

Decision number: CCH-D-0000004684-68-04/F

Helsinki, 31 July 2014

DECISION ON A COMPLIANCE CHECK OF A REGISTRATION PURSUANT TO ARTICLE 41(3) OF REGULATION (EC) NO 1907/2006**For Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., CAS No 85536-14-7 (EC No 287-494-3), 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 41(1) of the REACH Regulation ECHA has performed a compliance check of the registration for Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs., CAS No 85536-14-7 (EC No 287-494-3), submitted by [REDACTED] (Registrant). The scope of this compliance check is limited to the standard information requirements of Annex VI, Section 2 of the REACH Regulation.

This decision is based on the registration as submitted with submission number [REDACTED], for the tonnage band of 1000 tonnes or more per year. This decision does not take into account any updates submitted after 6 March 2014, the date upon which ECHA notified its draft decision to the Competent Authorities of the Member States pursuant to Article 51(1) of the REACH Regulation.

This compliance check decision does not prevent ECHA from initiating further compliance checks on the present registration at a later stage.

The compliance check was initiated on 29 October 2013.

On 19 December 2013 ECHA sent the draft decision to the Registrant and invited him to provide comments within 45 days of the receipt of the draft decision. That draft decision was based on submission number [REDACTED].

By 3 February 2014 ECHA did not receive comments from the Registrant.

On 6 March 2014 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 for amendment of the draft decision within 30 days of the receipt of the notification.

As no proposal for amendment was submitted, ECHA took the decision pursuant to Article 51(3) of the REACH Regulation.

II. Information required

A. Information in the technical dossier related to the identity of the substance

Pursuant to Articles 41(1), 41(3), 10(a)(ii) and Annex VI, Section 2 of the REACH Regulation the Registrant shall submit the following information for the registered substance subject to the present decision:

1. Name or other identifier of the substance (Annex VI, 2.1.), as further specified under section III.A.1;
2. Composition of the substance (Annex VI, 2.3.), as further specified under section III.A.2;
3. High-pressure liquid chromatogram, gas chromatogram (Annex VI, 2.3.6.), as further specified under section III.A.3;
4. Description of the analytical methods (Annex VI, 2.3.7.), as further specified under section III.A.4.

Pursuant to Article 41(4) of the REACH Regulation the Registrant shall submit the information in the form of an updated registration to ECHA by **8 December 2014**.

III. Statement of reasons

Based on the examination of the technical dossier, ECHA concludes that the information therein does not comply with the requirements of Article 10 of the REACH Regulation and Annex VI thereof. Consequently, the Registrant is requested to submit the information mentioned above that is needed to bring the registration into compliance with the relevant information requirements.

A. Information in the technical dossier related to the identity of the substance

Pursuant to Article 10(a)(ii) of the REACH Regulation, the technical dossier shall contain information on the identity of the substance as specified in Annex VI, Section 2 of the REACH Regulation. In accordance with Annex VI, Section 2 the information provided shall be sufficient to enable the identification of the registered substance.

1. Name or other identifier of the substance (Annex VI, 2.1.)

ECHA notes that the Registrant has not provided sufficient information to identify the substance, as required by Annex VI, Section 2.1 of the REACH Regulation. Based on the information included in Section 1.1 and 3.1 of the dossier, it is not possible to unambiguously establish the identity of the substance registered.

The Registrant identified the registered substance as of **Unknown** or **Variable** composition, **Complex** reaction products or **Biological** materials (UVCB). The naming of UVCB substances shall consist of two parts: the chemical name and the more detailed description of the manufacturing process, as indicated in chapter 4.3 of the Guidance for identification and naming of substances under REACH and CLP (Version: 1.2, March 2012) - referred to as "the Guidance" thereafter. According to the Guidance, the description of the manufacturing process shall include information on the chemical identity of the starting materials and information on the most relevant steps of the process. ECHA observes that the Registrant did not provide sufficient information on the manufacturing process description to allow for an accurate and complete identification of the registered substance,

as explained hereinafter.

More specifically, the manufacturing process descriptions provided in IUCLID sections 1.1 and 3.1 do not sufficiently describe the identity of the starting materials, the ratio of the reactants and the relevant process parameters and steps.

The Registrant provided the chemical name "Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs." for the registered substance and described in Section 3.1 of the IUCLID dossier the manufacturing process to consist of "[REDACTED]", followed by "[REDACTED]". However, the Registrant did not specify further the exact identity, including the composition of the linear alkylbenzene effectively used in the process. As the composition of this reagent is one of the major factors determining the composition of the registered substance, compositional information of this starting material is a necessary element for its identification and therefore for the identification of the registered substance itself.

Furthermore, the chemical name provided in Section 1.1 and the description of the manufacturing process in Section 3.1 do not contain any indications about the ratio of reactants and do not specify the manufacturing process steps and parameters which are necessary to obtain the registered substance. Specification of the ratio of reactants and identification of any other steps and process parameters that may affect the substance composition is essential for the identification of the registered substance

ECHA therefore concludes that the manufacturing process has not been provided to a sufficient level of detail to unambiguously identify the registered UVCB substance.

In line with the above observations and pursuant to Article 41(1) and (3) of the REACH Regulation, the Registrant is requested to submit the missing information on the manufacturing process description. This information shall include:

- Information on the identity, and in particular the composition of the "Linear Alkyl Benzene" starting material in terms of the concentration ranges of the groups of constituents presenting the same alkyl substituent carbon chain length (for example C10-alkyl benzenes, C11-alkyl benzenes, etc.), as well as information on the relative content of the individual isomers within a specific group of constituents (for example for C10-alkyl benzenes the distribution between 2, 3, 4, 5-phenyl C10 alkanes), and
- Ratio of reactants, and
- Specifications of all relevant process parameters, including temperatures and pressures, and any other process steps and their parameters including purification step(s) (if any) which are necessary to obtain the registered substance and which may affect the substance composition, and
- Information on the selectivity control of the sulfonation step towards specific alkylbenzene substitution with the sulfonic group.

If the substance covered by the registration is manufactured according to different manufacturing processes, including the use of different sources, then the detailed description of the manufacturing process required hereinabove shall be reported separately for each manufacturing process. A manufacturing process may be considered different when the processing steps and/or processing parameters are different.

The Registrant shall note that substances manufactured according to different manufacturing processes may indicate multiple substances and consequently the requirement for multiple registrations.

As for the reporting of the requested information, the more detailed description of the manufacturing process should be included in the description field in section 1.1 of the IUCLID dossier.

2. Composition of the substance (Annex VI, 2.3.)

The substance composition corresponds to the chemical representation of what the substance consists of and is therefore an essential part of substance identification and the cornerstone of all the REACH obligations.

ECHA notes that the registration does not contain sufficient and appropriate information for establishing the composition of the registered UVCB substance and therefore its identity, as required under Annex VI, section 2.3. of the REACH Regulation.

In particular, the reported composition refers to groups of constituents defined according to the carbon chain length of the alkyl substituent (e.g. "[decan-(2 to 5)-yl] benzenesulfonate acid"), sulfuric acid and a constituent identified as "Unreacted organic raw material" along with their typical concentrations. On the basis of the chemical name of the registered substance, the alkyl benzenesulfonic acid constituents are para-substituted regarding the positions of the sulfonic acid groups and the alkyl substituents. The para-substitution is also confirmed by the ¹³C-NMR spectral results attached in section 1.4 (attachment "██████████") However, the names given for the alkyl benzenesulfonic acid constituents do not specify the para-substitution and no structural formulas are provided. Therefore, the identity information given for the alkyl benzenesulfonic acid groups of constituents is not sufficient to identify them unequivocally.

Furthermore, the Registrant did not provide information on the concentration ranges for the constituents/groups of constituents included in the composition. In line with the chapter 4.3 of the Guidance, the Registrant should note that, for each constituent or group of constituents, the typical, minimum and maximum concentration levels shall be specified. In addition, all constituents present in the substance with a concentration of ≥10 %, as well as those relevant for the classification and/or PBT assessment cannot be reported as a group, but shall be identified and reported individually.

Information on the distribution of individual positional isomers for each group of constituents has also not been provided although the individual isomers, as known constituents, should be reported following section 4.3.1.1 of the Guidance. This information is important in order to understand the variability of the composition of the registered substance.

Furthermore, ECHA notes also that the analytical information included in section 1.4 reports a constituent identified as "██████████" or "██████" which has not been reported in section 1.2.

ECHA therefore concludes that the composition of the registered substance has not been sufficiently specified.

The Registrant is accordingly requested pursuant to Article 41(1) and (3) of the REACH Regulation, to revise the information on the composition of the registered substance in order to establish a precise chemical representation of what the substance consists of. The names for the alkyl benzenesulfonic acid groups of constituents shall be revised to be specific for the para-substitution (i.e. "4-[decan-(2 to 5)-yl] benzenesulfonate acid" instead

of “[decan-(2 to 5)-yl] benzenesulfonate acid”), and representative structural formulas shall be given. Information shall be given on the concentration ranges (minimum and maximum) for each carbon number (i.e. C10, C11, C12 and C13 corresponding to the groups of constituents defined according to the carbon chain length of the alkyl substituent), as well as for the other constituents. Information shall also be provided on the distribution of individual positional isomers for each alkyl benzenesulfonic acid group of constituents. Furthermore, all constituents present in the substance with a concentration of $\geq 10\%$, all other known constituents/groups of constituents in addition to the linear alkyl benzenesulfonic acids, as well as those relevant for the classification and/or PBT assessment shall be identified and reported individually.

The concentration range values must be representative for the registered substance as manufactured and it shall be clarified how the minimum and maximum values for each group of constituents were obtained (i.e. information on the batch selection, sampling procedure, the measured values, calculations used etc.). Without this information ECHA is not able to conclude on the representativeness of these values.

Where the Registrant covers different grades of the substance in the registration, the Registrant shall report separately the compositional information of each grade. This means that if the substance covered by the registration has two (or more) different compositions, then these must be presented separately. ECHA highlights that failure to report separately the compositional information of each grade of a substance may result in one or more grades not being covered by this registration.

Regarding how to report the composition of the registered substance in IUCLID, the following applies: The Registrant shall indicate the composition of the registered substance in IUCLID Section 1.2. For each constituent required to be reported individually, the IUPAC name, CAS name and CAS number (if available), molecular and structural formula, as well as the minimum, maximum and typical concentration, shall be reported in the appropriate fields in IUCLID. For the other constituents to be reported under a generic description, a generic chemical name describing the group of constituents, generic molecular and structural information (if applicable), as well as the minimum, maximum and typical concentration, shall be reported in the appropriate fields in IUCLID.

The information on the concentration levels of individual positional isomers (i.e. 2, 3, 4, 5-phenyl C10 alkanes; 2, 3, 4, 5, 6 - phenyl C11 and C12 alkanes and 2, 3, 4, 5, 6, 7- phenyl C13 alkanes) present in the substance composition shall be specified in the “Remarks” field of each group of constituents.

Information on how to report several compositions in IUCLID is specified in paragraph 2.3, Q&A8 of the “Data Submission Manual – Part 18: How to report the substance identity in IUCLID 5 for registration under REACH” (version: 2.0, July 2012), available on the ECHA website.

3. High-pressure liquid chromatogram, gas chromatogram (Annex VI, 2.3.6.)

ECHA observes that the Registrant has not included sufficient chromatographic data as required by Annex VI, Section 2.3.6. of the REACH Regulation for the identification and quantification of the registered substance.

More specifically, the main groups of constituents were quantified by mass spectrometry (MS) without prior separation of the constituents e.g. by chromatography. However, the

information provided is not sufficient for the identification and quantification of the substance as ECHA notes that the Registrant did not attach:

- (i) A chromatogram acquired using high performance liquid chromatography (HPLC) or gas chromatography (GC),
- (ii) The relevant chromatographic results (i.e. peak table including retention times, peak area % and allocation of the peaks) and the derived quantification of the constituent(s) of the substance.

These results are required to enable to identify and quantify the constituent(s) of the substance and therefore its identification.

Accordingly, pursuant to Article 41(1) and (3) of the REACH Regulation, the Registrant is requested to submit the following information derived from the registered substance subject to the present decision: an appropriate chromatogram and the required chromatographic data (retention times, peak areas/results and quantifications) as specifically explained above. This information shall be sufficient for the identification and quantification of the constituent(s) of the substance.

The Registrant shall ensure that the description of the analytical methods used for the recording of the chromatographic data is specified in the dossier, in line with the requirements under Annex VI section 2.3.7. This information shall be sufficient for the methods to be reproduced and shall therefore include details of the experimental protocol followed, any calculation made and the results obtained.

As for the reporting of the chromatographic data in the registration dossier, the information should be included in IUCLID section 1.4.

4. Description of the analytical methods (Annex VI, 2.3.7)

ECHA notes that the Registrant has not provided sufficient information on the analytical methods used to determine the composition of the registered substance, as required by Annex VI, Section 2.3.7. of the REACH Regulation.

The Registrant has not included a sufficient description of the quantitative analysis that would provide an overview of the composition of the registered substance (i.e. chromatographic results or other method which can reflect the compositional information in section 1.2). As indicated in section III.A.3 the main groups of constituents were quantified by mass spectrometry (MS) without prior separation of the constituents e.g. by chromatography. The results obtained from this analysis only relate to the overall groups, for example to all C10-alkyl benzenesulfonic acids together, and no information was given for the concentrations of the individual positional isomers within each group. Furthermore, the analytical report includes for the MS results the remark that [REDACTED].

ECHA therefore concludes that the Registrant did not provide sufficient information on the description of the analytical methods used for quantification of the composition of the registered substance. In the absence of this information, the composition of the registered substance cannot be verified.

Accordingly, pursuant to Article 41(1) and (3) of the REACH Regulation, the Registrant is requested to provide detailed description of the analytical method(s) used for identification and quantification of the registered substance including the constituents present. The

results shall include information on the groups of constituents based on the alkyl group chain length and also on the individual positional isomers within each group as well as on other constituents required to be reported in the composition. The description shall be sufficient for the methods to be reproduced and shall therefore include details of the experimental protocol followed, any calculation made and the results obtained.

For chromatographic methods, the information shall include sample preparation, the chromatographic separation method (column, detector, temperature gradient), details on how each constituent was identified and a legible print-out of the chromatogram as well as the report from the chromatographic analysis including the table of peak assignments that report the peak areas and corresponding amounts of each relevant constituent/group of constituents. In addition, the Registrant shall ensure that the composition reported in Section 1.2 is in line with the information provided in Section 1.4, which shall be sufficient to identify and quantify the substance.

As for the reporting of the method descriptions in the dossier, the information should be attached in Section 1.4 of the IUCLID Dossier.

IV. 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 an appeal shall be lodged within three months of receiving notification of this decision. Further information on the appeal procedure can be found on ECHA's internet page at <http://www.echa.europa.eu/regulations/appeals>. The notice of appeal will be deemed to be filed only when the appeal fee has been paid.



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