ECHA
EUROPEAN CHEMICALS AGENCY

Helsinki, 19 July 2018

Addressee: [redacted]

Decision number: TPE-D-2114425279-45-01/F
Substance name: trichloro(hexadecyl)silane
EC number: 227-575-2
CAS number: 5894-60-0
Registration number: [redacted]
Submission number: [redacted]
Submission date: 26.06.2017
Registered tonnage band: 100-1000T

DECISION ON A TESTING PROPOSAL

Based on Article 40 of Regulation (EC) No 1907/2006 (the 'REACH Regulation'), ECHA has examined your testing proposal(s) and decided as follows.

While your proposed tests for a

7-day and a conditional 28-days repeated dose toxicity studies in rats, via oral route, using the analogue substance trichloro(propyl)silane, (CAS No 141-57-1, EC No 205-489-6)

are rejected, you are requested to perform:

1. **Sub-chronic toxicity study (90-day), oral route (Annex IX, Section 8.6.2.; test method: EU B.26./OECD TG 408) in rats using the registered substance; and**
2. **Pre-natal developmental toxicity study (Annex IX, Section 8.7.2.; test method: EU B.31./OECD TG 414) in a first species (rats or rabbits), oral route using the registered substance.**

You may adapt the testing requested above according to the specific rules outlined in Annexes VI to X and/or according to the general rules contained in Annex XI of the REACH Regulation. In order to ensure compliance with the respective information requirement, any such adaptation will need to have a scientific justification, referring and conforming to the appropriate rules in the respective Annex, and an adequate and reliable documentation.

You are required to submit the requested information in an updated registration dossier by **27 July 2020**. You shall also update the chemical safety report, where relevant.

The reasons of this decision are set out in Appendix 1. The procedural history is described in Appendix 2. Advice and further observations are provided in Appendix 3.

Appeal

This decision can be appealed to the Board of Appeal of ECHA within three months of its notification. An appeal, together with the grounds thereof, shall be submitted to ECHA in writing. An appeal has suspensive effect and is subject to a fee. Further details are described under http://echa.europa.eu/regulations/appeals.

Authorised[1] by Ofelia Bercaru, Head of Unit, Evaluation E3

[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

The decision of ECHA is based on the examination of the testing proposals submitted by you for the registered substance trichloro(hexadecyl)silane, CAS No 5894-60-0 (EC No 227-575-2) (hereafter referred to as the 'target substance'), taking into account the updated dossier.

In relation to the testing proposals subject to the present decision, ECHA notes that the initial draft decision was based on the dossier with the submission number [redacted]. Therein you proposed a testing strategy intending of conducting a

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

on the analogue substance hexadecyl(trimethoxy)silane, CAS No 16415-12-6 (EC No 240-464-3; hereafter referred to as the 'initial source substance'), in order to fulfil the standard information requirements for Sub-chronic toxicity study (90-day) (Annex IX, Section 8.6.2.); and Pre-natal developmental toxicity study (Annex IX, Section 8.7.2.) of the registered substance.

ECHA has considered the scientific validity of the proposed read-across and grouping approach and assessed the testing proposed and concluded that you did not provide adequate and reliable information to demonstrate that the proposed read-across approach is plausible for the endpoint in consideration. Consequently the testing proposed on the read-across substance(s) was rejected and ECHA requested you to perform a sub-chronic toxicity study (90-day), oral route (Annex IX, Section 8.6.2.; test method: EU B.26./OECD TG 408) and a Pre-natal developmental toxicity study (Annex IX, Section 8.7.2.) with the registered substance.

The major reasons for rejecting read-across approach as proposed in the dossier with the submission number [redacted] have been thoroughly addressed in the initial draft decision and are briefly summarised below. Based on the provided data, the read-across hypothesis and justification ECHA concluded that you did not sufficiently demonstrate,

- that structural similarity as well as physical-chemical and basic toxicological parameters are in the same range;
- that the hydrolysis of the target and source substances is both rapid and complete, leading to the formation of the same silanol hydrolysis products (hexadecylsilanetriol); and
- that the formed silanol substance are exclusively relevant in terms of bioavailability and hence would drive the systemic toxicity and possessing similar toxicological profile.

In your comments to the draft decision you did not provide considerations to the specific endpoint, subject to the decision.

After receiving the draft decision you updated your registration with the submission number [redacted] and changed the testing strategy.

ECHA notes that although you have unticked the IUCLID tick box 'experimental study planned' you still have an intention of testing an analogue substance (trichloro(propyl)silane (CAS No 141-57-1, EC No 205-489-6) in order to fulfil the standard information requirement for a Sub-chronic toxicity study (90-day) (Annex IX, Section 8.6.2.) and a Pre-natal developmental toxicity study (Annex IX, Section 8.7.2.) of the registered substance. ECHA has to examine in the context of the testing proposal examination any intention of testing, including testing of an analogue substance, to ensure that the proposed strategy of generation of data is tailored to the relevant information needs for the endpoint and the

dossier under the assessment. As your intention of testing an analogue substance trichloro(propyl)silane (CAS No 141-57-1, EC No 205-489-6, hereafter referred as "source substance") is clearly demonstrated in your recent update (submission number [redacted]), the decision-making process of the testing proposal will continue. ECHA has assessed your changed testing strategy. To the extent that all (human health related) proposed testing relies on the same read-across justification, ECHA has considered first the scientific validity of the proposed read-across and grouping approach (preliminary considerations; Section 0, below), before assessing the testing proposed (Section 1, Section 2, below).

0. Grouping of substances and read-across approach

a. Legal Background on ECHA's assessment of the grouping of substances and read-across hypothesis

The evaluation by ECHA of testing proposals submitted by registrants aims at ensuring that generation of information is tailored to real information needs. To this end, it is necessary to consider whether programmes of testing proposed by you are appropriate to fulfil the relevant information requirements and to guarantee the identification of health and environmental hazards of substances. In that respect, the REACH Regulation aims at promoting wherever possible the use of alternative means, where equivalent results to the prescribed test are provided on health and environmental hazards.

Article 13(1) of the REACH Regulation provides that information on intrinsic properties of substances may be generated whenever possible by means other than vertebrate animal tests, including information from structurally related substances (grouping of substances and read-across), *"provided that the conditions set out in Annex XI are met"*.

The first Recital and the first Article of the REACH Regulation establish the *"promotion of alternative methods for assessment of hazards of substances"* as an objective pursued by the Regulation. In accordance with that objective, ECHA considers whether a prediction of the relevant properties of the substance subject to the present decision by using the results of the proposed tests is plausible based on the information currently available.

b. Description of the proposed grouping and read-across approach

In the updated dossier you have provided the following arguments to justify the read-across approach.

In Section 7.5.1 of the updated IUCLID dossier you propose that *"A 7-day dose-range-finding (DRF) study with trichloro(propyl)silane (CAS 141-57-1) is in progress, with an expected completion date of 30th June 2017. A decision on whether a 28-day DRF study with trichloro(propyl)silane is scientifically justified will be based on the extent of corrosion observed in the on-going 7-day study. This stepwise approach is being used to investigate the corrosive effects of trichloro(propyl)silane, which is representative of other registered chlorosilanes, following repeated oral gavage administration to rats. The results of the 7-day DRF (and possibly the 28-day DRF) study with trichloro(propyl)silane and consideration of HCl release will form the basis of the justification for testing/not testing this and other chlorosilanes, in full higher tier studies."*

In your justification document attached in Section 7.5.1 of the technical dossier you give information on properties of related substances including the registered substance as well. In particular the following appears to be relevant:

"Overall, based on the available studies, it is evident that local corrosive effects of chlorosilanes in the gastrointestinal tract do occur and supports the conclusion that testing of chlorosilanes in repeated dose toxicity studies via the oral route is unethical and scientifically unjustified."

To justify the selection of the source substance as representative for other chlorosilanes you state that:

"All chlorosilanes are moisture-sensitive liquids that hydrolyse very rapidly in contact with aqueous media and particularly under physiological conditions to generate hydrochloric acid and silicon containing hydrolysis products (Half-life (OECD 111): <1 minute at 25 °C and pH 4, 7 and 9; ≤ 5 seconds at 37.5 °C and pH 2 (predicted)).

The doses being investigated in the 7-day dose-range finding (DRF) study are based on the predicted amount of HCl that would be released, and the minimum possible dosing volume. For chlorosilanes, in general, it is expected that the highest dose that can be tested is limited by corrosion of gastrointestinal tract surfaces and therefore experimental animal welfare, and the lowest dose is restricted by the technical feasibility of dosing low volumes of the test substance to rats.

Therefore, the results of the 7-day DRF (and possibly the 28-day DRF) study with trichloro(propyl)silane and consideration of HCl release will form the basis of the justification for testing/ not testing this and other chlorosilanes, in full higher tier studies."

c. Information submitted to support the grouping and read-across approach

You have provided several documents as separate attachments in IUCLID, Section 13 relevant to the testing proposed:

[redacted]

Apart from the above information you have provided the substance and endpoint specific read-across hypothesis and justification, also in the Chemical Safety Report (CSR) in Section 5.

In addition you have provided records of the following toxicological studies relevant for your proposed strategy.

For the target substance:

- an acute toxicity study via oral route (OECD 423; [redacted] 2002a);

For the analogue substances:

- an acute toxicity study via oral route (OECD 423; [redacted] 1997) with dichloro(3-chloropropyl)methylsilane (CAS 7787-93-1);
- a seven-day dose range-finding study (non-guidance, [redacted] 2004) with triacetoxy(ethyl)silane (CAS 17689-77-9).

For one of the hydrolysis products hydrogen chloride:

- a repeated dose toxicity study on hydrogen chloride (HCl; OECD 413, Toxicogenics, 1983).

d. ECHA analysis of the grouping approach and read-across hypothesis in light of the requirements of Annex XI, 1.5

ECHA notes that the registrants of chlorosilanes have grouped their substances in 'chlorosilanes category', including the substance subject to the current decision. However, as stated in the document *"Category report Mammalian toxicity of chlorosilanes"* attached in Section 13 of the technical dossier of the registered substance, the category approach does not apply for repeated dose toxicity, reproductive toxicity and developmental toxicity.

Based on the substance specific justification for the test(s) proposed ECHA understands that you intend to test the source substance trichloro(propyl)silane (CAS No 141-57-1, EC No 205-489-6) in a 7 days and potentially in a 28 days repeated dose toxicity study in order to decide on whether *"testing/not testing this and other chlorosilanes in full higher tier studies"* is justified. You claim that trichloro(propyl)silane is representative for all registered chlorosilanes, including the registered substance, following repeated oral gavage administration, based on the rapid and complete hydrolysis of all chlorosilanes forming hydrochloric acid (HCl) and the corresponding silanol.

ECHA understands that your read-across approach is solely based on the hypothesis that all chlorosilanes possess corrosive properties in the gastrointestinal tract due to the formation of hydrochloric acid (HCl) and hence can only be tested at doses at which no systemic toxicity would be reached.

With your proposal, you intend to fulfil the information requirements for Annex IX, Section 8.6.2, for a sub-chronic toxicity study and Annex IX, Section 8.7.2 a Pre-natal developmental toxicity study. ECHA stresses that the information requirements of Annex IX, Section 8.6.2 for a sub-chronic toxicity study and Annex IX, Section 8.7.2 a Pre-natal developmental toxicity study address local and systemic effects. Even though your read-across hypothesis focuses on local corrosive properties of the substances under consideration and does not intend to predict systemic properties of the target substance, ECHA has assessed this adaptation according to the provisions of Annex XI, Section 1.5.

In the following, ECHA examines whether the substances have indeed similar properties or that they would follow a regular pattern in their properties, before assessing the scientific validity of your postulation.

(i) Structural (dis)similarities, hydrolysis and their impact on prediction

Structural similarity is a prerequisite for applying the grouping and read-across approach, but ECHA does not accept in general or in this specific case that structural similarity *per se* is sufficient to enable the prediction of human health properties of a substance, since structural similarity does not always lead to predictable or similar human health properties. It has to be justified why such prediction is possible in view of the identified structural differences and the provided evidence has to support such explanation. In particular, the structural similarities must be linked to a scientific explanation of how and why a prediction is possible.

You describe the structural similarities between the target and the source substances in your category report on chlorosilanes by indicating that *"the chlorosilanes (Cl-Si) category includes all substances which contain one or more chlorine atoms attached directly to silicon, with general formula R(4-x)SiClx, where R can be one of more of: H; alkyl group (linear, branched or cyclic; saturated or unsaturated); aryl group; alkyl group with another special functionality in the side chain."*

In the same document you identify the structural basis for the prediction, *i.e.* you postulate that the related substances, including the target and the source substances hydrolyse in similar manner and forming similar hydrolysis products: *"The Si-Cl group hydrolyses very rapidly (half-life typically less than one minute) in contact with water, including atmospheric moisture and biological tissues. The hydrolysis products are hydrogen chloride (HCl) and the corresponding silanol (R(4-x)Si(OH)x)."*.

In your updated read-across justification you also claim that all chlorosilanes hydrolyse rapidly in contact with aqueous media. ECHA observes that your claim is probable due to the chemical nature of chlorosilanes and the substance may hydrolyse rapidly and completely to form hydrochloric acid (HCl) and the corresponding silanol. The probable exposure to HCl may cause local effects in the gastrointestinal tract.

ECHA also observes that both parent substances (*i.e.* the target substance and the source substance) and their commensurate silanol hydrolysis products are different in their alkyl chain attached to the silicon atom.

ECHA notes that you have not provided any information on how the structural differences in the parent substances and consequently in the silanol hydrolysis products may impact the toxicity of the substances and thus affect the possibility to predict properties of the target substance from the data obtained with the source substance. The provided explanation is therefore not sufficient to establish a scientifically credible link between the structural similarity and the prediction.

Further, although you mention in your category document that you aim to address the systemic toxicity of chlorosilanes by using data from non-corrosive analogues in order to circumvent the limitations on the study design associated with the corrosive properties of the substances, ECHA stresses that your dossier does not include documentation of such an approach/attempt.

(ii) Similar properties or regular pattern as a result of structural similarity

Annex XI, Section 1.5. provides that *"substances whose physicochemical, toxicological and eco-toxicological properties are likely to be similar or follow a regular pattern as result of structural similarity may be considered as a group or 'category' of substances"*. One prerequisite for a prediction based on read-across therefore is that the substances involved are structurally similar and are likely to have similar properties. One important aspect in this regard is the analysis of the data matrix to compare the properties of source and target substances and to establish whether indeed they are similar or follow a regular pattern.

You consider that trichloro(propyl)silane is representative for all registered chlorosilanes based on the rapid and complete hydrolysis of all chlorosilanes forming hydrochloric acid (HCl). ECHA points out that common hydrolysis properties of the chlorosilanes does not consitute *per se* an adequate criterion to select a representative substance for the purpose of predicting systemic toxicity properties.

Furthermore, ECHA observes that the toxicological data set in the dossier includes only an acute dose toxicity study with the target substance and no *in vivo* toxicity study is available for the source substance. Thus there is no sufficient information to compare the toxicological profile of the substances with regard of systemic toxicity after repeated exposure and to establish whether the toxicological properties of the source and target substances are likely to be similar or follow a regular pattern.

In the absence of such information, ECHA considers that you have not established that the source substance (trichloro(propyl)silane) is representative of other chlorosilanes including the target substance.

ECHA notes that apart from the HCl other hydrolysis products *i.e.* silanols are also formed during the hydrolysis. The silanol hydrolysis products of the target and source substances are structurally different: hexadecyl-silanetriol is formed from the target substance and silane-propanetriol is formed from the source substance. ECHA points out that in your read-across documentation you do not address the potential impact of systemic exposure to the silanols on systemic toxicological properties of the substances and in turn the impact on the possibility to predict the properties of the target substance from data on the source substance.

Therefore, for the reasons presented above, ECHA concludes that based on the presented information it is not possible to confirm that the substances would have similar properties or they would follow a regular pattern in their systemic toxicological properties.

d. Conclusion on the read-across approach

Based on the above considerations ECHA concludes that you have not provided adequate and reliable information to demonstrate that the proposed read-across approach is plausible for the endpoints in consideration. ECHA therefore concludes that the criteria of Annex XI, Section 1.5, are not met, and consequently the testing proposed on the source substance is not appropriate to fulfil the information requirements of the substance subject to the present decision.

1. Sub-chronic toxicity study (90-day) (Annex IX, Section 8.6.2.)

Pursuant to Article 40(3)(d) and (c) of the REACH Regulation, ECHA may reject a proposed test and require the Registrant to carry out other tests in cases of non-compliance of the testing proposal with Annexes IX, X or XI.

A sub-chronic toxicity study (90 day) is a standard information requirement as laid down in Annex IX, Section 8.6.2. of the REACH Regulation. The information on this endpoint is not available for the registered substance but needs to be present in the technical dossier to meet the information requirements. Consequently there is an information gap and it is necessary to provide information for this endpoint.

You have proposed a test for a 7 days and a conditional 28 days repeated dose toxicity study in rats, via oral route, using the analogue substance trichloro(propyl)silane, (CAS No 141-57-1, EC No 205-489-6).

ECHA has evaluated your proposal to perform the test with the analogue substance. As explained in Section 0 *'Grouping of substances and read-across approach'* of this decision, your adaptation of the information requirements cannot be accepted. Hence there is a need to test the registered substance.

A sub-chronic toxicity study (test method: EU B.26./OECD TG 408) on the registered substance is needed for that purpose.

With respect to the route of administration, ECHA notes that in your initial submission (submission number [redacted]) you have proposed a sub-chronic toxicity (90-day)

study (OECD TG 408) by the oral route. Based on the information provided in the technical dossier and/or in the chemical safety report, ECHA considers that the oral route - which is the preferred one as indicated in ECHA *Guidance on information requirements and chemical safety assessment* (version 4.1, October 2015) Chapter R.7a, Section R.7.5.4.3 - is the most appropriate route of administration. More specifically, the registered substance is a liquid of very low vapour pressure and no uses with spray application are reported that could potentially lead to aerosols of inhalable size. Hence, the test shall be performed by the oral route using the test method EU B.26./OECD TG 408.

According to the test method EU B.26./OECD TG 408 the rat is the preferred species. ECHA considers this species as being appropriate and testing should be performed with the rat.

Testing conditions

You indicate in your justification document that *"the highest dose that can be tested is limited by corrosion of gastrointestinal tract surfaces and therefore experimental animal welfare, and the lowest dose is restricted by the technical feasibility of dosing low volumes of the test substance to rats."*

The experimental data on dichloro(3-chloropropyl)methylsilane (CAS 7787-93-1) ([redacted] 1997) and triacetoxy(ethyl)silane (CAS 17689-77-9) ([redacted] 2004) referred to in your dossier to support your claim that *"local corrosive effects of chlorosilanes in the gastrointestinal tract do occur"* and that *"testing of chlorosilanes in repeated dose toxicity studies via the oral route is unethical and scientifically unjustified"* was generated by testing substances unchanged, without vehicles. ECHA is of the opinion that these testing conditions may have contributed to the development of local lesions in the gastro-intestinal tract in these studies.

Additionally you have provided the acute dose toxicity study via oral route on the target substance (OECD 423; [redacted] 2002), however you acknowledge the absence of macroscopic examinations and clinical observations which you consider as essential. Consequently you conclude that based on this study *"it is not possible to conclude with confidence that there were no signs of corrosion in the gastrointestinal tract"*.
ECHA considers that based on the available data/information provided it cannot be concluded whether or not the registered substance causes local toxicity in the gastrointestinal tract after acute and/or repeated oral administration.

ECHA notes that corrosivity is not an adaptation option, however in accordance with REACH (Annex VII-X preamble) *in vivo* testing with corrosive substances at concentration/dose levels causing corrosivity must be avoided. In order to mitigate the corrosive properties of test materials, technical adjustments to the method of administration of the test material such as use of a vehicle may be used to minimise gastrointestinal irritation. For some substances dietary administration may allow adequate dosing without irritation compared with oral gavage dosing. In certain cases, testing of neutral salts of alkaline or acidic substances may be appropriate and allows investigation of intrinsic properties at adequate dose levels.

ECHA notes, that your dossier does not contain records of any attempt to apply a testing approach which would allow to investigate the hazardous properties of this substance at adequate dose levels as explained above.

Outcome

Therefore, pursuant to Article 40(3)(c) of the REACH Regulation, you are requested to carry out the study with the registered substance subject to the present decision: Sub-chronic toxicity study (90-day) in rats, oral route (test method: EU B.26./OECD TG 408) while your originally proposed test for a 7 days and a conditional 28 days repeated dose toxicity study in rats, via oral route, using the analogue substance trichloro(propyl)silane (CAS No 141-57-1, EC No 205-489-6) is rejected according to Article 40(3)(d) of the REACH Regulation.

Note for your consideration

As explained in Section 0 of the present decision, due to the chemical nature of the substance exposure to HCl cannot be excluded. The technical recommendations for testing corrosive or highly irritating substances presented in ECHA's *Guidance on information requirements and chemical safety assessment* (version 6.0, July 2017) should be taken into account when deciding on the study design of the requested sub-chronic toxicity study (90-day).

A dose range finding study may assist you to identify the maximum tolerated dose of the registered substance which may be used in the requested sub-chronic (90-day) toxicity study.

ECHA notes also that a revised version of OECD TG 408 was adopted this year by the OECD. This revised version contains enhancements of certain endocrine disrupting relevant parameters. You should test in accordance with the revised version of the guideline as published on the OECD website for adopted test guidelines (https://www.oecd-ilibrary.org/environment/oecd-guidelines-for-the-testing-of-chemicals-section-4-health-effects_20745788).

2. Pre-natal developmental toxicity study (Annex IX, Section 8.7.2.) in a first species

Pursuant to Article 40(3)(d) and (c) of the REACH Regulation, ECHA may reject a proposed test and require the Registrant to carry out other tests in cases of non-compliance of the testing proposal with Annexes IX, X or XI.

A pre-natal developmental toxicity study for a first species is a standard information requirement as laid down in Annex IX, Section 8.7.2. of the REACH Regulation. The information on this endpoint is not available for the registered substance but needs to be present in the technical dossier to meet the information requirements. Consequently there is an information gap and it is necessary to provide information for this endpoint.

You have proposed a test for a 7 days and a conditional 28 days repeated dose toxicity study in rats, via oral route, using the analogue substance trichloro(propyl)silane, (CAS No 141-57-1, EC No 205-489-6).

ECHA has evaluated your proposal to perform the test with the analogue substance. As explained in Section 0 *'Grouping of substances and read-across approach'* of this decision, your adaptation of the information requirements cannot be accepted. Hence there is a need to test the registered substance.

Moreover, ECHA considers that neither a 7 days nor a 28 days repeated dose toxicity study is adequate to fulfil the information requirement of Annex IX, Section 8.7.2. of the REACH Regulation. A 7 days or a 28 days dose range finding study does not provide the information

required by Annex IX, Section 8.7.2. because they do not cover key parameters as specified by the OECD TG 414, such as examinations of foetuses for skeletal and visceral alterations. Due to all above mentioned reasons, ECHA concludes that your proposed 7 and/or 28 days studies would not be tailored to real information needs for your registered substance and therefore has to be rejected.

A pre-natal developmental toxicity study (test method EU B.31./OECD TG 414) is needed for that purpose.

With respect to the species selection, ECHA notes that in your initial submission (submission number [redacted]) you proposed testing with the rat as a first species. According to the test method EU B.31./OECD TG 414, the rat is the preferred rodent species and the rabbit the preferred non-rodent species. On the basis of this default consideration, ECHA considers testing should be performed with the rat or rabbit as a first species.

With respect to the route of administration, ECHA notes that in your initial submission (submission number [redacted]) you have proposed a pre-natal developmental toxicity study (test method EU B.31./OECD TG 414) via oral route. ECHA agreed with you that the oral route is the most appropriate route of administration for substances except gases to focus on the detection of hazardous properties on reproduction as indicated in ECHA *Guidance on information requirements and chemical safety assessment* (version 4.1, October 2015) R.7a, chapter R.7.6.2.3.2. Since the substance to be tested is a liquid, ECHA concludes that testing should be performed by the oral route.

Consideration presented in Section 1 above regarding "Testing conditions" are fully applicable for the current request.

Outcome

Therefore, pursuant to Article 40(3)(c) of the REACH Regulation, you are requested to carry out the study with the registered substance subject to the present decision: Pre-natal developmental toxicity study in a first species (rats or rabbits), oral route (test method: EU B.31./OECD TG 414) while your originally proposed test for a 7 days and a conditional 28 days repeated dose toxicity study in rats, via oral route, using the analogue substance trichloro(propyl)silane (CAS No 141-57-1, EC No 205-489-6) is rejected according to Article 40(3)(d) of the REACH Regulation.

Notes for your consideration

For the selection of the appropriate species you are advised to consult ECHA *Guidance on information requirements and chemical safety assessment* (version 4.1, October 2015), Chapter R.7a, section R.7.6.2.3.2.

As explained in Section 0 of the present decision, due to the chemical nature of the substance exposure to HCl cannot be excluded. The technical recommendations for testing corrosive or highly irritating substances presented in ECHA's *Guidance on information requirements and chemical safety assessment* (version 6.0, July 2017) should be taken into account when deciding on the study design of the requested pre-natal developmental toxicity study.

A dose range finding study may assist you to identify the maximum tolerated dose of the registered substance which may be used in the requested pre-natal developmental toxicity study.

ECHA notes also that a revised version of OECD TG 414 was adopted this year by the OECD. This revised version contains enhancements of certain endocrine disrupting relevant parameters. You should test in accordance with the revised version of the guideline as published on the OECD website for adopted test guidelines (https://www.oecd-ilibrary.org/environment/oecd-guidelines-for-the-testing-of-chemicals-section-4-health-effects_20745788).

Appendix 2: Procedural history

ECHA received your registration containing the testing proposal(s) for examination pursuant to Article 40(1) on 18 April 2013.

ECHA held a third party consultation for the testing proposal(s) from 25 June 2015 until 10 August 2015. ECHA did not receive information from third parties.

The decision making followed the procedure of Articles 50 and 51 of the REACH Regulation, as described below:

ECHA notified you of the draft decision and invited you to provide comments. In your comments to the draft decision you did not provide specific considerations to the endpoint subject to the current decision.

You were notified that the draft decision does not take into account any updates after 06 July 2016, 30 calendar days after the end of the commenting period.

However, following your request and justification provided (including interlinked read-across testing strategy on several supposedly related registered substances) ECHA has exceptionally granted you additional time until 30 June 2017 for the update.

You updated your registration on 26 June 2017. ECHA took the information in the updated registration into account, and amended the draft decision.

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

As no amendments were proposed, ECHA took the decision according to Article 51(3) of the REACH Regulation.

Appendix 3: Further information, observations and technical guidance

1. This decision does not imply that the information provided in your registration dossier is in compliance with the REACH requirements. The decision does not prevent ECHA from initiating a compliance check on the registration at a later stage.

2. Failure to comply with the request(s) in this decision, or to fulfil otherwise the information requirement(s) with a valid and documented adaptation, will result in a notification to the Enforcement Authorities of the Member States.

3. In relation to the information required by the present decision, the sample of the substance used for the new test(s) must be suitable for use by all the joint registrants. Hence, the sample should have a composition that is suitable to fulfil the information requirement for the range of substance compositions manufactured or imported by the joint registrants. It is the responsibility of all joint registrants who manufacture or import the same substance to agree on the appropriate composition of the test material and to document the necessary information on their substance composition. In addition, it is important to ensure that the particular sample of the substance tested in the new test(s) is appropriate to assess the properties of the registered substance, taking into account any variation in the composition of the technical grade of the substance as actually manufactured or imported by each registrant. If the registration of the substance by any registrant covers different grades, the sample used for the new test(s) must be suitable to assess these grades. Finally there must be adequate information on substance identity for the sample tested and the grade(s) registered to enable the relevance of the test(s) to be assessed.