ECHA
EUROPEAN CHEMICALS AGENCY

Decision number: CCH-D-2114294824-37-01/F Helsinki, 31 March 2015

DECISION ON A COMPLIANCE CHECK OF A REGISTRATION PURSUANT TO ARTICLE 41(3) OF REGULATION (EC) NO 1907/2006

For oxalic acid, CAS No 144-62-7 (EC No 205-634-3), 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 oxalic acid, CAS No 144-62-7 (EC No 205-634-3), submitted by [redacted] (Registrant).

This decision is based on the registration as submitted with submission number [redacted], for the tonnage band of 1000 tonnes or more tonnes per year. This decision does not take into account any updates submitted after 30 October 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 2 August 2013.

On 10 December 2013 ECHA sent the draft decision to the Registrant and invited him to provide comments within 30 days of the receipt of the draft decision. That draft decision was based on submission number [redacted]

By 24 January 2014 the Registrant did not provide any comments on the draft decision to ECHA.

On 19 May 2014 the Registrant updated his registration dossier with the submission number [redacted]

The ECHA Secretariat considered the Registrant's update. On basis of this information, Section II was amended. The Statement of Reasons (Section III) was changed accordingly.

On 30 October 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.

Subsequently, proposals for amendment to the draft decision were submitted.

On 5 December 2014 ECHA notified the Registrant of the proposals for amendment to the draft decision and invited him pursuant to Article 51(5) of the REACH Regulation to provide comments on the proposals for amendment within 30 days of the receipt of the notification.

The ECHA Secretariat reviewed the proposals for amendment received and amended the draft decision.

On 15 December 2014 ECHA referred the draft decision to the Member State Committee.

By 5 January 2015 in accordance to Article 51(5), the Registrant did not provide comments on the proposals for amendment but provided comments on the draft decision. The Member State Committee did not take into account the Registrant's comments on the draft decision as they were not related to the proposals for amendment made and are therefore considered outside the scope of Article 51(5).

A unanimous agreement of the Member State Committee on the draft decision was reached on 19 January 2015 in a written procedure launched on 9 January 2015.

ECHA took the decision pursuant to Article 51(6) of the REACH Regulation.

II. Information required

A. Information in the technical dossier derived from the application of Annexes VII to XI

Pursuant to Articles 41(1), 41(3), 10(a)(vi) and/or (vii), 12(1)(e), 13 and Annexes VII to X of the REACH Regulation the Registrant shall submit the following information using the indicated test methods and the registered substance subject to the present decision:

1. *In vitro* gene mutation study in mammalian cells (Annex VIII, 8.4.3.; test method: EU B.17./OECD 476);
2. Sub-chronic toxicity study (90-day), oral route (Annex IX, 8.6.2.; test method: EU B.26./OECD 408) in rats;
3. Pre-natal developmental toxicity study (Annex IX, 8.7.2.; test method: EU B.31./OECD 414) in rats or rabbits, oral route;
4. Growth inhibition study aquatic plants (Annex VII, 9.1.2.; test method: Alga, growth inhibition test, EU C.3./OECD 201).

Note for consideration by the Registrant:

The Registrant 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 to and conforming with the appropriate rules in the respective Annex, and an adequate and reliable documentation.

Failure to comply with the requests in this decision, or to fulfil otherwise the information requirements with a valid and documented adaptation, will result in a notification to the Enforcement Authorities of the Member States.

B. Information related to chemical safety assessment and chemical safety report

Pursuant to Articles 41(1)(c), 41(3), 10(b), 14 and Annex I of the REACH Regulation the Registrant shall submit in the chemical safety report:

1. Revised exposure assessment and risk characterization for environment (Annex I, sections 5 and 6 of the REACH Regulation), as specified under section III.B.1. below;

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 **7 April 2017**. The timeline has been set to allow for sequential testing as appropriate.

III. Statement of reasons

Pursuant to Article 41(3) of the REACH Regulation, ECHA may require the Registrant to submit any information needed to bring the registration into compliance with the relevant information requirements.

A. Information in the technical dossier derived from the application of Annexes VII to XI

Pursuant to Articles 10(a)(vi) and/or (vii), 12(1)(e) of the REACH Regulation, a technical dossier for a substance manufactured or imported by the Registrant in quantities of 1000 tonnes or more per year shall contain as a minimum the information specified in Annexes VII to X of the REACH Regulation.

1. In vitro gene mutation study in mammalian cells (Annex VIII, 8.4.3.)

An "*In vitro* gene mutation study in mammalian cells" is an information requirement as laid down in Annex VIII, Section 8.4.3. of the REACH Regulation, "if a negative result in Annex VII, Section 8.4.1. and Annex VIII, Section 8.4.2." is obtained. ECHA notes that the registration dossier contains negative results for both these information requirements. Therefore, adequate information on this endpoint needs to be present in the technical dossier for the registered substance to meet this information requirement.

The technical dossier does not contain an adaptation in accordance with column 2 of Annex VIII, Section 8.4.3. or with the general rules of Annex XI for this standard information requirement.

As explained above, the information available on this endpoint for the registered substance in the technical dossier does not meet the information requirement. Consequently there is an information gap and it is necessary to provide information for this endpoint.

Therefore, pursuant to Article 41(1) and (3) of the REACH Regulation, the Registrant is requested to submit the following information derived with the registered substance subject to the present decision: *In vitro* mammalian cell gene mutation test (test method: EU B.17./OECD 476).

2. Sub-chronic toxicity study (90-day), oral route (Annex IX, 8.6.2.)

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. Adequate information on this endpoint needs to be present in the technical dossier for the registered substance to meet this information requirement.

The Registrant has sought to adapt this information requirement by applying a read-across adaptation following Annex XI, Section 1.5 of the REACH Regulation. Thus, the Registrant has provided four endpoint study records with three dicarboxylic acids (adipic acid, glutaric acid and succinic acid). In addition, the Registrant provided a document originally submitted

to US-EPA entitled "*Robust summary for dicarboxylic acid category*" which defines a specific category of alkane dicarboxylic acids with a "*total carbon chain length between four and six carbons. Dicarboxylic acids included in this group are succinic acid (C4), glutaric acid (C5) and adipic acid (C6)*" and highlights a testing plan along with the robust summaries for the above-mentioned chemical category.

ECHA notes that the Registrant has not provided a read-across justification anywhere in the registration dossier, explaining how the properties of oxalic acid can be predicted from the data provided for the other dicarboxylic acids, and hence there is a failure to provide adequate and reliable documentation, as required in Annex XI, 1.5. Additionally, the Registrant has defined the structural similarity as having a "*total carbon chain length between four and six carbons*", and hence, for oxalic acid, which has two carbons, there is a failure to demonstrate structural similarity so as to be considered as a group of substances, as required by Annex XI, 1.5. Furthermore, ECHA considers that it cannot verify that the properties for oxalic acid can be predicted from the data for the other dicarboxylic acids by interpolation, as required by Annex XI, 1.5. The proposed adaptation fails to satisfy the requirements of Annex XI, 1.5, and is consequently rejected.

In addition, the Registrant has provided an endpoint study record with the results from a publication in which only the effects in body weight and food consumption were studied in animals fed diets containing oxalic acid for a year.

ECHA notes that according to Annex XI, Section 1.1.2. of the REACH Regulation, this study does not provide adequate and reliable coverage of the key parameters foreseen to be investigated in the corresponding test methods referred to in Article 13(3), as required by Annex IX, Section 8.6.2., because only the effects on body weight and food consumption have been studied.

ECHA also notes that, in his previous registration dossier (submission no. [redacted]), the Registrant provided other information that is no longer present in the current registration dossier (submission no. [redacted]) in order to address the above information requirement. In its initial draft decision of 10 December 2013 ECHA pointed out why this information was insufficient. The registrant clearly took ECHA's considerations in the initial draft decision into account in its update by replacing this information with the information analysed in the preceding paragraphs.

As explained above, the information available on this endpoint for the registered substance in the technical dossier does not meet the information requirement. Consequently there is an information gap and it is necessary to provide information for this endpoint.

In light of the physicochemical properties of the substance and the information provided on the uses and human exposure, ECHA considers that testing by the oral route is most appropriate.

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

Therefore, pursuant to Article 41(1) and (3) of the REACH Regulation, the Registrant is requested to submit the following information derived with the registered substance subject to the present decision: Repeated dose 90-day oral toxicity study (test method: EU B.26./OECD 408) in rats.

3. Pre-natal developmental toxicity study (Annex IX, 8.7.2.)

Pre-natal developmental toxicity studies on two species are part of the standard information

requirements for a substance registered for 1000 tonnes or more per year (Annex IX, Section 8.7.2., column 1, Annex X, Section 8.7.2., column 1, and sentence 2 of introductory paragraph 2 of Annex X of the REACH Regulation).

The Registrant has sought to adapt this information requirement by applying a read-across adaptation following Annex XI, Section 1.5 of the REACH Regulation. Thus, the Registrant has provided an endpoint study records with a dicarboxylic acid different to the registered substance (adipic acid). In addition, the Registrant provided a document originally submitted to US-EPA entitled "*Robust summary for dicarboxylic acid category*" which defines a specific category of alkane dicarboxylic acids with a "*total carbon chain length between four and six carbons. Dicarboxylic acids included in this group are succinic acid (C4), glutaric acid (C5) and adipic acid (C6)*" and highlights a testing plan along with the robust summaries for the above-mentioned chemical category.

ECHA notes that the proposed adaptation fails to satisfy the requirements of Annex XI, Section 1.5. of the REACH Regulation as it was explained under section III.2 above, and is consequently rejected.

In addition, the Registrant has provided an European Medicines Agency summary report in which a developmental toxicity study in sheep fed diets containing oxalic acid is mentioned. However, ECHA notes that the Registrant has not provided a robust study summary for that study, and hence has failed to comply with the requirement of Article 10(a)(vii). In addition, the authors of the European Medicines Agency report state that the study has not followed "*a valid protocol covering embryotoxic and teratogenic effects*" and they conclude that "*no final conclusion on teratogenic or embryotoxic effects can be drawn*". Thus, this summary of a European Medicines Agency report does not provide adequate information to cover the information requirements for Annex IX, Section 8.7.2.

ECHA also notes that, in his previous registration dossier (submission no. [redacted]), the Registrant provided two study records on pre-natal developmental toxicity in rats that are no longer present in the current registration dossier (submission no. [redacted]). In relation to those study records the Registrant itself concluded that "Although the results of both studies indicate possible developmental toxicity of oxalic acid, the results are discussable and cannot be used for hazard assessment". In its initial draft decision of 10 December 2013 ECHA pointed out why this information was insufficient to meet the information requirement for developmental toxicity It should be noted that in that initial draft decision ECHA referred to a data gap in relation to Annex X section 8.7.2., pre-natal developmental toxicity study on a second species, but obviously ECHA's considerations in the initial draft decision why the data provided is insufficient to meet the information requirement on developmental toxicity applies to both Annex IX, 8.7.2., developmental toxicity on a first species and Annex X, 8.7.2. concerning a second species. The registrant clearly took ECHA's considerations in the initial draft decision into account in its update by replacing this information with new reasoning why it considers the developmental toxicity end-point to be fulfilled.

As explained above, the information available on this endpoint for the registered substance in the technical dossier does not meet the information requirement. Consequently there is an information gap and it is necessary to provide information for this endpoint.

Therefore, pursuant to Article 41(1) and (3) of the REACH Regulation, the Registrant is requested to submit the following information derived with the registered substance subject to the present decision: Pre-natal developmental toxicity study (test method: EU B.31./OECD 414) in rats or rabbits by the oral route.

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).

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, Section 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 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. If the Registrant comes to the conclusion that no study on a second species is required, he should update his technical dossier by clearly stating the reasons for adapting the standard information requirement of Annex X, Section 8.7.2.

4. Growth inhibition study aquatic plants (Annex VII, 9.1.2.)

"Growth inhibition study aquatic plants" is a standard information requirement as laid down in Annex VIII, Section 9.1.2. of the REACH Regulation. Adequate information on this endpoint needs to be present in the technical dossier for the registered substance to meet this information requirement.

The Registrant has provided two study records:
- A key study based on growth rate inhibition on *Microcystis aeruginosa* providing a toxicity threshold after 8 days of 80 mg/L.
- A supporting study based on growth rate inhibition on *Scenedesmus quadricauda* providing a toxicity threshold after 7 days of 790 mg/L.

In addition, the Registrant states that "*No guideline study used but comparable to national guidelines/standards*" and that "*No data on actual exposure concentrations given as dilutions at different volume ratios with the factor 2 were prepared*".

The Registrant also states that the principle of the tests is "*the toxic effect of a substance is tested in the cell multiplication inhibition test during 8 d. Under this method, the onset of the inhibition of cell multiplication under the influence of hazardous water pollutants is determined*".

ECHA notes that in order to be accepted, these tests have to comply with the quality criteria specified in the EU C.3 / OECD 201 guidelines. These quality criteria are as follows:
- The biomass in the control cultures should have increased exponentially by a factor of at least 16 within the 72-hour test period. If this criterion is not met because the species grow slower, then the period should be extended to obtain at least a 16-fold growth in control cultures, while the growth has to be exponential throughout the test period. The test period may be shortened to at least 48 h to maintain unlimited exponential growth during the test, as long as the minimum multiplication factor of 16 is reached.
- The mean coefficient of variation for section-by-section specific growth rates (days 0-1, 1-2 and 2-3, for 72-hour tests) in the control cultures must not exceed 35 %. This criterion applies to the mean value of coefficients of variation calculated for replicate control cultures.

- The coefficient of variation of average specific growth rates during the whole test period in replicate control cultures must not exceed 7 % in tests with *Pseudokirchneriella subcapitata* and *Desmodesmus subspicatus*. For other less frequently tested species, the value should not exceed 10 %.

ECHA notes, that the Registrant has not demonstrated that these quality criteria are met in the studies provided. In particular, the duration of the two test submitted in the dossier are generally seen as far too long for algae tests. With such long durations, it is doubtful that the algae were in the exponential growth phase throughout the tests period and the robust study summaries do not provide information that would rule out that concern. Therefore the validity of the growth inhibition study plant tests performed is questionable.

As explained above, the information available on this endpoint for the registered substance in the technical dossier does not meet the information requirement. Consequently there is an information gap and it is necessary to provide information for this endpoint.

Therefore, pursuant to Article 41(1) and (3) of the REACH Regulation, the Registrant is requested to submit the following information derived with the registered substance subject to the present decision: Growth inhibition study aquatic plants (test method OECD 201).

B. Information related to the chemical safety assessment and chemical safety report

Pursuant to Articles 10(b) and 14(1) of the REACH Regulation the registration shall contain a chemical safety report which shall document the chemical safety assessment conducted in accordance with Article 14(2) to (7) and with Annex I of the REACH Regulation.

According to Article 14(3) and Annex I section 0.6.1., the chemical safety assessment shall include human health, physicochemical and environmental hazard assessments.

Further, according to Article 14(4) and Annex I section 0.6.2, if the substance fulfils the criteria for any of the hazard classes or categories referred to in Article 14(4) and Annex I section 0.6.3. of the REACH Regulation, the chemical safety assessment shall also include exposure assessment including the generation of exposure scenarios (or the identification of relevant use and exposure categories if appropriate) and exposure estimation, as well as risk characterisation.

1. Revised exposure assessment and risk characterization for environment (Annex I, sections 5 and 6 of the REACH Regulation)

Annex I section 5 of the REACH Regulation requires the Registrant to generate exposure scenarios and exposure estimations for the registered substance. The exposure assessment shall consider all stages of the life-cycle of the substance resulting from the manufacture and identified uses and shall cover any exposures that may relate to the identified hazards.

Further, Annex I, Section 5.2. of the REACH Regulation requires the Registrant to provide exposure estimation for each scenario.

Annex I section 6 of the REACH Regulation requires the Registrant to characterise the risk for each exposure scenario and shall consider the human population and the environmental spheres for which exposure to the substance is known or reasonably foreseeable. In addition, the overall environmental risk caused by the substance shall be reviewed by integrating the results for the overall releases, emissions and losses from all sources to all environmental compartments.

ECHA notes that the following deficiencies have been observed in the exposure assessment and risk characterisation of the registered substance for environment:

- The Registrant has not provided regional environmental concentrations (PECs) for any of the environmental compartments in any of the exposure scenarios. The Registrant has provided a so called "*total daily intake via environment, regional*" but this is only relevant to the assessment of exposure of humans *via* environment. Therefore, ECHA notes that the Registrant has not fulfilled the REACH requirements set in Annex I, section 5.
- In the provided exposure scenarios, the Registrant has not supplied all necessary operational conditions and, in particular in the ES1 and ES2, information on used tonnage are missing.
- Some risk characterisation ratios (RCRs) provided by the Registrant for the exposures scenarios 1 and 2 are higher than 1 (in some cases up to [redacted]). According to Annex I, Section 6.4. "*for any exposure scenario, the risk to humans and environment can be considered to be adequately controlled [...] if the exposure levels estimated [...] do not exceed the appropriate DNEL or the PNEC*". Thus, ECHA notes that the RCRs higher than 1 provided by the Registrant raise a concern on the adequacy of control of the risks arising from the registered substance to the environment. In this situation ECHA notes that ECHA Guidance on information requirements and chemical safety assessment, Part E, Section E.4.6. already suggests several options:
    - To improve hazard information (e.g. carrying out long-term study),
    - To improve exposure information (e.g. making measurements of the actual exposure levels) and/or consider to introduce sufficient RMMs (the operational conditions and risk management measures which allow safe use of the substance shall then be reported in the CSR and communicated down the supply chain), and/or
    - If a risk is still present after all possible refinements of the estimates, and if it is not possible to introduce further controls (e.g. because of excessive costs), the Registrant may choose not to support the affected uses. In this case, uses advised against shall be communicated down the supply chain and reported in the technical dossier (IUCLID section 3.6) and in section 2.3 of the CSR.

Therefore, pursuant to Article 41(1) and (3) of the REACH Regulation of the REACH Regulation, the Registrant is requested to revise the exposure assessment and risk characterisation for the environment addressing the issues identified above and to submit in the chemical safety report the following information:

- Regional exposure estimations for all environmental compartments in all exposure scenarios.
- Operational Conditions in all exposure scenarios, making sure to specify the used tonnage.
- A regional risk characterisation for all relevant environmental compartments in all exposure scenarios.
- A revised risk characterisation for exposure scenarios 1 and 2 demonstrating that the risks, arising from the substance, to the environment are adequately controlled.

The Registrant shall use the format specified in Annex I, section 7 of the REACH Regulation.

IV. Adequate identification of the composition of the tested material

ECHA stresses that the information submitted by other joint registrants for identifying the 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 information required by the present decision, 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 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 substance tested in the new studies 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 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 grade(s) registered to enable the relevance of the studies to be assessed.

V. 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/web/guest/regulations/appeals. The notice of appeal will be deemed to be filed only when the appeal fee has been paid.

[redacted]
Claudio Carlon
Head of Unit, Evaluation