~~Confidential~~

Helsinki, 13 October 2023

Addressees
Registrant of JS_401-000-7 as listed in Appendix 3 of this decision

Date of submission of the dossier subject to this decision
15/12/2014

Registered substance subject to this decision ("the Substance")
Substance name: C.I. Reactive Blue 230
EC/List number: 401-000-7

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

DECISION ON A COMPLIANCE CHECK

Under Article 41 of Regulation (EC) No 1907/2006 (REACH), you must submit the information listed below, by the deadline of ***20 April 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. Skin sensitisation (Annex VII, Section 8.3.; test method:
   i. *in vitro/in chemico* skin sensitisation information on molecular interactions with skin proteins (OECD TG 442C), inflammatory response in keratinocytes (OECD TG 442D) and activation of dendritic cells (OECD TG 442E) (Annex VII, Section 8.3.1.); and
   ii. only if the *in vitro/in chemico* test methods specified under point i.) above are not applicable for the Substance or the results obtained are not adequate for classification and risk assessment, *in vivo* skin sensitisation (Annex VII, Section 8.3.2.; test method: EU B.42./OECD TG 429).

2. In vitro gene mutation study in bacteria (Annex VII, Section 8.4.1.; test method: OECD TG 471, 2020) with Prival modification

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

4. Growth inhibition study aquatic plants (Annex VII, Section 9.1.2.; test method: EU C.3./OECD TG 201 or EU C.26./OECD TG 221)

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

5. Short-term repeated dose toxicity (28 days; Annex VIII, Section 8.6.1.) to be combined with the Screening for reproductive/developmental toxicity below

6. Screening for reproductive/developmental toxicity (Annex VIII, Section 8.7.1.; test method: EU B.64/OECD TG 422) by oral route, in rats

7. Adsorption/ desorption screening (Annex VIII, Section 9.3.1.; test method: EU C.18/OECD TG 106)

8. Simulation testing on ultimate degradation in surface water (triggered by Annex VIII, Section 9.2.; test method: EU C.25./OECD TG 309) at a temperature of 12°C.

9. Identification of degradation products (triggered by Annex VIII, Section 9.2; test method: EU C.25 / OECD TG 309)

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

Information required depends on your tonnage band

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

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

How to comply with your information requirements

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

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

Appeal

This decision, when adopted under Article 51 of REACH, may be appealed to the Board of Appeal of ECHA within three months of its notification to you. Please refer to http://echa.europa.eu/regulations/appeals for further information.

Failure to comply

If you do not comply with the information required by this decision by the deadline indicated above, ECHA will notify the enforcement authorities of your Member State.

Authorised[1] under the authority of Mike Rasenberg, Director of Hazard Assessment

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

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

Appendix 1: Reasons for the decision

Contents

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:

- Short-term repeated dose toxicity (28 day), (Annex VIII, Section 8.6.1.)
- Screening for reproductive/developmental toxicity (Annex VIII, Section 8.7.1.),
- Growth inhibition study aquatic plants (Annex VII, Section 9.1.2.).

In your comments to the draft decision you further suggested adaptation of the information requirements for:

- *In vitro* gene mutation in bacteria (Annex VII, Section 8.4.1).

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. Predictions for toxicological properties

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

6 You predict the properties of the Substance (also referred to as [redacted]) from information obtained from the following source substance(s):

i. [redacted] (EC No. [redacted]).

7 In this document, you provide the following reasoning for the prediction of toxicological properties:

8 "Both chemicals have low acute oral and dermal toxicity (LD50 >2000 mg/kg body weight). No skin irritation is noted and both are considered non-mutagenic based on in vitro and in vivo studies. While employing different routes of administration (dermal vs oral), 28-day repeated dosed toxicity studies both showed no treatment-related systemic toxicity up to the highest dose of 1000 mg/kg/day. During the necropsy testes/ovaries weights were unaffected by treatment during the tests and an OECD 421 Reproduction/Developmental Toxicity Screen of [redacted] showed no effect on reproduction of fetal development."

9 You also claim differences in skin sensitising properties of the target and source substances indicate that the target substance is less hazardous.

10 In your comments to the draft decision you propose to expand the read-across predictions to the genotoxic (in vitro gene mutation in bacteria) properties of the Substance by using information obtained from the following source substance(s):

ii. Reactive Black 005 (EC 701-365-5)

iii. Reactive Blue 250 (EC 300-644-5).

11 In addition to your above comments to the draft decision, you propose to expand the read-across predictions to the repeated dose toxicity (28 days) and reproductive/developmental toxicity properties of the Substance by using information obtained from the following source substance:

iv. [redacted] (EC [redacted])

12 In your comments you illustrate the structural similarities of the Substance and source substances ii., iii. and iv. and state that "all these dyes share a great homology because of the building blocks used and potential breakdown products due to the breakdown of the azo-bonds by bacteria and other microorganisms are identical." You indicate your intention to submit supporting data on these substances and on their potential breakdown products in the read-across justification document with a dossier update.

13 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.

14 We have identified the following issue(s) with the prediction(s) of toxicological properties:

0.1.1.1. Missing supporting information to substantiate worst-case

15 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 R.6, 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 the source substance(s).

16 As indicated above, your read-across hypothesis is based on the assumption that the source substance constitutes a worst-case for the prediction of the property under consideration of the Substance. In this context, relevant, reliable and adequate information allowing to compare the properties of the Substance and of the source substance(s) is necessary to confirm a conservative prediction of the properties of the Substance from the data on the source substance(s). Such information can be obtained, for example, from bridging studies of comparable design and duration for the Substance and for the source substance(s).

17 In your dossier, you provide a short-term (28-day) oral repeated dose toxicity study and a reproductive/developmental toxicity screening test used in the prediction for the source substance. For the Substance, you provide a short-term (28-day) dermal repeated dose toxicity study, but did not provide any mammalian toxicity study investigating reproductive/developmental toxicity.

18 In your comments to the draft decision you consider developing a read-across approach "which better fits into the concept set out in Annex XI, Section 1.5." You included a comparison of structures for the Substance and source substances ii., iii. and iv. You indicate your intention to provide more specific data on these three substances and on their potential breakdown products supporting the intended read-across approach in a dossier

update. You have not provided reliable source studies that would cover all structural variations of the Substance.

19 Specific reasons why the short-term study with the Substance cannot be considered reliable are explained further below under the information request 5. Aspects related to your intentions to expand read-across predictions to genotoxicity (in vitro gene mutation in bacteria) properties are discussed further below in sections 0.1.1.2 and 2.

20 ECHA acknowledges your intention to develop an alternative read-across approach but notes that the prediction of properties of the Substance currently lacks supporting information on the Substance and also the source substances ii., iii. and iv, which would allow for comparison. However, in the absence of complete read-across justification documentation, you have not established that a reliable prediction of the property under consideration of the Substance can be derived on the basis of your read-across hypothesis.

21 The available studies in the registration dossier therefore do not allow comparison of the source substance and the Substance for their genotoxic, reproductive or systemic toxicity profiles.

22 Therefore, you have not provided sufficient supporting information to scientifically justify the read-across.

0.1.1.2. Comments to the draft decision – missing robust study summaries

23 Annex XI, Section 1.5. requires that whenever read-across is used adequate and reliable documentation of the applied method must be provided. Such documentation must include robust study summary for each source study used in the adaptation.

24 Robust study summary must provide a detailed summary of the objectives, methods, results and conclusions of a full study report providing sufficient information to make an independent assessment of the study (Article 3(28)).

25 In your comments to the draft decision you have identified two source in vitro bacterial reverse mutation assays with read-across source substances ii. and iii., and a sub-acute toxicity study with source substance iv. that you intend to include in your dossier update. You did not provide sufficient information in the comments for ECHA to make an independent assessment of the studies (e.g. study methods and tabulated results missing).

26 You have not provided detailed information on the methods, results and conclusions, allowing for an independent assessment of the above source studies. Therefore, you have failed to provide a robust study summary for each source study used in the adaptation as required by Annex XI, Section 1.5.

0.1.2. Predictions for ecotoxicological properties

0.1.2.1. Aquatic toxicity

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

28 You predict the properties of the Substance (also referred to as [redacted]) from information obtained from the following source substance:

[redacted] (EC No. [redacted]).

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

30 "[redacted] and [redacted] have comparable physico-chemical properties and are therefore supposed to behave similarly in biological systems […] Hydrolysis data showed both of source and target chemicals have similar half-life period and are not readily biodegradable. Both are non-inhibitory to micro-organisms and have low potential for bioaccumulation. […]

Data for source and target chemicals showed low acute toxicity to fish and Daphnia. Therefore, the similar ecotoxicological results provide the relevant information to support the rationale for read-across from the source chemical to the target chemical."

31 ECHA understands that your read-across hypothesis assumes that different compounds have the same type of effects. You predict the properties of your Substance to be quantitatively equal to those of the source substance.

32 We have identified the following issue with the prediction of aquatic toxicity:

0.1.2.1.1. Unreliable source study

33 According to Annex XI, Section 1.5., the results to be read across must:

(1) have adequate and reliable coverage of the key parameters addressed in the corresponding study that shall normally be performed for a particular information requirement.

34 Specific reasons why the study on the source substance does not meet this criterion are explained further below under the applicable information requirement section 3. Therefore, no reliable predictions can be made for this information requirement.

0.1.2.2. Inadequate read-across hypothesis

1 Annex XI, Section 1.5. requires that whenever read-across is used adequate and reliable documentation of the applied method must be provided. Such documentation must include an explanation why the properties of the Substance may be predicted from other substances in the group, i.e. a read-across hypothesis. This hypothesis should be based on recognition of the structural similarities and differences between the substances (Guidance on IRs and CSA, Section R.6.). It should explain why the differences in the chemical structures should not influence the ecotoxicological properties or should do so in a regular pattern, taking into account that variations in chemical structure can affect both toxicokinetics (uptake and bioavailability) and toxicodynamics (e.g. interactions with receptors and enzymes) of substances (Guidance on IRs and CSA, Section R.6.2.1.3.).

2 Your read-across hypothesis is based on the structural similarities between the target and source substance, which you consider a sufficient basis for predicting the properties of the Substance. You also provide a comparison of physico-chemical and environmental fate properties of the target and source substance. However, your hypothesis does not explain why the structural differences between the substances do not influence the ecotoxicological properties or do so in a regular pattern.

3 You have not provided a well-founded hypothesis to establish a reliable prediction for a ecotoxicological property, explaining why the structural differences do not influence toxicokinetics and toxicodynamics of the substances, and thus why the properties of the Substance may be predicted from information on the source substance.

0.1.3. Conclusion on the read-across approach

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

0.2. Comments to the draft decision - Substance-tailored exposure-driven testing adaptation rejected

36 ECHA understands that you may have sought adaptation of the following standard information requirement(s) under Annex XI, Section 3.2 (a) or (c) substance-tailored exposure-driven testing:

- Short-term repeated dose toxicity (28 day), (Annex VIII, Section 8.6.1.)
- Screening for reproductive/developmental toxicity (Annex VIII, Section 8.7.1.)
- Simulation testing on ultimate degradation in surface water (Annex IX, Section 9.2.1.2.),
- Identification of degradation products.

37 This is because in the comments to the draft decision you provide arguments regarding the lack of environmental release of the Substance. But you have not explicitly specified an adaptation and you have not set out a legal basis for the adaptation.

38 To waive a short-term repeated dose toxicity study combined with the screening for reproductive/developmental toxicity study, in your comments to the draft decision you state that "the general population will not be exposed to the dye as such" and that "in the unlikely event, that unbound dye leaks out of the dyed fabric leading to dermal exposure during wearing the existing repeated dermal dosing study sufficiently also demonstrated no effects because of repeated exposure."

0.2.1. Issues identified with the substance-tailored exposure-driven testing adaptation for toxicological information requirements

39 A substance-tailored exposure-driven testing adaptation must fulfil the cumulative conditions set out under Annex XI, Sections 3(1) as well as 3(2)(a), (b) or (c).

0.2.1.1. Absence of or no significant exposure not demonstrated

40 Under Annex XI, Sections 3(1) and (2), testing may be omitted based on the exposure scenario(s) developed in the chemical safety report (CSR) by providing an adequate and scientifically supported justification based on a thorough and rigorous exposure assessment.

41 Under Annex XI, Section 3(2)(a)(i), the results of the exposure assessment covering all relevant exposure throughout the life cycle of the substance must demonstrate absence of or no significant exposure in all scenarios of the manufacture and all identified uses.

42 In the Chemical Safety Report for the Substance, you have estimated with the first tier exposure tool, ECETOC TRA v.3, inhalation exposure to be as high as 0.5 mg/m^3 for workers in formulation (ES1: PROC 5 and 8a), industrial (ES2: PROC 10) and professional uses (ES3: PROC 13) and 0.6 mg/m^3 in PROC 21 of professional use (ES3). In your comments, you describe the synthesis of the dye and the dyeing processes. However, the description is lacking a comprehensive description of exposure scenarios including conditions of use and exposure estimates.

43 In your exposure assessment in the CSR, you provide clear evidence that exposure occurs in ES 1, 2 and 3. Also your comments don't provide prove that exposure is absent for workers. ECHA reminds you that demonstration of no significant exposure via inhalation or skin cannot be done by using Tier 1 exposure modelling tool(s) as this is generally conservative, but also very uncertain. To demonstrate absence of or no significant exposure measured data or higher tier exposure modelling must be used.

44 Therefore, you have not demonstrated absence of or no significant exposure in all scenarios of the manufacture and all identified uses.

0.2.1.2. Lack of appropriate DNEL

45 Under Annex XI, Section 3.2(a)(ii), a relevant and appropriate derived no effect level (DNEL) must be derived.

46 You have derived inhalation DNEL from the 28 day repeated dose toxicity study performed via dermal route. As explained in Section 6.2.1. of this decision, the available 28 day repeated dose toxicity study is unreliable due to the fact that the physicochemical and toxicological properties do not suggest potential for a significant rate of absorption through the skin. Therefore, you have not provided a relevant and appropriate DNEL.

0.2.2. Issues identified with the substance-tailored exposure-driven testing adaptation for environmental fate information requirements

47 In addition to the your justification related to the human exposure (lack of exposure for the general population), you provide arguments regarding the negligible environmental release of the Substance. You have not specified an adaptation and you have not set out a legal basis for the adaptation.

0.2.2.1. Lack of appropriate PNEC

48 Under Annex XI, Section 3.2(a)(ii) and (iii), a relevant and appropriate predicted no effect concentration (PNEC) must be derived and the results of the exposure assessment must show that exposures are always well below the PNEC, i.e. risk characterisation ratios RCRs must always be well below 1.

49 For substances satisfying the PBT and vPvB criteria of Annex XIII long-term effects and the estimation of the long-term exposure cannot be carried out with sufficient reliability (Annex I, Section 4.0.1). As a result, for such substances, PNECs and PECs cannot be derived with sufficient reliability to demonstrate that the ratio between PECs and the PNEC are always well below 1.

50 As explained in request 8, the information from your dossier does not allow excluding that the Substance is PBT/vPvB.

51 Therefore, you have neither demonstrated that an appropriate PNEC can be derived nor that RCRs are well below 1.

0.2.2.2. Substance is not handled under strictly controlled conditions

52 Under Annex XI, Section 3(2)(c), it must be demonstrated and documentated for all relevant scenarios that throughout the life cycle strictly controlled conditions as set out in Article 18(4)(a) to (f) apply (see further Guidance on Intermediates and Practical Guide 16).

53 You have not claimed that the Substance is used under strictly controlled conditions and you have not provided any documentation.

54 Therefore, the use of the Substance under strictly controlled conditions is not demonstrated.

0.2.3. Conclusion on the substance-tailored exposure driven testing adaptation

55 Based on the above, your substance-tailored exposure driven testing adaptation under Annex XI, Section 3. is rejected.

Reasons related to the information under Annex VII of REACH

1. Skin sensitisation

56 Skin sensitisation is an information requirement under Annex VII, Section 8.3. Under Section 8.3., Column 1, the registrants must submit information allowing (1) a conclusion whether the substance is a skin sensitiser and (2) whether it can be presumed to have the potential to produce significant sensitisation in humans (Cat. 1A).

1.1. Information provided

57 You have adapted this information requirement under Section 8.3.1., column 2 using the following justification:

(i) Guinea pig Maximisation Test (1985) with the Substance

1.2. Assessment of the information provided

1.2.1. Assessment whether the Substance causes skin sensitisation

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

58 To fulfil the information requirement, and to enable concluding whether the Substance causes skin sensitisation, a study must comply with the EU Method B.6/OECD TG 406 (Article 13(3) of REACH). Therefore, the following specifications must be met:

i. a dose level selection rationale (e.g. preliminary study results) is provided;

59 In study (i) described as a guinea pig maximisation test:

i. no dose level selection rationale or preliminary study results were provided;

60 The selected concentrations in the main study (3 and 25% for intradermal injections and epidermal applications in induction, and 10% for challenge and re-challenge) are low considering the non-irritant properties of the Substance as reported in your dossier. There is no explanation why higher dose selection was not used. As a preliminary study was only referred to, but its results were not included in your documentation, ECHA is unable to evaluate whether the dose level selection rationale of the main study is according to the OECD TG 406.

61 In the comments to the draft decision you have reiterated that appropriate doses have been selected based on a preliminary study. However, ECHA cannot verify that appropriate dosing was selected for both induction (both intradermal and topical causing mild to moderate irritation) and challenge (highest non-irritating concentration) , as you have still not provided results of the preliminary study. Due to lack of this information, ECHA cannot verify whetherthe specifications(s) required by OECD TG 406 are met, which does not allow conclusions on whether the Substance causes skin sensitisation.

1.2.1.2. No assessment of potency

62 To be considered compliant and enable a conclusion in cases where the substance is considered to cause skin sensitisation, the information provided must also allow a

conclusion whether it can be presumed to have the potential to produce significant sensitisation in humans (Cat. 1A).

63 As the currently available data does not allow to conclude whether the Substance causes skin sensitisation (see section 1.2.1.1. above), this condition cannot be assessed.

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

1.3. Study design

65 To fulfil the information requirement for the Substance, information on molecular interaction with skin proteins and inflammatory response in keratinocytes and activation of dendritic cells (OECD TG 442C and OECD TG 442D and OECD TG 442E) must be provided. Furthermore an appropriate risk assessment is required if a classification of the Substance as a skin sensitiser (Cat 1A or 1B) is warranted.

66 In case no conclusion on the skin sensitisation potency can be made for the Substance based on the existing data or newly generated in vitro/in chemico data, in vivo skin sensitisation study must be performed and the murine local lymph node assay (EU Method B.42/OECD TG 429) is considered as the appropriate study for the potency estimation.

67 In your comments to the draft decision you anticipate problems with detection of cell viability via use of 3-(4,5-Dimethylthiazol-2-yl)-2,5-Diphenyltetrazolium Bromide (MTT) reagent and the UV-Vis spectrum of the Substance. The in chemico methods described in OECD TG 442C (DPRA and ADRA) do not use cell viability measurements and therefore no interference with the Substance is anticipated. The OECD TG 442E cell viability measurements are performed with e.g. propidium iodide (PI), 7-AAD or trypan blue, emissions detected with flow cytometry between 585 to 647 nm wave lengths. In OECD TG 442D, MTT is used for cell viability assessment for both of the methods, therefore interference in cell viability assessment cannot be excluded, as indicated by you. Therefore, based on your comments a defined approach for skin sensitisation as described in OECD TG 497 (2o3 or ITS) can still be applied by performing studies according to OECD TG 442C (DPRA) and OECD TG 442E (h-clat). A justification in the dossier must be provided in case OECD TG 442D investigating inflammatory response in keratinocytes, as required by Annex VII, Section 8.3.1, Column 1 (b), cannot be performed due to interference in cell viability assessment when using the Substance for testing.

2. In vitro gene mutation study in bacteria

68 An in vitro gene mutation study in bacteria is an information requirement under Annex VII, Section 8.4.1.

2.1. Information provided

69 You have provided:

(i) an *in vitro* gene mutation assay in bacteria (1985) with the Substance

70 In your comments to the draft decision you propose adapting this information requirement by using Annex XI, Section 1.5. (Grouping of substances and read-across approach) based on experimental data from the source substances ii and iii (as discussed under Section 0.1). You also point at the provided OECD TG 474 mammalian erythrocyte micronucleus study 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)

71 To fulfil the information requirement, a study must comply with the OECD TG 471 (Article 13(3) of REACH). Therefore, the following specifications must be met:

a) if the Substance is an azo-dye or a diazo-compound, the test in presence of metabolic activation is performed following the Prival modification;
b) the test is performed with 5 strains: four strains of *S. typhimurium* (TA98; TA100; TA1535; TA1537 or TA97a or TA97) and one strain which is either *S. typhimurium* TA102 or *E. coli* WP2 uvrA or *E. coli* WP2 uvrA (pKM101);

72 In study (i) described as an in vitro gene mutation study on bacteria:

a) although the tested substance is an azo-dye , the test in presence of metabolic activation was not performed following the Prival modification;
b) the test was performed with the strains *S. typhimurium* TA98, TA100, TA1535, and TA1537 (i.e., the *S. typhimurium* TA102 or *E. coli* WP2 uvrA or *E. coli* WP2 uvrA (pKM101) strain is missing.)

73 The information provided does not cover the specification(s) required by the OECD TG 471.

2.2.2. On your comments to the draft decision

74 We refer to the reasons set out in Section 0.1 above on why the information on read-across from data on the source substances does not meet the requirements for adaptation.In your comments to the draft decision you further refer to the OECD TG 474 mammalian erythrocyte micronucleus study with the Substance included in your dossier indicating "no alerts regarding genotoxicity." However, that study is related to cytogenicity whereas this information requirement is related to gene mutation.

75 In your comments to the draft decision you finally also disagree with ECHA request to conduct an in vitro gene mutation in bacteria "as this is expected not to add any value to the current hazard assessment." You propose to further investigate genotoxicity in in vitro mammalian cell gene mutation study "to close the overall hazard assessment regarding genotoxicity."

76 ECHA notes that an in vitro gene mutation study in mammalian cells is considered complementary to a gene mutation study in bacteria and it is not intended to supersede it as both studies investigate different mechanisms of gene mutation. In vitro mammalian cell gene mutation study cannot therefore be used to replace the in vitro gene mutation study in bacteria.

77 Therefore, the information requirement is not fulfilled.

2.3. Specification of the study design

78 To fulfil the information requirement for the Substance, the in vitro gene mutation study in bacteria (OECD TG 471, 2020) is considered suitable.

79 Your Substance is an azo dye for which the standard procedure may not detect all mutations. Therefore, you are required to use the Prival modification (see Paragraph 10 of OECD TG 471).

3. Short-term toxicity testing on aquatic invertebrates

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

3.1. Information provided

81 You have provided:

(i) a study on short-term toxicity to invertebrates (1987) 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

82 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:

83 Technical specifications impacting the sensitivity/reliability of the test

a) the test duration is 48 hours or longer.

84 Characterisation of exposure

b) 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.

85 In study (i) described as short-term toxicity study on daphnids:

86 Technical specifications impacting the sensitivity/reliability of the test

a) the test duration was 24 hours.

87 Characterisation of exposure

b) no analytical monitoring of exposure was conducted.

88 Based on the above,

- there are critical methodological deficiencies resulting in the rejection of the study results. More specifically, the test duration of study (i) is shorter than 48 hours and the test did not include the monitoring of exposure concentrations. Therefore, the test method used may have been less sensitive and may have produced a higher effect concentration as a result than the test method described by OECD TG 202.

89 Therefore, the requirements of OECD TG 202 are not met.

90 Therefore, the information requirement is not fulfilled.

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

3.3. Study design and test specifications

92 The Substance is difficult to test due to its colouring properties (technical function reported in section 3 of your IUCLID dossier: dye). OECD TG 202 specifies that, for difficult to test substances, you must consider the approach described in OECD GD 23 or other approaches, if more appropriate for your substance. In all cases, the approach selected must be justified and documented. Due to the properties of Substance, it may be difficult to achieve and maintain the desired exposure concentrations. Therefore, you must monitor the test concentration(s) of the Substance throughout the exposure duration and report the results. If it is not possible to demonstrate the stability of exposure concentrations (i.e. measured concentration(s) not within 80-120% of the nominal concentration(s)), you must express

the effect concentration based on measured values as described in OECD TG 202. In case a dose-response relationship cannot be established (no observed effects), you must demonstrate that the approach used to prepare test solutions was adequate to maximise the concentration of the Substance in the test solution.

4. Growth inhibition study aquatic plants

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

4.1. Information provided

94 You have adapted this information requirement by using Annex XI, Section 1.5. (Grouping of substances and read-across approach) based on experimental data from the following substances:

(i) a study on algal toxicity (2010) with the source substance [redacted] (EC No. [redacted]);

4.2. Assessment of the information provided

4.2.1. Read-across adaptation rejected

95 As explained in Section 0.1., your adaptation based on grouping of substances and read-across approach under Annex XI, Section 1.5 is rejected.

96 Therefore, the information requirement is not fulfilled.

97 In the comments to the draft decision, you agree to perform an OECD TG 221 test.

4.3. Study design and test specifications

98 OECD TG 201 and OECD TG 221 specifiy 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 3.

Reasons related to the information under Annex VIII of REACH

5. Short-term repeated dose toxicity (28 days)

99 A short-term repeated dose toxicity study (28 days) is an information requirement under Annex VIII, Section 8.6.1.

5.1. Information provided

100 You have provided:

(i) Sub-acute (28-day) dermal repeated dose toxicity study with the Substance,
(ii) Sub-acute (28-day) oral repeated dose toxicity study with the source substance [redacted] (EC No. [redacted]).

101 In your comments to the draft decision you propose adapting this information requirement by using Annex XI, Section 1.5. (Grouping of substances and read-across approach) based on experimental data from the source substance(s) (as discussed under Section 0.1).

102 You also provided comments to the draft decision that may be interpreted as intention to adapt the information requirement according to Annex XI, Section 3.2 (a) or (c) substance-tailored exposure-driven testing.

5.2. Assessment of the information provided

5.2.1. Read-across adaptation rejected

103 As explained in Section 0.1., your adaptation based on grouping of substances and read-across approach under Annex XI, Section 1.5 is rejected.

5.2.2. Study not adequate for the information requirement

104 Column 2 of Annex VIII, Section 8.6.1 (short-term repeated dose toxicity study) states that testing by the dermal route is appropriate if

i. the physicochemical and toxicological properties suggest potential for a significant rate of absorption through the skin

105 Study (i) was conducted using dermal administration while you state that "dermal uptake will be very unlikely" for the Substance.

106 Your dossier also shows the high molecular weight (ca. 938.8 g/mol) and lipophobicity (log Kow -1 used in your assessment).

107 ECHA agrees with your estimation of the unlikely dermal uptake based on the high molecular weight and lipophobicity of the Substance being unfavorable to dermal uptake.

108 Based on the available information that criteria for by the dermal route is not fulfilled because

i. the physicochemical and toxicological properties do not suggest potential for a significant rate of absorption through the skin

109 Based on the above, the provided study is unreliable and the information requirement is not fulfilled.

5.2.3. On your comments to the draft decision

110 We refer to the reasons set out in Sections 0.1 and 0.2 above on why the information on read-across from data on the source substances, as well as the information that you may have considered for adaptation under Annex XI, Section 3.2 (a) or (c) - substance-tailored exposure-driven testing -, do not meet the requirements for adaptation.

5.3. Specification of the study design

111 Following the criteria provided in Annex VIII, Section 8.6.1, Column 2, and considering the guidance on IRs and CSA, Section R.7.5.6.3.1, the oral route is the most appropriate route of administration to investigate repeated dose toxicity of the Substance, because even though the substance is reported to occur as a dust with a significant proportion (>1% on weight basis) of particles of inhalable size (MMAD < 50 µm), the exposure concentrations reported in the chemical safety report for the inhalation route are low (maximum 0.5 mg/m^3).

112 According to the OECD TG 407, the rat is the preferred species.

113 Therefore, the study must be performed according to the OECD TG 407, in rats and with oral administration of the Substance.

114 When there is no information available neither for the 28-day repeated dose toxicity (EU B.7, OECD TG 407), nor for the screening study for reproductive/developmental toxicity (OECD TG 421 or TG 422), the conduct of a combined repeated dose toxicity study with the reproduction/developmental toxicity screening test (OECD TG 422) is preferred to ensure that unnecessary animal testing is avoided. Such an approach offers the possibility to avoid carrying out a 28-day study according to OECD TG 407, because the OECD TG 422 can at the same time fulfil the information requirement of REACH Annex VIII, Section 8.6.1 and that of REACH Annex VIII, Section 8.7.1. (Guidance on IRs and CSA, Section R.7.6.2.3.2.).

115 For information on the study design see request for OECD TG 422 below.

6. Screening for reproductive/developmental toxicity

116 A screening for reproductive/developmental toxicity study (OECD 421 or OECD 422) is an information requirement under Annex VIII, Section 8.7.1., if there is no evidence from analogue substances, QSAR or in vitro methods that the substance may be a developmental toxicant.

6.1. Information provided

117 You have adapted this information requirement by using Annex XI, Section 1.5. (Grouping of substances and read-across approach) based on experimental data from the following substances:

(i) a reproduction/developmental screening test (2011) with the source substance [redacted] (EC No. [redacted]);
(ii) a prenatal developmental toxicity study (2011) with the source substance [redacted], EC [redacted].

118 You provided comments to the draft decision that may be interpreted as intention to adapt the information requirement according to Annex XI, Section 3.2 (a) or (c) substance-tailored exposure-driven testing. We refer to the reasons set out in Section 0.2 above on why the information that you may have considered for adaptation under Annex XI, Section

3.2 (a) or (c) - substance-tailored exposure-driven testing -, do not meet the requirements for adaptation.

6.2. Assessment of the information provided

6.2.1. Read-across adaptation rejected

119 As explained in Section 0.1., your adaptation based on grouping of substances and read-across approach under Annex XI, Section 1.5 is rejected.

120 Your related comments to the draft decision have been addressed in that section above.

6.3. Specification of the study design

121 A study according to the test method EU B.64/OECD TG 422 must be performed in rats.

122 The study must be conducted with oral administration of the Substance (Guidance on IRs and CSA, Section R.7.6.2.3.2.).

123 Therefore, the study must be conducted in rats with oral administration of the Substance.

7. Adsorption/ desorption screening

124 Adsorption/desorption screening is an information requirement under Annex VIII to REACH (Section 9.3.1).

7.1. Information provided

125 You have adapted this information requirement by using Column 2 of Annex VIII, Section 9.3.1. To support the adaptation, you have provided following information:

(i) a data waiver stating that the study does not need to be conducted because on the basis of the low octanol-water partition coefficient of the Substance (log K_{ow}: -13), it is expected to have a very low potential for adsorption.

7.2. Assessment of the information provided

126 Under Annex VIII, Section 9.3.1, Column 2, first indent, the study may be omitted if the substance can be expected to have a low potential for adsorption (e.g. the substance has a low octanol-water partition coefficient). In order to adapt this information requirement based on low octanol-water partition coefficient (log K_{ow}), lipophilicity must be the sole characteristic driving the adsorption potential of a substance. However, for some groups of substances (e.g. ionisable substances, surfactants) other mechanisms than lipophilicity may drive adsorption.

127 You justified the adaptation by stating that the Substance has a low octanol-water partition coefficient.

128 The Substance is ionisable on the basis of the following pieces of information:

- the Substance is permanently ionised at environmental pH (i.e. in the 4-9 pH range), on the basis of an ACD/Percepta estimation of the dissociation behaviour;
- in section 1.2 of your IUCLID dossier, you report that the Substance is a sodium salt and you provide a structural formula that indicates that the structure includes multiple sulphate groups and is charged;

- in section 4.8 of your IUCLID dossier, you report that the Substance is very soluble (water solubility: 246 g/L at 20°C), which is also in line with the dissociation behaviour mentioned above.

129 Based on the ionisable properties of the Substance, you have not demonstrated that the log K_{ow} is a valid descriptor for assessing the adsorption potential of the Substance and your adaptation is rejected.

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

131 In the comments to the draft daecision, you agree to perform the requested test.

7.3. Specification of the test selection and study design

132 The OECD TG 106 Batch Equilibrium Method is the appropriate method to study the adsorption of the Substance. This method uses a range of actual soils and so represents a more realistic scenario than the HPLC (OECD TG 121) method. The ionisable properties of the Substance should be considered when selecting the appropriate test design. For ionisable substances, soil types should cover a wide range of pH.

8. Simulation testing on ultimate degradation in surface water

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

8.1. Triggering of the information requirement

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

- it is potentially persistent or very persistent (P/vP) as:
  - it is not readily biodegradable (*i.e.* <60% degradation in an OECD 301A), and
  - it shows <70% degradation within 14 days in an OECD 302B inherent biodegradation test;
- it is potentially bioaccumulative or very bioaccumulative (B/vB) as:
  - for some groups of substances (e.g. organometals, ionisable substances, surfactants) other partitioning mechanisms may drive bioaccumulation (e.g. binding to protein/cell membranes) and high potential for bioaccumulation cannot be excluded solely based on its potential to partition to lipid.

135 Your registration dossier provides the following:

- the Substance is not readily biodegradable (0% degradation after 28 days in OECD TG 301A);
- the Substance is not inherently biodegradable (22% degradation within 14 days in an inherent biodegradation test OECD 302B)
- the Substance is an ionisable substance and therefore high potential for bioaccumulation cannot be excluded based on available information.

136 Under section 2.3 of your IUCLID dossier and section 8 of your CSR ('PBT assessment'), you conclude that the Substance is P/vP and it is not B/vB. In support of your conclusion you provide the following additional information:

- you report that the Substance has a log K_{ow} value ≤ 4.5 (log K_{ow} is estimated to be -13).

137 However,

- as explained above in section 8.1., the Substance is ionisable. Therefore, the potential for bioaccumulation of the Substance may not be solely driven by lipophilicity. Therefore, octanol-water partition coefficient value alone, as log K_{ow}, is not a reliable predictor of bioaccumulation potential for this type of substances.

138 Therefore, the additional information from your PBT assessment is not adequate to conclude that the Substance is not a potential PBT/vPvB substance.

139 Further, you have not provided a simulation study which would allow you to conclude on persistence of the Substance.

140 Based on the above, the available information on the Substance indicates that it is a potential PBT/vPvB substance. Further, the additional information from your PBT assessment is not adequate to conclude on the PBT/vPvB properties of the Substance.

8.2. Information provided in the comments to the draft decision relevant to the potential PBT properties of the Substance and assessment of the provided information

141 In the comments to the draft decision, you have provided the following:

i. a justification related to the toxicokinetic behaviour of the Substance. You base these toxicokinetic considerations on physico-chemical properties of the Substance, as well as conclusions on similar dyes (including Reactive Black 005, EC 701-365-5). On this basis, you claim that the Substance has a low potential for bioaccumulation.

142 ECHA understands that you have provided the above information relevant to the B/vB assessment of the Substance in order to show that the Substance is not a potentially PBT/vPvB substance.

143 However, the information provided in your comments does not change the above conclusion. This is because the provided information is insufficient to conclude on the B/vB assessment of the Substance.

144 Under Annex XIII, Section 3.2., available information on the toxicokinetic behaviour of the substance has to be considered for the assessment of B/vB properties, provided that its suitability and reliability can be reasonably demonstrated.

145 In the comments to the draft decision, you have provided a justification related to the toxicokinetic behaviour of the Substance, arguing that the Substance has low potential for bioaccumulation. You based this justification on physico-chemical properties of the Substance (e.g. log Pow, vapour pressure, molecular weight of the Substance), and on observations from mammalian studies conducted with similar dyes. You argue that the substance is expected to be taken up mainly via the oral route; will likely be distributed among organs; it will be metabolized; and finally, it will be excreted via bile and through urine.

146 However, you have not provided any new scientific information (e.g. experimental data on toxicokinetic behaviour, and in particular, on elimination processes) that could support your claims.

147 On this basis, your justification related to the low bioaccumulation potential of the Substance is rejected.

8.3. Information provided to meet the simulation testing on ultimate degradation in surface water information requirement in your comments to the draft decision

148 In the comments to the draft decision, you have provided the following information:

i. You argue that the environmental releases of the Substance are negligible.

ii. You indicate your intention to submit QSAR data to identify the potential degradation products of the Substance and provide screening information on their PBT/vPvB properties.

iii. You claim that radiolabelling of dyes is technically challenging.

iv. You claim that the Substance does not pose any hazard to the environment, based on available data from aquatic and terrestrial tests. In relation to this, you propose to conduct sediment toxicity testing to be able to conclude on the lack of ecotoxicity of the Substance.

149 ECHA understands that in points i. ii., and iii., you may have sought adaptation of the information requirement under Annex XI, Section 3, Annex XI, Section 1.3, and Annex XI, Section 2, respectively.

8.4. Assessment of the information provided

8.4.1. Issues identified with information provided to meet the simulation testing on ultimate degradation in surface water information requirement

8.4.1.1. Substance-tailored exposure-driven testing adaptation rejected

150 ECHA understands that in the provided information in point i., you may have sought adaptation of the the information requirement by means of substance-tailored exposure-driven testing, under Section 3 of Annex XI.

151 As explained above in Section 0.2 of this decision, your adaptation under Annex XI, Section 3 is rejected.

8.4.1.2. The QSAR result is not equivalent to results obtained from the required experimental test

152 In point ii., you propose to follow a tiered approach, in which you identify the potential biodegradation products of the substance using an appropriate QSAR model (you mention the EAWAG-BBD Pathway Prediction System as an example) and then screen the PBT properties of the potential biodegradation products using appropriate QSAR models.

153 ECHA understands that in point ii., you may have sought adaptation of the the information requirement by means of qualitative or quantitative structure-activity relationship models ((Q)SARs), under Section 1.3 of Annex XI.

154 ECHA acknowledges your intention to submit a new adaptation as part of a future dossier update. However, as indicated in your comments, this strategy relies essentially on data

which is yet to be generated, therefore no conclusion on the compliance can currently be made.

155 Further, ECHA notes that results from (Q)SAR models are adequate for risk assessment or classification and labelling when they are equivalent to results obtained from the required experimental test. The corresponding study that must normally be performed for this particular information requirement is test method OECD TG 309, which measures the following key parameters:

i. the rate of aerobic transformation of the test material in natural surface water;

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

156 You have indicated your intention to provide predictions from the (Q)SAR model EAWAG-BBD Pathway Prediction System, which predicts plausible pathways for microbial degradation of chemical compounds by using biotransformation rules, which based on reactions found in the EAWAG-BBD database or in the scientific literature.

157 The model predicts potential biodegradation products but does not measure the rate of aerobic transformation of the test material in natural surface water and the rates of formation and decline of transformation/degradation products. Therefore, the prediction you have indicated to submit would not be adequate to meet the information requirement for soil simulation testing for the purpose of classification and labelling and/or risk assessment.

8.4.1.3. No technical impossibility demonstrated

158 In the provided information in point iii., you claim that radiolabelling of dyes is technically challenging. ECHA understands that you may have sought adaptation of the the information requirement by claiming that testing is technically not possible, under Section 2 of Annex XI. However, you have not provided any substance-specific information about the testing of the Substance.

159 On this basis, your justification is rejected.

8.4.1.4. Your justification to omit the study has no legal basis

160 A registrant may only adapt this information requirement based on the general rules set out in Annex XI or the specific rules set out in Annex IX, Section 9.2.1.2., Column 2.

161 Your justification to omit this information in point iv. does not refer to any legal ground for adaptation under Annex XI to REACH or Annex IX, Section 9.2.1.2., Column 2.

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

163 Further, ECHA acknowledges your intention to submit a testing proposal for sediment toxicity testing as part of a future dossier update. However, as indicated in your comments, this strategy relies on a testing proposal which is yet to be submitted. Therefore, no conclusion on the proposal can be made.

164 Based on the above, the information requirement is not fulfilled.

8.5. Study design and test specifications

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

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

2) a kinetic study where the degradation rate constants (and degradation half-lives) of the parent substance and of relevant transformation/degradation products are experimentally determined.

166 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.).

167 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.

168 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. Paragraph 52 of the OECD TG 309 provides that the "total recovery (mass balance) at the end of the experiment should be between 90% and 110% for radiolabelled substances, whereas the initial recovery at the beginning of the experiment should be between 70% and 110% for non-labelled substances". NERs contribute towards the total recovery. Therefore, the quantity of the (total) NERs must be accounted for the total recovery (mass balance), when relevant, to achieve the objectives of the OECD TG 309 to derive degradation rate and half-life. The reporting of results must include a scientific justification of the used extraction procedures and solvents.

a) For the persistence assessment by default, total NERs is regarded as non-degraded Substance. However, if reasonably justified and analytically demonstrated a certain part of NERs may be differentiated and quantified as irreversibly bound or as degraded to biogenic NERs, such fractions could be regarded as removed when calculating the degradation half-life(s) (Guidance on IRs and CSA, Section R.11.4.1.1.3.). Further recommendations may be found in the background note on options to address non-extractable residues in regulatory persistence assessment available on the ECHA website (NER - summary 2019 (europa.eu)).

169 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.).

9. Identification of degradation products

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

9.1. Triggering of the information requirement

171 This information requirement is triggered in case the chemical safety assessment (CSA) indicates the need for further degradation investigation (Annex I, Section 4; Annex XIII,

Section 2.1), such as if the substance is a potential PBT/vPvB substance (Guidance on IRs and CSA, Section R.11.4.).

172 As already explained in Request 8, the Substance is a potential PBT/vPvB substance.

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

174 Your registration dossier does not include any information on degradation products identity.Therefore, the information requirement is not fulfilled.

9.2. Information provided to meet the identification of degradation products information requirement in your comments to the draft decision

175 In the comments to the draft decision, you have provided the following information:

i. You argue that the environmental releases of the Substance are negligible.

ii. You indicate your intention to adapt the information requirement by submitting QSAR. You propose to follow a tiered approach, in which you first identify the potential biodegradation products of the substance using an appropriate QSAR model (you mention the EAWAG-BBD Pathway Prediction System as an example) and then screen the PBT properties of the potential biodegradation products using appropriate QSAR models.

9.3. Assessment of the information provided

176 ECHA understands that in point i., you may have sought adaptation of the the information requirement by means of substance-tailored exposure-driven testing, under Section 3 of Annex XI.

177 As explained above in Section 0.2 of this decision, your adaptation under Annex XI, Section 3 is rejected.

178 ECHA understands that in point ii., you may have sought adaptation of the the information requirement by means of qualitative or quantitative structure-activity relationship models ((Q)SARs), under Section 1.3 of Annex XI.

179 ECHA acknowledges your intention to submit a new adaptation as part of a future dossier update. However, as indicated in your comments, this strategy relies essentially on data which is yet to be generated, therefore no conclusion on the compliance can currently be made.

9.4. Study design and test specifications

180 Regarding the selection of appropriate and suitable test method(s), the method(s) will have to be substance-specific. Identity, stability, behaviour, and molar quantity of the degradation/transformation products relative to the Substance must be evaluated and reported, when analytically possible. In addition, degradation half-life, log K_{ow} and potential toxicity of the transformation/degradation may need to be investigated. You may obtain this information from the degradation study requested in Request 8 or by some other measure. If any other method is used for the identification of the transformation/degradation products, you must provide a scientifically valid justification for the chosen method.

181 To determine the degradation rate of the Substance, the requested study according to OECD TG 309 (Request 8) must be conducted at 12°C and at a test concentration < 100 µg/L. However, to overcome potential analytical limitations with the identification and quantification of major transformation/degradation products, you may consider running a

parallel test at higher temperature (but within the frame provided by the test guideline, e.g. 20°C) and at higher application rate (i.e. > 100 µg/L).

182 You may also use other appropriate and suitable test method(s) to provide information on the identity of the transformation/degradation products, for example an enhanced screening level degradation test or modelling tools. You will need to provide a scientifically valid justification for the chosen method. The provided information should include, identification, stability, behaviour, molar quantity of transformation/degradation products relative to the parent compound. In addition, degradation half-life, log K_{ow} and potential toxicity of the transformation/degradation may need to be investigated.

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 06 April 2022.

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

ECHA took into account your comments and amended the request(s). You have provided information in your comments and in an update of your registration dossier (submission date 16 June 2023) which was found to address incompliance identified in the draft draft decision. Therefore the original request for a gene mutation study in mammalian cells was removed

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 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[2].

(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

(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 boundary composition(s) of the Substance,
- the impact of each constituent/ impurity on the test results for the endpoint to be assessed. For example, if a constituent/ impurity of the Substance is known to have an impact on (eco)toxicity, the selected Test Material must contain that constituent/ impurity.

(2) Information on the Test Material needed in the updated dossier
- You must report the composition of the Test Material selected for each study, under the "Test material information" section, for each respective endpoint study record in IUCLID.
- The reported composition must include all constituents of each Test Material and their concentration values and other parameters relevant for the property to be tested.

This information is needed to assess whether the Test Material is relevant for the Substance.

Technical instructions on how to report the above is available in the manual on How to prepare registration and PPORD dossiers[3].

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

2. General recommendations for conducting and reporting new tests

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