETA' (EC 629-715-1 / CAS 1226892-43-8) and 'tall oil, reaction products with TEPA' (EC 271-417-5 / CAS 68555-22-6). You explain that both algae and Daphnia seem to be slightly more sensitive to the first of those two source substances, i.e. with the substance manufactured from DETA, the polyethylenamine with the shorter chain.

26 According to the explanations you provide in your read-across justification document and in your CSR, the following considerations are important for assessing and comparing the aquatic toxicity of the different substances belonging to this category:

- the chain length of their polyethylenamine starting material (i.e., DETA, TETA, TEPA, PEHA, etc.),
- the potential presence of cyclic or branched forms for the higher polyethyleneamines,
- the nature of the functional groups present in the hydrophilic part of their constituents (A, I, AA, AI, II, etc.).

27 However, the results you have provided do not provide supporting information addressing those different considerations to confirm your claimed worst-case prediction:

- Regarding the chain length of their polyethylenamine starting material, you claim that substances manufactured from polyethylenamines with shorter chains have a slightly higher aquatic toxicity than substances manufactured from polyethylenamines with longer chains. However, some of the results from the screening study performed on algae with 10 different amidoamine or imidazoline test substances are not consistent with such a trend. For example, a ErC10 of 0.57 mg/L is reported for a substance manufactured from DETA, whereas a ErC10 of 0.36 mg/L is reported for a substance manufactured from TEPA, which contradicts your hypothesis and the results from other studies available for 'fatty acids, C18 unsat, reaction products with DETA' (EC 629-715-1 / CAS 1226892-43-8) and 'tall oil, reaction products with TEPA' (EC 271-417-5 / CAS 68555-22-6).
- You do not address or explain the potential impact of the presence of branched or cyclic isomers on the toxicity of the substances or of their constituents, even though these differences may result in different chemical reactivity and thus in different ecotoxicity. Based on its name and on the composition reported in your IUCLID dossier, the Substance is manufactured from various polyethylenepolyamines including higher polyethyleneamines (from DETA to NEDA[6] with potentially linear, cyclic or branched isomers). The source substance you propose to use for key studies for toxicity to algae and for long-term toxicity to Daphnia magna is manufactured from a short chain polyethyleneamine, i.e. TEPA, with more limited possibilities for forming branched or cyclic isomers than for the Substance.
- Finally, the available studies do not address how the proportion of the amidoamine and imidazoline groups in the molecules could impact the toxicity of the substances or of their constituents.

28 Furthermore, the studies you have provided for toxicity to algae and for long-term toxicity to Daphnia magna are considered to be not adequate, for the reasons explained in the following sections '0.1.4.2. Test material identity' and '0.1.4.3. Adequacy and reliability of source studies' and under the relevant information requirements in the Appendices below.

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

30 In the absence of such information, you have not established that the source substances constitute a worst-case for the prediction of aquatic toxicity for the Substance. Therefore, you have not provided sufficient supporting information to strengthen the rationale for the read-across.

31 In your comments to the draft decision, you agree that there is insufficient reliable data in the AAI category which can be used to predict aquatic toxicity of the Substance. You agree to perform the requested aquatic toxicity tests. You agree to update the justification for your read-across approach with the new data generated.

[6] Nonaethylenedecamine

0.1.2.2 Test material identity

32 Under Annex XI, Section 1.5., if the grouping concept is applied then in all cases the results to be read across must be adequate for the purpose of classification and labelling and/or risk assessment.

33 To predict the properties of the Substance, the test materials used in the studies on the source substances must be representative for the source substances (Article 10 and Recital 19 of REACH; Guidance on IRs and CSA, Section R.4.1.). Therefore, the unambiguous characterisation of the composition of the test materials used to generate the source data is required to assess whether the test materials are representative for the source substances.

34 However, the information on the composition of the test materials for the source data provided in your dossier is limited to a generic name of the UVCB substances and does not provide the chemical identity and the concentration range of its constituents. This issue concerns in particular the key studies for toxicity to algae and for long-term toxicity to Daphnia magna and the supporting study for toxicity to algae.

35 In the absence of the information on the composition of the test materials, you have not demonstrated that the test materials are representative for the source substances. Therefore, the studies used for your read-across approach are not adequate for the purpose of classification and labelling and/or risk assessment.

36 In your comments to the draft decision, you agree to review and update the information on the test materials.

0.1.2.3 Adequacy and reliability of source studies

37 According to Annex XI, Section 1.5., if the grouping concept is applied then in all cases the results to be read across must:

(1) be adequate for the purpose of classification and labelling and/or risk assessment;
(2) have adequate and reliable coverage of the key parameters addressed in the corresponding test method referred to in Article 13(3).

38 Specific reasons why the studies on the source substances do not meet these criteria are explained further below under the applicable information requirement:

- in section 1 in 'Reasons related to the information under Annex VII of REACH' for the studies provided to cover the information requirements for ‘growth inhibition study aquatic plants’ (Annex VII, Section 9.1.2.), and
- in section 4 in 'Reasons related to the information under Annex IX of REACH' for the studies provided to cover the information requirements for ‘long-term toxicity testing on aquatic invertebrates’ (Annex IX, Section 9.1.5.).

39 In your comments to the draft decision, you agree that results from the aquatic toxicity studies performed according to the bulk approach are less suitable for Classification and Labelling as they use a non-standard test medium. You agree to perform the requested aquatic toxicity tests.

0.1.3 Conclusion on the read-across approach

40 For the reasons above, you have not established that relevant properties of the Substance can be predicted from data on the source substance(s). Your read-across approach under Annex XI, Section 1.5. is rejected.

Reasons related to the information under Annex VII of REACH

1 Growth inhibition study aquatic plants

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

1.1 Information provided

42 You have provided an adaptation under Annex XI, Section 1.5. ('Grouping of substances and read-across'). In support of your adaptation, you provide the following information:

(i) a key study, according to test guideline OECD 201, with source substance tall oil, reaction products with TEPA (EC 271-417-5 / CAS 68555-22-6),
(ii) a supporting study, according to test guideline OECD 201, with 10 different source substances identified as "amidoamines" or "imidazolines" substances.

1.2 Assessment of the information provided

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

1.2.1 Read-across adaptation rejected

44 As explained in Section 0.1. in the 'Appendix on Reasons common to several requests', your adaptation based on grouping of substances and read-across approach under Annex XI, Section 1.5 is rejected.

1.2.2 Source studies are not adequate and reliable

45 As explained in Section 0.1. in the 'Appendix on Reasons common to several requests', the results to be read across must have an adequate and reliable coverage of the key parameters addressed in the corresponding test method referred to in Article 13(3), in this case OECD TG 201, and be adequate for the purpose of classification and labelling and/or risk assessment.

46 For the purpose of classification and labelling, as set out in part 4 of the CLP Regulation and in Section 1.1.3. of the Guidance on the Application of the CLP Criteria, the studies must provide information on hazards, i.e. on the basic properties of the Substance as determined in standard tests or by other means designed to identify hazards under standard conditions. Exposure and risk considerations are not taken into consideration for the purpose of classification and labelling.

47 Consequently, studies performed with modifications to the standard test conditions impacting exposure cannot be considered relevant to derive the hazards of the Substance.

48 Therefore, the following specifications and test conditions of OECD TG 201 must be met:

49 Technical specifications impacting the sensitivity/reliability of the test:

a) one of the two alternative growth media (i.e. the OECD or the AAP medium) is used. These growth media do not contain suspended particulate matter or dissolved organic matter. Any deviations from recommended test media must be described and justified;

50 Characterisation of exposure:

b) analytical monitoring must be conducted. The method used, including the description on how the test samples were prepared for the quantification of the test

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

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.

51 Your registration dossier provides two studies according to OECD TG 201 showing the following:

52 Technical specifications impacting the sensitivity/reliability of the test:

a) The key study (i) was performed with natural river water with a suspended matter concentration of 16.2 mg/L and a dissolved organic carbon (DOC) concentration of 3.9 mg/L. For the supporting study (ii), 2mg/L of DOC as humic acid was added to the standard OECD algae medium. As a justification for those deviations, you explain that the aquatic toxicity tests were performed using non-standard test media "*to allow a $PEC_{aquatic,bulk}$/$PNEC_{aquatic,bulk}$ approach.* […] *This approach is based on PEC estimations representing 'total aquatic concentrations'. To characterize the risk to the aquatic compartment the $PEC_{aquatic,bulk}$ is compared with the $PNEC_{aquatic,bulk}$ derived from river water ecotoxicity studies.* […] *For a valid bulk approach test the concentration-effect relationship should be based on the sum of adsorbed and dissolved substance in the volume of the medium tested. One of the advantages of the bulk approach tests with these difficult substances is that in the presence of suspended matter, humic acids and/or algae, the residual sorption to glassware will be negligible*".

53 Characterisation of exposure:

b) No analytical monitoring of exposure was conducted for the supporting study (ii) and you do not provide a justification for that deviation. For the key study (i), exposure concentrations were analytically determined. However, you do not provide information on the preparation of the test samples for the quantification analyses performed in the key study (i).

c) For both studies, you have expressed the effect values based on nominal concentrations. You indicate that, for the purpose of the so-called 'bulk-approach' the effect concentrations are defined as the sum of adsorbed as well as dissolved substance in the volume of the medium tested. For the key study (i), you further claim that "*the results of the chemical analyses show that the test organisms were fully exposed to the test substance during the test. Therefore, all effect values given are based on the nominal test item concentrations*".

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

a) You have not used standard test media and your justification is based on exposure or risk considerations

55 Both the key study (i) and the supporting study (ii) were conducted with non-standard test media, with a higher content of DOC or of suspended particulate matter than recommended by OECD 201.

56 Your justification for using these non-standard test media only considers the relevance of the studies for the risk assessment or a residual sorption to glassware for which you have not explained the relevance for the hazard assessment. However, such conditions impact exposure and thus are not relevant for deriving the hazards of the test substances to the aquatic organisms. As such, they are not adequate for the purpose of classification and labelling. Therefore, for both studies, the modifications of the test media are not acceptable.

b) Information on analytical monitoring is either absent or incomplete

57 No analytical monitoring of exposure was conducted for the supporting study (ii) and there is no justification provided for that deviation.

58 As for the key study (i), the information on the preparation of the test samples for the analyses is insufficient. In particular, there is no information on whether the measured concentrations reported for that study relate to the "total concentration" of the test substance in the test medium (i.e. freely available substance in the water phase + substance bound to the dissolved organic matter + substance adsorbed onto the suspended particulate matter), or to its "dissolved concentration" (i.e. freely available substance in the water phase + substance bound to the dissolved organic matter). The results of the chemical analyses suggest that the adsorption to the glassware is negligible, but they do not provide information on the quantity of the test substance adsorbed to the suspended particulate matter or bound to the dissolved organic matter.

c) You have reported results based on nominal concentrations but you have not demonstrated that the test concentrations remained within ±20 % of the nominal or measured initial concentration throughout the test

59 For both studies, you have expressed the effect values based on nominal concentrations.

60 As a justification, for the key study (i), you claim that "the results of the chemical analyses show that the test organisms were fully exposed to the test substance during the test". However, you provide no adequate information to justify your claim.

61 Standard aquatic toxicity tests are designed so that the test organisms are exposed to a test substance via the water phase and potential adsorption of the test substance is minimised. Only substance freely available in the water phase, i.e. not adsorbed to suspended particulate matter or to dissolved organic matter, is deemed to cause aquatic toxicity. A test substance adsorbed to suspended particulate matter or to dissolved organic matter may be inaccessible to the test organisms and may not cause toxicity to aquatic organisms.

62 All the substances in this category have a high potential for adsorption. For example, you report Kd values of 47000, 150000 and 19000 respectively for loamy sand, silt and clay soils for tall oil DETA imidazoline (EC 270-500-3 / CAS 68442-97-7), and Kd values of 44324, 165856 and 42721 respectively for loamy sand, silt and clay soils for tall-oil, reaction products with polyethylenepolyamines (EC 272-756-1 / CAS 68910-93-0). You estimate that 59% of the substance will be adsorbed if the concentration of suspended matter is 15 mg/L. Therefore, the test substance used in study (i), as well as the Substance or other source substances, are highly adsorptive and may tend to bind to any suspended particulate matter and/or dissolved organic matter present in the test medium. For the key study (i), and based on your calculations, the fraction of the test substance adsorbed can be expected to be above 59% of the nominal concentrations, i.e. well above the threshold of 20% mentioned in the test guideline.

63 As explained above, an unambiguous interpretation of the concentrations measured by the chemical analyses performed for the key study (i) is not possible. There is no indication that those measurements quantified the freely available substance in the water phase and they do not provide information on the quantity of the test substance adsorbed to the suspended particulate matter or bound to the dissolved organic matter. Therefore, your claim that "the results of the chemical analyses show that the test organisms were fully exposed to the test substance during the test" is not demonstrated.

d) Conclusion

64 The use of non-standard test media may have substantially lowered the actual exposure of the test organisms to the test substances. The information on analytical monitoring is either

absent or insufficient to demonstrate that the test concentrations remained within ±20 % of the nominal concentrations. However, considering the high adsorption potential of the substances in this category, the fraction of the test substances adsorbed can be predicted to be well above 20%. Therefore, effect values based on nominal concentrations may underestimate the hazards of the test substances.

1.3 Conclusion on the assessment of the information provided

65 Therefore, the studies submitted in your adaptation, as currently reported in your dossier, do not provide an adequate and reliable coverage of the key parameters of OECD TG 201 and are not adequate for the purpose of classification and labelling.

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

67 In your comments to the draft decision, you claim that the 'bulk-approach' could be appropriate for the risk assessment of the Substance. However, you also acknowledge that results from the aquatic toxicity studies performed according to the 'bulk-approach' are less suitable for Classification and Labelling as they use a non-standard test medium and do not allow the quantification of the intrinsic toxicity of the Substance. You agree to perform the requested test.

1.4 Study design and test specifications

68 As explained above, all the substances in this category have a high potential for adsorption. Furthermore, they are ionisable surface-active substances with surface tension values lower than 45 mN/m. Therefore, the Substance is difficult to test. OECD TG 201 specifies that, for difficult to test substances, you must consider the approach described in OECD GD 23 or other approaches, if more appropriate for your substance. In all cases, the approach selected must be justified and documented. Due to the properties of Substance, it may be difficult to achieve and maintain the desired exposure concentrations. Therefore, you must monitor the test concentration(s) of the Substance throughout the exposure duration and report the results. If it is not possible to demonstrate the stability of exposure concentrations (i.e. measured concentration(s) not within 80-120% of the nominal concentration(s)), you must express the effect concentration based on measured values as described in OECD TG 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.

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

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

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

Reasons related to the information under Annex IX of REACH

2 Long-term toxicity testing on aquatic invertebrates

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

2.1 Information provided

72 You have provided an adaptation under Annex XI, Section 1.5. ('Grouping of substances and read-across').

73 In support of your adaptation, you provide a key study according to OECD TG 211, with source substance tall oil, reaction products with TEPA (EC 271-417-5 / CAS 68555-22-6).

2.2 Assessment of the information provided

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

2.2.1 Read-across adaptation rejected

75 As explained in Section 0.1. in the 'Appendix on Reasons common to several requests', your adaptation based on grouping of substances and read-across approach under Annex XI, Section 1.5 is rejected.

2.2.2 Source studies are not adequate and reliable

76 As explained in Section 0.1. in the 'Appendix on Reasons common to several requests', the results to be read across must have an adequate and reliable coverage of the key parameters addressed in the corresponding test method referred to in Article 13(3), in this case OECD TG 211, and be adequate for the purpose of classification and labelling and/or risk assessment.

77 For the purpose of classification and labelling, as set out in part 4 of the CLP Regulation and in Section 1.1.3. of the Guidance on the Application of the CLP Criteria, the studies must provide information on hazards, i.e. on the basic properties of the Substance as determined in standard tests or by other means designed to identify hazards under standard conditions. Exposure and risk considerations are not taken into consideration for the purpose of classification and labelling.

78 Consequently, studies performed with modifications to the standard test conditions impacting exposure cannot be considered relevant to derive the hazards of the Substance.

79 Therefore, the following specifications and test conditions of OECD TG 211 must be met:

80 Technical specifications impacting the sensitivity/reliability of the test:

a) the test is conducted with a fully defined test medium, with a concentration of total organic carbon (TOC) ≤ 2 mg/L. Any deviation must be specified and clearly described;

81 Characterisation of exposure:

b) analytical monitoring must be conducted. The method used, including the description on how the test samples were prepared for the quantification of the test substance must be provided;

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.

82 Your registration dossier provides a study according to OECD TG 211 showing the following:

83 Technical specifications impacting the sensitivity/reliability of the test:

a) The study was performed with natural river water with a suspended matter concentration of 16.2 mg/L and a total organic carbon (TOC) concentration of 3.9 mg/L. As a justification for those deviations, you explain that the aquatic toxicity tests were performed using non-standard test media "*to allow a* $PEC_{aquatic,bulk}/PNEC_{aquatic,bulk}$ *approach.* […] *This approach is based on PEC estimations representing 'total aquatic concentrations'. To characterize the risk to the aquatic compartment the* $PEC_{aquatic,bulk}$ *is compared with the* $PNEC_{aquatic,bulk}$ *derived from river water ecotoxicity studies.* […] *For a valid bulk approach test the concentration-effect relationship should be based on the sum of adsorbed and dissolved substance in the volume of the medium tested. One of the advantages of the bulk approach tests with these difficult substances is that in the presence of suspended matter, humic acids and/or algae, the residual sorption to glassware will be negligible*".

84 Characterisation of exposure:

b) Exposure concentrations were analytically determined in this study. However, you do not provide information on the preparation of the test samples for the quantification analyses.

c) You have expressed the effect values based on nominal concentrations. You indicate that, for the purpose of the so-called 'bulk-approach' the effect concentrations are defined as the sum of adsorbed as well as dissolved substance in the volume of the medium tested. You further claim that "*the results of the chemical analyses show that the test organisms were fully exposed to the test substance during the test. Therefore, all effect values given are based on the nominal test item concentrations*".

85 Based on the above, there are critical methodological deficiencies resulting in the rejection of the study results. Those deficiencies are similar to those already addressed above in Section 1 for 'Growth inhibition study aquatic plants' in 'Reasons related to the information under Annex VII of REACH':

86 The study was conducted with a non-standard test medium containing suspended particulate matter and with a content of TOC exceeding the one recommended by OECD 211. Furthermore, you have expressed the effect values based on nominal concentrations. However, as already explained in Section 1 for 'Growth inhibition study aquatic plants', those deviations and your justifications for those deviations are not acceptable.

87 Therefore, the study submitted in your adaptation, as currently reported in your dossier, does not provide an adequate and reliable coverage of the key parameters of OECD TG 211 and is not adequate for the purpose of classification and labelling.

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

89 In your comments to the draft decision, you claim that the 'bulk-approach' could be appropriate for the risk assessment of the Substance. However, you also acknowledge that results from the aquatic toxicity studies performed according to the 'bulk-approach' are less suitable for Classification and Labelling as they use a non-standard test medium and do not allow the quantification of the intrinsic toxicity of the Substance. You agree to perform the requested test.

2.3 Study design and test specifications

90 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 Section 1 for 'Growth inhibition study aquatic plants'.

3 Long-term toxicity testing on fish

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

3.1 Information provided

92 You have provided the following justification to omit the study:

93 "The safety assessment according to Annex 1 does not indicate the need to investigate further the effects on aquatic organisms. Therefore no chronic fish testing is considered to be required".

3.2 Assessment of the information provided

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

3.2.1 Your justification to omit the study has no legal basis

95 A registrant may only adapt this information requirement based on the general rules set out in Annex XI. It is noted that Column 2 of Annex IX, Section 9.1, does not allow omitting the need to submit information on long-term toxicity to fish under Column 1 (Decision of the Board of Appeal in case A-011-2018).

96 Your justification to omit this information does not refer to any legal ground for adaptation under Annex XI to REACH.

97 Therefore, you have not demonstrated that this information can be omitted.

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

99 In your comments to the draft decision, you agree to perform the requested test.

3.3 Study design and test specifications

100 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.).

101 OECD TG 210 specifies that, for difficult to test substances, OECD GD 23 must be followed. As already explained above, the Substance is difficult to test. Therefore, you must fulfil the requirements described in 'Study design' under Section 1 for 'Growth inhibition study aquatic plants'.

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 20 August 2021.

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

In your comments to the draft decision, you clarified the substance identity of a screening study provided in your dossier, which clarified the uncertainties from the read-across issues for human health requests. Therefore, your comments on the draft decision make the read-across acceptable for the specific requests. The human health requests (Screening for reproductive/developmental toxicity, Annex VIII, Section 8.7.1, OECDT TG 421 or 422, and Pre-natal developmental toxicity study in one species, Annex IX, Section 8.7.2, OECD TG 414) were removed from the decision.

In your comments on the draft decision, you requested an extension of the deadline to provide information from 18 to 36 months from the date of adoption of the decision.

You explained that the Substance is difficult to test and supported your request to extend the deadline with a letter from your test laboratory.

On this basis, ECHA has granted the request and extended the deadline to 36 months.

ECHA took into account your comments and amended the requests and the deadline.

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

As no amendments were proposed, ECHA adopted the decision under Article 51(3) of REACH.

Appendix 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]

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[7].

1.2. Test material

1. *Selection of the Test material(s)*

The Test Material used to generate the new data must be selected taking into account the following:

a) the boundary composition(s) of the Substance,
b) 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*

a) 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.
b) The reported composition must identify all the constituents as far as possible as well as their concentration (OECD GLP (ENV/MC/CHEM(98)16) and EU Tests Methods Regulation (EU) 440/2008 (Note, Annex). Also, any constituents that have harmonised classification and labelling according to the CLP Regulation must be identified and quantified using the appropriate analytical methods,

With that detailed information, ECHA can confirm whether the Test Material is relevant for the Substance.

Technical instructions on how to report the above is available in the manual on How to prepare registration and PPORD dossiers[8].

[7] https://echa.europa.eu/practical-guides
[8] https://echa.europa.eu/manuals

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:

- 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.