ECHA
EUROPEAN CHEMICALS AGENCY

Decision number: CCH-D-2114294577-32-01/F Helsinki, 27 April 2015

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

For manganese carbonate, CAS No 598-62-9 (EC No 209-942-9), 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 manganese carbonate, CAS No 598-62-9 (EC No 209-942-9), submitted by [redacted] (Registrant).

This decision is based on the registration as submitted with submission number, [redacted] for the tonnage band of 1000 or more tonnes per year. This decision does not take into account any updates submitted after 12 June 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 12 July 2013.

On 8 November 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].

On 5 December 2013 ECHA received comments from the Registrant on the draft decision.

On 7 February 2014 the Registrant updated his registration dossier with the submission number [redacted].

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

On 12 June 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 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.

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

On 18 July 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.

On 28 July 2014 ECHA referred the draft decision to the Member State Committee.

By 18 August 2014, in accordance to Article 51(5), the Registrant provided comments on the proposals for amendment. In addition, the Registrant provided comments on the draft decision. The Member State Committee took the comments on the proposals for amendment of the Registrant into account. 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).

After discussion in the Member State Committee meeting on 16-18 September 2014, a unanimous agreement of the Member State Committee on the draft decision as modified at the meeting was reached on 17 September 2014.

ECHA took the decision pursuant to Article 51(6) 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:

- Description of the analytical methods or the appropriate bibliographical references for the identification of the substance (Annex VI, 2.3.7.), as further specified under section III.A.1. below.

B. 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 IX and 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:

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

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 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.

C. Information in the technical dossier related to the classification and labelling of the substance

Pursuant to Articles 41(1), 41(3), 10(a)(iv) and Annex VI, Section 4 of the REACH Regulation in conjunction with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP Regulation) the Registrant shall submit the following information for the registered substance subject to the present decision:

- The hazard classification of the registered substance for chronic aquatic toxicity based on Title I and II of Regulation (EC) No 1272/2008 (CLP Regulation) and resulting hazard statement in line with the criteria set out in Part 4 of Annex I of the CLP Regulation, as amended by Commission Regulation (EU) No 286/2011 of 10 March 2011 (Tables 4.1.0. (a) and/or (b) and 4.1.4) (Annex VI, Section 4.1. and 4.2. of the REACH Regulation), as specified in section III below. In the alternative, the Registrant is required to provide the scientifically justified reasons why no such classification is given.

D. Deadline for submitting the required information

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 **3 November 2016**.

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 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.

- Description of the analytical methods or the appropriate bibliographical references for the identification of the substance (Annex VI, section 2.3.7.).

"Description of the analytical methods or the appropriate bibliographical references for the identification of the substance" is a standard information requirement as laid down in Annex VI, Section 2.3.7. 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.

ECHA notes that the Registrant has not provided sufficient information on the analytical methods for the identification and quantification of the substance. More specifically, ECHA notes the following incompliance:

- Identification and quantification of the impurities

  The registration contains details of water content as reported under impurities in

section 1.2 "Composition" of the IUCLID dossier. However, section 1.4 "Analytical information" of the IUCLID dossier does not contain any description or corresponding results for the analytical method used to identify and quantify water.

On 5 December 2013, ECHA received comments from the Registrant on the draft decision indicating that water is not an intrinsic part of the crystal structure of manganese carbonate but simply physisorbed and that the chemical composition in IUCLID section 1.2 and 1.4 would be updated, accordingly. On 7 February 2014, the Registrant updated his registration dossier with the submission number [redacted]. However, ECHA notes that section 1.2 has not been updated as it still reports [redacted]% of water as an impurity (exactly the same as in the dossier the original decision was based on). Furthermore, section 1.4 of the updated IUCLID dossier does not contain descriptive information regarding the analytical method used to quantitate water.

Therefore, pursuant to Article 41(1) and (3) of the REACH Regulation, the Registrant is requested to submit a description of the analytical method or the suitable bibliographical references for the identification and quantification of the water contained in the substance subject to the present decision.

The Registrant is accordingly requested to provide the missing information on the description of the method and the corresponding results for the identification and quantification of the impurity water. The method description shall include details of the experimental protocol followed, the calculations used and the results obtained. The information shall be sufficient for the methods to be reproduced. As for the reporting of the above data in the registration dossier, the information should be attached in IUCLID section 1.4.

B. 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 IX and X of the REACH Regulation.

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

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

In the dossier submission [redacted] on which the draft decision was based, the Registrant has not provided any study record of a pre-natal developmental toxicity study in the dossier that would meet the information requirement of Annex IX, Section 8.7.2. Instead, the Registrant has sought to adapt this information requirement addressing exposure considerations for various routes of human exposure. The justification of the adaptation given by the Registrant is the very low bioavailability of the registered substance by inhalation route, and the improbable oral exposure and lack of toxicity by the oral route. The Registrant has based these adaptations on Annex XI, Section 1.1. For the dermal route of exposure, the justification in the adaptation is based on the no significant rate of absorption of the registered substance through the skin, no systemic effects and since it is not the most likely route of systemic exposure with reference to Section 8.6., column 2 . However, ECHA noted that the general rules for adaptation of Annex XI, 1.1. relate to the

use of existing data, not with adaptations based on low bioavailability or exposure considerations. ECHA also noted that the use of Colum 2 of Section 8.6. refers to specific rules for adaptation for the repeated dose toxicity study but not for that of the pre-natal developmental toxicity study. Furthermore, the proposed adaptation did not meet the specific rules for adaptation of Annex IX or X, 8.7., column 2 because the Registrant did not demonstrate that the substance is of low toxicity (no toxicity seen in any of the tests available), the Registrant did not prove from toxicokinetic data that no absorption occurs via relevant routes of exposure and the Registrant did not demonstrate that there is no or no significant human exposure. Therefore, the adaptation of the information requirement suggested by the Registrant could not be accepted.

Following the draft decision the Registrant commented on the requested oral route for the reproductive studies as opposed to inhalation route requested for the long-term repeated dose study. ECHA notes that the registered substance has low solubility but it is not insoluble (16% in simulated gastric juice) and there is systemic bioavailability after oral administration. In the case of this substance, inhalation uptake is also expected. Therefore, both oral and inhalation routes might be appropriate routes of administration. However, ECHA notes that reproductive toxicity studies are intended for hazard identification and classification, and as the Registrant indicated in the comments, oral administration is expected to lead to a much higher bioavailability than inhalation. For reproductive toxicity purposes, the most appropriate route is usually oral. Additionally, the granulometry of the substance makes clear that the majority of the particles (~85%) are too large for deposition in the deep lung, and hence would be cleared via the gastrointestinal tract. Taking into account all these factors, ECHA considers the oral route is more appropriate to test the registered substance for pre-natal developmental toxicity than via inhalation.

In the updated dossier the Registrant has provided a two-generation reproductive toxicity study (OECD 416), performed with an analogue substance, manganese chloride, to meet the information requirement for pre-natal developmental toxicity study. ECHA considers that the Registrant's proposal to use results from MnCl2 relates solely to the provided 2-generation reproductive toxicity study with MnCl2, and is not a proposal to perform a pre-natal developmental toxicity study with MnCl2.

ECHA notes that the two-generation reproductive toxicity study does not adequately and reliably cover the key parameters of the pre-natal developmental toxicity study, e.g., skeletal and visceral examination of foetuses. ECHA considers that the finding of a similar number of implant sites and pups born in all groups does not remedy this defect. Hence this study fails to meet the requirement that there be adequate and reliable coverage of the key parameters addressed in the corresponding test method. Moreover, it would thereby be inadequate for the purpose of classification and labelling and/or risk assessment.

The Registrant argues that as an essential nutrient involved in bones formation which is poorly absorbed and under efficient homeostatic control, it is very unlikely that manganese carbonate will cause teratogenic effects, fact supported by the absence of abnormality in the litter's bones in the two generations study. The Registrant has provided a literature review on manganese compounds which showed equivocal evidence for reproductive toxicity. ECHA notes that the literature review does not contain any pre-natal developmental toxicity study neither on manganese carbonate nor on any other manganese salt. The Registrant argues that some of the parameters measured in the two-generation study (implant sites, pup numbers) provide sufficient reassurance for the pre-natal developmental toxicity endpoint. The Registrant also argues that the STOT RE sufficiently protecting for neurotoxicity, which is considered a more sensitive endpoint, will, by default, also protect for developmental toxicity. ECHA notes that neither of these arguments, by themselves, are valid adaptations in conformity with the provisions in Column II of the REACH Annexes or with Annex XI. As a consequence, ECHA considers that, when taken together as a weight of evidence as

described in Annex XI, 1.2, these arguments do not provide a sufficient weight of evidence from several independent sources leading to the assumption/ conclusion that the substance does not have a particular dangerous property, in this case for prenatal developmental toxicity.

In the context of WoE, the Registrant also brings forward the limited workplace exposure due to good industrial practices. However, this cannot be assessed in the absence of an exposure assessment covering all the relevant exposures throughout the life cycle of the substance which would demonstrate the absence of or no significant exposure in all scenarios of the manufacture and all identified uses as referred to in Annex VI section 3.5. The CSA does not contain any exposure scenarios and the PROCs in the dossier (4, 5, 8a, 8b, 9,11, 13) indicate wide exposure. Therefore, neither the rules to adapt the information requirement based on exposure considerations in accordance with Annex XI, Section 3. are met.

ECHA concludes that none of the adaptations proposed by the Registrant are appropriate. Consequently, there is still an information gap for the pre-natal developmental toxicity endpoint.

According to the test method EU B.31/OECD 414, the rat is the preferred rodent species, the rabbit the preferred non-rodent species and the test substance is usually administered orally. ECHA considers these default parameters appropriate and testing should be performed by the oral route with the rat or the rabbit as a first species to be used.

A Competent Authority submitted a proposal for amendment indicating an alternative substance to test, suggesting that the Registrant should conduct the study on a soluble inorganic manganese salt, such as the dichloride. Although finding the proposal "*plausible*" the Registrant argued that "*Considering the differences between the registered substance and a soluble inorganic manganese salt: valency, physicochemical properties, bioavailability and toxicokinetic behaviour, using a soluble inorganic salt could lead to excessive evaluation of the toxicity profile of the registered substance and hence an incorrect, misclassification.*" In response to this proposal the Registrant is considering using "*any analogue substance which may be suitable to read across, information available on intelligent testing strategies and animal welfare*" while taking into consideration the properties of the registered substance. However,ECHA notes that the Registrant did neither clearly identify any analogue substance, nor did the Registrant justify and document an adaptation argument.

Another Competent Authority submitted a proposal for amendment indicating that there was "*a supporting non-guideline developmental toxicity study in mice (rated Klimisch score 2 by the Registrant) is presented in the IUCLID file (Sanchez 1993). Such a study would normally not be acceptable to fulfil the standard information requirements of REACH since the subcutaneous administration route is used. However, in this case the test substance has shown systemic bioavailability (maternal death at highest dose and developmental effects up to 4 mg/kg bw/d). Consideration needs to be made by the registrant to evaluate whether the study may be acceptable for use for this endpoint (Based on evidence of developmental effects, this study may trigger a classification; currently this substance is not classified)*". In his comments to this proposal for amendment, the Registrant had the opinion that the Sanchez paper was too weak with regards to its application for regulatory compliance and its use to comply with the pre-natal developmental endpoint. As outlined already above in Section II B. (Note for consideration by the Registrant) ECHA considers based on the proposal for amendment, that the Registrant should assess if the information requirement for a pre-natal developmental toxicity study may be met by way of adaptation (Annex IX, Section 8.7., Column 2; the study needs not to be conducted if the substance is known to cause developmental toxicity, meeting the criteria for classification Category 1A or 1B, and the available data are adequate to support a robust risk assessment).

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

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, 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 fulfil 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, 8.7.2.

C. Information in the technical dossier related to the classification and labelling of the substance

- Hazard classification and resulting hazard label for chronic aquatic toxicity (Annex VI, 4.1. and 4.2.)

Pursuant to Article 10(a)(iv) of the REACH Regulation the technical dossier shall contain information on classification and labelling of the substance as specified in Annex VI, Section 4 of the REACH Regulation in conjunction with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP Regulation). Annex VI, section 4.1. clarifies that the hazard classification of the substance shall result from the application of Title I and II of the CLP Regulation. In addition, for each entry, the scientifically justified reasons why no classification is given for a hazard class or differentiation of a hazard class should be provided. According to Article 5(1) of Title I and recitals 20 and 21 of the CLP Regulation, a substance shall be classified on the basis of available information.

Furthermore, the technical dossier must include the resulting hazard label for the substance in line with Title III of the CLP Regulation (Annex VI, section 4.2 of the REACH Regulation).

ECHA notes that in the original submission, the dossier did not contain any hazard classification for the registered substance for chronic aquatic toxicity, nor a justification for the absence of such classification. Therefore, the dossier contained an information gap which the Registrant is required to fulfill. In fulfilling the information gap the Registrant was requested to take into consideration the ERVs (ecotoxicity reference values) and transformation /dissolution results included in the technical dossier.

On 5 December 2013 ECHA received comments from the Registrant on the draft decision indicating that the ecotoxicity profile of the substance was to be re-evaluated based on new

and existing studies and that the results would be submitted in an updated dossier. On 7 February 2014 the Registrant updated his registration dossier with the submission number [redacted]. The Registrant has provided a new toxicity study for algae using the Registered substance, whereby the NOEC was reported as being 0.69 mg/L of test substance. This value is in line with the NOEC previously reported for MnO (0.41 mg/L of test substance). The Registrant has also provided a justification why, in his view, there is no need for classification. The Registrant has referred to two transformation/dissolution (T/D) studies, a 7 day study with manganese carbonate and a 28 day study with MnO. Both studies were included in the original version of the technical dossier, although the results were initially not analysed in the context of the need for classification. The Registrant has also identified acute and chronic ERVs from fish toxicity studies on MnSO4 (3.2 and 0.55 mg/L respectively). The Registrant indicates that by comparing ERVs with T/D results, ERVs are always higher than dissolved Mn ion concentration. ECHA notes, however, that the dissolved Mn concentration at loading rates of 100 mg/L in the, 7 d T/D test is 9,2082 mg/L) which is higher than the reported acute metal ERV (3.2 mg/L on fish). Therefore, based on the C&L Guidance document, acute 3 toxicity classification should be applied.

Based on the information contained in the updated technical dossier (submission number [redacted]) , ECHA notes that the NOEC values provided by the Registrant for a Klimisch 1 study on manganese carbonate and for a Klimisch 2 study on MnO were 0.69 and 0.41 mg L, respectively. Since these values refer to the test substance and not to metal ion concentration, it is most likely that using these results, the Registrant may observe chronic ERV > T/D results. The Registrant has opted not to use the available algae chronic results in assessing the need for classification. No clear and valid justification for omitting these studies from the ERV derivation is available in the dossier. More specifically, it is not fully clear which data set has been considered for the ERV derivation. Therefore, ECHA is of the opinion that the Registrant did not use the worst-case aquatic toxicity results in this instance.

According to the CLP Guidance, Annex IV, the Registrant should evaluate the need for classification based on ERVs and transformation/dissolution results. In the present case, the ERVs for aquatic species and the results of the transformation/dissolution studies reported in the technical dossier indicate that the Registrant should consider classification for chronic aquatic toxicity.

Therefore, pursuant to Article 41(1) and (3) of the REACH Regulation, the Registrant is requested to submit information on the classification and labelling of the registered substance subject to the present decision. In the alternative, the Registrant is required to provide the scientifically justified reasons why no such classification is given. The Registrant is reminded that also for a differentiation of a hazard class, scientifically justified reasons need to be provided.

ECHA notes that in reviewing whether the Registrant has complied with Sections 4.1. and 4.2. of Annex VI of the REACH Regulation with regard to classification and labelling for aquatic toxicity, it can only base its assessment on data on aquatic toxicity that is available in the registration dossier. Any other data on aquatic toxicity of the substance that the Registrant does not submit in his registration dossier but that he may need to consider in his classification, cannot be taken into consideration by ECHA. If there is any other data available on aquatic toxicity of the substance, the Registrant is required to include the data in the registration dossier in line with the second introductory paragraph of Annexes VI to X and step 1 of Annex VI to the REACH Regulation.

D. Deadline for submitting the required information

In the draft decision communicated to the Registrant the time indicated to provide the requested information was 30 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. This request has been removed from the present decisoin, upon the dossier update. Therefore ECHA considers that a reasonable time period for providing the required information in the form of an updated registration, is 18 months from the date of the adoption of this decision. The decision was therefore modified accordingly.

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://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.

[redacted]
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