EUROPEAN CHEMICALS AGENCY

Decision number: TPE-D-0000003734-72-05/F Helsinki, 19 February 2014

DECISION ON A TESTING PROPOSAL SET OUT IN A REGISTRATION PURSUANT TO ARTICLE 40(3) OF REGULATION (EC) NO 1907/2006

For Asphalt, oxidized, CAS No 64742-93-4 (EC No 265-196-4), registration number: [redacted]

Addressee: [redacted]

The European Chemicals Agency (ECHA) has taken the following decision in accordance with the procedure set out in Articles 50 and 51 of Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH Regulation).

I. Procedure

Pursuant to Article 40(1) of the REACH Regulation, ECHA has examined the following testing proposals submitted as part of the registration dossier in accordance with Articles 10(a)(ix) and 12(1)(e) thereof for Asphalt, oxidized, CAS No 64742-93-4 (EC No 265-196-4), by [redacted] (Registrant):

- Prenatal Developmental Toxicity Study (OECD Guideline 414), in rats, inhalation route using liquid condensate collected from the headspace of a heated tank of severely oxidized asphalt; and
- Two-Generation Reproduction Toxicity Study (OECD Guideline 416), in rats, inhalation route using liquid condensate collected from the headspace of a heated tank of severely oxidized asphalt.

The present decision relates to the examination of the testing proposal for pre-natal developmental toxicity study. The testing proposal for the two-generation reproductive toxicity study is addressed in a separate decision although both testing proposals were initially addressed together in the same draft decision.

This decision is based on the registration dossier as submitted with submission number [redacted], for the tonnage band of 1000 tonnes or more per year. In order to follow the procedure outlined in Articles 50(1) and 51 of the REACH Regulation and to allow ECHA to complete the necessary administrative practices for the referral to Competent Authorities of the Member States, ECHA has taken into consideration dossier updates pertinent to the decision received by the deadline of 03 December 2012 agreed between ECHA and the Registrant.

This decision does not imply that the information provided by the Registrant in his 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.

On 26 October 2010, pursuant to Article 40(1) of the REACH Regulation, ECHA initiated the examination of the testing proposals set out by the Registrant in the registration dossier for the substance mentioned above.

ECHA held a third party consultation for the testing proposals from 16 August 2011 until 30 September 2011. ECHA did receive information from third parties (see section III below).

On 12 October 2012 ECHA sent the draft decision to the Registrant and invited him to provide comments within 30 days of the receipt of the draft decision.

By 12 November 2012 ECHA received comments from the Registrant to ECHA's draft decision. In his comments the Registrant indicated his intention to address issues outlined in the draft decision and to submit an updated dossier.

On 3 December 2012 the Registrant updated his registration dossier.

On 3 December 2012 there was a change of the Lead Registrant.

ECHA considered the Registrant's comments received and the updated registration dossier. On that basis, Section II was amended and the Statement of Reasons (Section III) was changed accordingly.

On 1 August 2013 ECHA notified the Competent Authorities of the Member States of its draft decision and invited them pursuant to Article 51(1) of the REACH Regulation to submit proposals to amend the draft decision within 30 days of the receipt of the notification.

Subsequently, Competent Authorities of the Member States submitted proposals for amendment to the draft decision.

On 6 September 2013 ECHA notified the Registrant of proposals for amendment to the draft decision and invited him pursuant to Article 51(5) of the REACH Regulation to provide comments on those proposals for amendment within 30 days of the receipt of the notification.

ECHA reviewed the proposals for amendment received and did not amend the draft decision.

The draft decision was split into two draft decision documents: one relating to the testing proposal for a two-generation reproductive toxicity study and one relating to the testing proposal for pre-natal developmental toxicity study.

On 16 September 2013 ECHA referred the draft decision to the Member State Committee.

By 7 October 2013 the Registrant provided comments on the proposed amendments. The Member State Committee took the comments to the Registrant into account.

After discussion in the Member State Committee meeting on 4-8 November 2013, a unanimous agreement of the Member State Committee on the draft decision relating to the testing proposal for pre-natal developmental toxicity study as modified at the meeting was reached on 8 November 2013. ECHA took the decision pursuant to Article 51(6) of the REACH Regulation

II. Testing required

The Registrant shall carry out the following proposed test pursuant to Article 40(3)(a) of the REACH Regulation using the indicated test methods and the substance subject to the present decision Asphalt, oxidized, CAS No 64742-93-4 (EC No 265-196-4):

Pre-natal developmental toxicity study in rat or rabbit, inhalation route (Annex IX, 8.7.2.; test method: EU B.31/OECD 414).

Pursuant to Articles 40(4) and 22 of the REACH Regulation, the Registrant shall submit to ECHA by **19 December 2016** an update of the registration dossier containing the information required by this decision.

Data from a second pre-natal developmental toxicity study on another species is a standard information requirement according to Annex X, 8.7.2. of the REACH Regulation. The Registrant should firstly take into account the outcome of the pre-natal developmental toxicity on a first species and all other relevant available data to determine if the conditions are met for adaptations according to Annex X, 8.7. column 2, or according to Annex XI. If the Registrant considers that testing is necessary to fulfill this information requirement, he should include in the update of his dossier a testing proposal for a pre-natal developmental toxicity study on a second species.

At any time, the Registrant shall take into account that there may be an obligation to make every effort to agree on sharing of information and costs with other Registrants.

III. Statement of reasons

The decision of ECHA is based on the examination of the testing proposal submitted by the Registrant for the substance subject to the present decision and scientific information submitted by third parties.

1. Pre-natal developmental toxicity study

a) Examination of the testing proposal

Pursuant to Article 40(3)(a) of the REACH Regulation, ECHA may require the Registrant to carry out the proposed test.

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.

The Registrant has therefore submitted a testing proposal for pre-natal developmental toxicity study (test method EU B.31/OECD 414) to fulfil the information requirements. The Registrant proposes that the test is to be performed on rat by the inhalation route with liquid condensate collected from the headspace of a heated tank of severely oxidized asphalt.

According to the test method EU B.31/OECD 414, the rat is the preferred rodent species, the rabbit the preferred non-rodent species. ECHA considers this default parameter appropriate and testing should be performed with the rat or the rabbit as a first species to be used.

The Registrant did not propose to test the complete substance. Instead, he proposed to test a condensate from the fumes that are produced by heating the substance. The condensates are then to be tested via inhalation, because human exposure to the constituents in these condensates occurs mostly through inhalation of emissions from hot oxidized asphalt. Moreover, the Registrants points out that it is technically not feasible to test the complete substance via the oral or the dermal route or via inhalation, due to it physicochemical properties. The Registrant states: "*oxidized asphalts are non-volatile at ambient temperature and are only soluble in a limited range of hydrocarbon solvents. Their high molecular weight and insoluble nature means it is technically infeasible to test oxidized asphalt as such by the oral, dermal or inhalation routes. For use and application, oxidised asphalt is heated to temperatures in the range 180-230°C, at which small amounts of lower molecular weight constituents are released to atmosphere, forming a mix of hydrocarbon vapour and condensation aerosol droplets. The Registrant proposed conducting the reproductive and developmental toxicity studies by inhalation, since exposure to emissions from hot oxidized asphalt is the major route of occupational exposure. Emissions contain a large number of organic constituents. The boiling point range of condensed emissions from oxidized asphalt collected at work sites has been reported to be in the range 170 - 440°C, indicating potential for exposure to emissions of hydrocarbons with carbon numbers in the range of C10 to C30. The emissions are known to comprise approximately 70% of straight and branched chain aliphatics, monocycloparaffins, and alkylbenzenes, the remaining 30% comprising a mixture of polycyclic aromatic hydrocarbons (PAHs), with the majority being alkylated 2 and 3 ring compounds".*

In light of the information provided by the Registrant, ECHA considers that testing via the inhalation route of the condensate of vapours produced by the heating of the substance as described in the Registrant's proposal is appropriate. ECHA points out that the composition of the condensates tested should reflect the composition of the fumes that are produced under the conditions of practical use, in such a way that an underestimation of hazard is prevented.

b) Consideration of the information received during third party consultation

ECHA received third party information concerning the testing proposal during the third party consultation. For the reasons explained further below the information provided by third parties is not sufficient to fulfil this information requirement.

A third party acting on behalf of the Registrant provided clarification on the substance to be tested. This third party also noted that this information would be corrected in updated registration dossiers. On 3 December 2012 ECHA received an updated registration dossier on the substance subject to the present decision including sufficiently detailed explanations on the sample selection and characterisation of the test substance. ECHA considered the information provided and amended the draft decision accordingly.

In addition, the third party proposed an alternative testing strategy under which this endpoint is suggested to be covered by an extension of the two generation reproductive toxicity study to include additional groups of animals addressing the developmental toxicity endpoint. In response ECHA notes, that the third party has proposed a strategy for ECHA to consider before further tests on animals are requested. However, third parties were invited, as specified by Article 40(2) of the REACH Regulation to submit "scientifically valid information and studies that address the relevant substance and hazard end-point, addressed by the testing proposal". As the proposal for a strategy as such cannot be regarded information or studies, ECHA concludes that this is not a sufficient basis to fulfil the data/information requirement.

Additionally, ECHA notes that an extension of the two generation reproductive toxicity study to include additional group of animals addressing the developmental toxicity may give further information on developmental toxicity but might not fulfil the requirement for a pre-natal developmental toxicity study (test method: B.31/OECD 414). For example, different dose levels in the two-generation study and the pre-natal developmental toxicity study might be required, dosing before mating (as performed in the two-generation study) might have an impact on the findings in the pre-natal developmental toxicity study and additional group to address developmental toxicity would not save animals. Therefore, ECHA sees no benefit to combine these studies.

c) Outcome

Therefore, pursuant to Article 40(3)(a) of the REACH Regulation, the Registrant is required to carry out the proposed study: Pre-natal developmental toxicity study in rat or rabbit, inhalation route (test method: EU B.31/OECD 414) using the substance subject to the present decision: Asphalt, oxidized, CAS No 64742-93-4 (EC No 265-196-4). The sample of the registered substance to be tested shall be chosen and reported on in accordance with the specific requirements outlined in Section IV below.

d) Notes for consideration by the Registrant

In addition, a pre-natal developmental toxicity study on a second species is part of the standard information requirements as laid down in Annex X, section 8.7.2. for substances registered for 1000 tonnes or more per year (see sentence 2 of introductory paragraph 2 of Annex X).

When considering the need for a testing proposal for a prenatal developmental toxicity study in a second species, the Registrant should take into account the outcome of the pre-natal developmental toxicity study on the first species and all available data to determine if the conditions are met for adaptations according to Annex X, 8.7. column 2, or according to Annex XI; for example if the substance meets the criteria for classification as toxic for reproduction Category 1B: May damage the unborn child (H360D), and the available data are adequate to support a robust risk assessment, or alternatively, if Weight of Evidence assessment of all relevant available data provides scientific justification that the study in a second species is not needed. If the Registrant considers that the conditions for adaptations are not fulfilled, he should include in the update of his dossier a testing proposal for a pre-natal developmental toxicity study on a second species. If the Registrant comes to the conclusion that the conditions for these adaptations can be fulfilled, he should update his technical dossier by clearly stating the reasons for proposing to adapt the standard information requirement of Annex X, 8.7.2. of the REACH Regulation.

2. Deadline for submitting the information

In the updated dossier the Registrant asked for an extension of the deadline for submitting the requested information. The Registrant's justification for this request was that firstly, 24 months would be needed in order to perform a pre-natal developmental toxicity study (OECD 414) and a reproductive toxicity study (OECD 416) and secondly, an additional 22 months period would be needed for sample selection and characterization; workplace exposure monitoring; and emission condensate collection and validation. ECHA evaluated the justification provided and decided to change the deadline from 30 months to 46 months.

In the draft decision communicated to the Registrant the time indicated to provide the requested information was 46 months from the date of adoption of the decision. This period of time took into account the fact that the draft decision also requested a reproductive toxicity study according to the standard information requirement of Annex X, 8.7.3 of the REACH Regulation. As the testing proposal for this study is not addressed in the present draft decision, ECHA considers that a reasonable time period for performing the required test is 12 months. Therefore, ECHA changed the deadline from 46 months to 34 months. ECHA amended the decision accordingly.

IV. Adequate identification of the composition of the tested material

The process of evaluation of testing proposals set out in Article 40 of the REACH Regulation aims at ensuring that the new studies meet real information needs. Within this context, the Registrant's dossier was sufficient to confirm the identity of the substance to the extent necessary for evaluation of the testing proposal. The Registrant must note, however, that this information, or the information submitted by other registrants of the same substance, has not been checked for compliance with the substance identity requirements set out in Section 2 of Annex VI of the REACH Regulation.

In relation to the proposed tests, the sample of substance used for the new studies must be suitable for use by all the joint registrants. Hence, the sample should have a composition that is within the specifications of the substance composition that are given by the joint registrants. It is the responsibility of all joint registrants of the same substance to agree to the tests proposed (as applicable to their tonnage level) and to document the necessary information on their substance composition.

In addition, it is important to ensure that the particular sample of substance tested in the new studies is appropriate to assess the properties of the registered substance and does not lead to an underestimation of the hazards, taking into account any variation in the composition of the technical grade of the substance as actually manufactured by each registrant. If the registration of the substance by any registrant covers different grades, the sample used for the new studies must be suitable to assess these grades.

Finally there must be adequate information on substance identity for the sample tested and the grades registered to enable the assessment of the relevance of the studies. In particular, given the intrinsic compositional variability of the registered substance, information as specified below has to be provided:

a) Detailed information on the composition of the sample tested using best available analytical techniques such as, for instance, two dimensional gas chromatography (GC-GC): this must include information on the identity and concentration of the constituents. In reporting, the chemical composition, both individual constituents of relevance for the study as well as "major hydrocarbon classes" should be presented. Regarding the characterisation of the PAH, a detailed analysis of the PAH chemical identities and concentrations in the test material and the substance subject to the present decision shall be provided to allow substantiation of the Registrant's hypothesis that the types of PAHs suggested to cause reproductive toxicity are indeed likely to cause reproductive toxicity as observed in the proposed test;

b) An explanation why the composition of the sample tested represents the composition of the substance subject to the present decision;

c) As the Registrant did not propose to test the complete manufactured substance, but a condensate from the fumes that are generated by heating the substance, he should demonstrate based on the detailed analytical composition on the test material and the intrinsic variability of the substance subject to the present decision that the sample selected for testing does not result in an underestimation of hazard.

V. General requirements for the generation of information and Good Laboratory Practice

ECHA reminds registrants of the requirements of Article 13(4) of the REACH Regulation that ecotoxicological and toxicological tests and analyses shall be carried out in compliance with the principles of good laboratory practice (GLP).

According to Article 13(3) of the REACH Regulation, tests that are required to generate information on intrinsic properties of substances shall be conducted in accordance with the test methods laid down in a Commission Regulation or in accordance with other international test methods recognised by the Commission or the European Chemicals Agency as being appropriate. Thus, the Registrant shall refer to Commission Regulation (EC) No 440/2008 laying down test methods pursuant to Regulation (EC) No 1907/2006 as adapted to technical progress or to other international test methods recognised as being appropriate and use the applicable test methods to generate the information on the endpoints indicated above.

VI. Information on right to appeal

An appeal may be brought against this decision to the Board of Appeal of ECHA under Article 51(8) of the REACH Regulation. Such appeal shall be lodged within three months of receiving notification of this decision. Further information on the appeal procedure can be found on the ECHA's internet page at http://echa.europa.eu/appeals/app_procedure_en.asp. The notice of appeal will be deemed to be filed only when the appeal fee has been paid.

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