Helsinki, 19 September 2018

Addressee: [redacted]

Decision number: CCH-D-2114442756-42-01/F
Substance name: Reaction product of Maleic anhydride, 2-Ethylhexylamine and Triethanolamine
EC number: 939-488-3
CAS number: NS
Registration number: [redacted]
Submission number: [redacted]
Submission date: 26/09/2016
Registered tonnage band: 100-1000

DECISION ON A COMPLIANCE CHECK

Based on Article 41(1)(c) and (3) of Regulation (EC) No 1907/2006 (the REACH Regulation), ECHA requests you to submit information on:

1. **Identification of DNEL(s) and risk characterisation (Annex I, Section 1.4. and 6.): revise long-term DNEL(s) for workers and for the general population for all routes and for systemic effects using the assessment factors recommended by ECHA and revise the risk characterisation accordingly *or* provide a detailed justification for not using the recommendations of ECHA Guidance R.8 for DNEL derivation;**

2. **Exposure assessment and risk characterisation (Annex I, Sections 5. and 6.) for human health: revise exposure estimates for exposure scenarios (ES1, CS1-9; ES2, CS1-9; ES5, CS3-5) using a model within its domain of applicability and revise the risk characterisation accordingly *or* provide adequate measured representative exposure data**

3. **Exposure assessment and risk characterisation (Annex I, Sections 5. and 6.) for human health: provide a qualitative exposure assessment demonstrating the likelihood that effects for skin sensitisation are avoided for consumer uses and to detail product-integrated risk management measures and revise the risk characterisation.**

You have to submit the requested information in an updated registration dossier by **3 May 2019**. You also have to update the chemical safety report, where relevant.

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

The scope of this compliance check decision is limited to the standard information requirements of Annex I to the REACH Regulation.

Appeal

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

Authorised[1] by Kevin Pollard, Head of Unit, Evaluation E1

[1] As this is an electronic document, it is not physically signed. This communication has been approved according to ECHA's internal decision-approval process.

Appendix 1: Reasons

1. Identification of DNELs and risk characterisation (Annex I, Sections 1.4. and 6.)

In accordance with Articles 10(b) and 14(1) of the REACH Regulation, the registration must contain a chemical safety report (CSR) which documents the chemical safety assessment (CSA) conducted in accordance with Article 14(2) to (7) and with Annex I to the REACH Regulation.

Annex I, Section 1.4.1 of the REACH Regulation requires that the following factors shall, among others, be taken into account when deriving DNELs:

a) the uncertainty arising, among other factors, from the variability in the experimental information and from intra- and inter-species variation;
b) the nature and severity of the effect;
c) the sensitivity of the human (sub-)population to which the quantitative and/or qualitative information on exposure applies;
d) and that the DNELs reflect the likely route(s), duration and frequency of exposure.

The ECHA Guidance on information requirements and chemical safety assessment Chapter R.8 provides further details and specifically provides default factors which should be applied to derive DNELs in the absence of substance specific information to fulfill the REACH obligations.

ECHA notes that the assessment factors (AF) applied were not derived in accordance to the default assessment factors recommended in the ECHA Guidance R.8 for DNEL derivation. In your CSR, you have provided a justification for the use of different AFs in the derivation of DNELs.

However, ECHA observes that the justifications provided are not substance specific. For example, the AF of the remaining differences between interspecies you use a value of 1 when default should be 2.5. Your justification is that concerning inhalation, rodents like rats, are in general more sensitive compared to human as the rat's ventilation frequency is higher and also that the ERASM project results suggest that a factor of 2.5 for 'remaining' interspecies differences may be questionable as a standard procedure (Escher and Mangelsdorf, 2009; Batke et al, 2011; Bitsch et al, 2006). This justification is not substance specific and it does not show specific susceptibility differences between species to the registered substance. In addition, ECHA notes that the ventilation rate is related to differences in basal metabolic rate and thus to the allometric scaling and not to the remaining differences which are dealing with toxicokinetic differences not related to metabolic rate and toxicodynamics.

Another example is the AF for intraspecies. You use a value of 3 instead of the default 5 for workers and 5 instead of the default 10 for the general population with the argumentation that no systemic effects were seen in the repeated dose test with rats and thus, a factor of 3 and 5 were considered sufficient. ECHA notes that this justification is again not substance specific. The fact that no systemic effects were seen in the study used as a starting point does not justify to reduce the AF for intraspecies. As consequence, you have not explained why the used AFs are correct or more correct than the default values.

For the AF of exposure duration, you use a value of 3.4 instead of the default value 6 referring to the article from Batke et al. (2011) and state that the ERASM project results

suggests that lower values for the AF were justified. Consequently, you used the AF of 3.4 referring to the ERASM project. ECHA notes that this justification is again not substance specific. You also state that in the present case the exposure in the starting point was 57 days instead of the 28 days corresponding to a sub-acute study. ECHA notes that this different exposure duration in the test study does not justify the use of the specific value of 3.4.

You also used an additional AF "*to cover potential local effects (although no signs of respiratory irritation were observed in the inhalation hazard test)*". ECHA notes that for substances that cause sensitisation and in the absence of data for this effect providing quantitative dose-response information, local effects like this would be better dealt with through a qualitative risk characterisation. You can find more information in ECHA's Guidance on Information Requirements and Chemical Safety Assessment, Part E: Risk Characterisation, Section E.3.4 (version 3.0, May 2016).

As explained above, the information provided on DNEL for the registered substance in the chemical safety report does not meet the general provisions for preparing a chemical safety report as described in Annex I, 1.4.1.

Consequently, you are given two options: you shall revise the DNELs for workers and the general population by applying the assessment factors recommended by ECHA that are appropriate in this case as specified above. Subsequently, you shall re-assess related risks.

In the alternative, you shall - in accordance with Annex I, Section 1.4.1. - provide a full justification for the DNELs derived for workers and general population provided in the chemical safety report by specifying how the following has been taken into account:

a) the uncertainty arising, among other factors, from the variability in the experimental information and from intra- and inter-species variation;
b) the nature and severity of the effect;
c) the sensitivity of the human (sub-)population to which the quantitative and/or qualitative information on exposure applies;
d) and that the DNELs reflect the likely route(s), duration and frequency of exposure.

Therefore, pursuant to Article 41(1) and (3) of the REACH Regulation, you are requested to revise the derived long-term DNELs for workers and the general population via all routes of exposure for systemic effects using the default ECHA assessment factors and other recommendations of ECHA Guidance R.8 for DNEL derivation and revise the risk characterisation accordingly *or* provide a detailed justification for not using the recommendations of ECHA Guidance R.8 for DNEL derivation.

2. Exposure assessment and risk characterisation (Annex I, Sections 5. and 6.) for human health; worker exposure assessment

In accordance with Articles 10(b) and 14(1) of the REACH Regulation, the registration must contain a chemical safety report (CSR) which documents the chemical safety assessment (CSA) conducted in accordance with Article 14(2) to (7) and with Annex I of the REACH Regulation.

Annex I, Section 5.2.4 requires you as the registrant to perform an estimation of the exposure levels for all human populations (workers, consumer and humans liable to exposure via the environment) for which exposure to the substance is known or reasonably foreseeable. Each relevant route of exposure (inhalation, oral, dermal and combined through all relevant routes and sources of exposure) shall be addressed.

Further, Annex I, Section 5.2.5. states that *appropriate* models can be used for the estimation of exposure levels. However, special consideration shall be given to representative exposure data where available, when conducting the exposure assessment.

ECHA notes that according to the information provided in the technical registration dossier and in the CSR, the worker exposure estimates in the CSR have been calculated using EasyTRA 4.1.0. Furthermore, it is stated that EasyTRA works in compliance with ECETOC TRA version 3 (as of July 2012) for the calculation of worker exposure levels. It is further stated by you that "*following modifications are possible for the worker exposure assessment, that are already suggested in the ECETOC TRA guidance document TR114: factor for peak exposure, use of the exact concentration instead of ECETOCs category approach, and use of the exact process duration instead of ECETOCs category approach.*"

ECHA points out that it is explained in the ECETOC TRA Technical Report No. 114 (page 20) that the ECETOC version 3 apply the same TRA modifiers as currently used in TRA version 2 for inhalation exposures as shown in Table 5 in the ECETOC TRA Technical Report. The inherent conservatism of such a banded modifier is consistent with a screening approach. ECETOC TRA v. 3 does not support the use of linear correction factors to the initial TRA estimates. The TRA is a tier 1 model based on a banding approach and supposed to be inherently conservative. The banded modifiers are supposed to be consistent with the screening approach of a tier 1 model.

According to ECETOC TR 114, if the concentration of the substance in a mixture is >25 %, the mixture should be treated like the pure substance, for concentrations 5-25 % an exposure reduction of 40 % should be applied, for concentrations 1-5 % an exposure reduction of 80 % and for concentrations <1 % an exposure reduction of 90 % (see TR114, p.20).

In your CSR, you assumed a linear relationship between concentration and estimated exposure for inhalation and dermal route in several contributing worker scenarios (CWS) for several exposure scenarios (ES) when the exposure estimates were calculated (namely ES1, CS1-9; ES2, CS1-9; ES5, CS3-5). If the *appropriate* exposure tool had been used within its applicability domain, the estimated exposure values would be higher and the RCRs close to 1 for some contributing scenarios (e.g. the CWS 9 (PROC 13) in ES 1, and CWS 3 (PROC 2) in ES 2, and the CWS 9 (PROC 13) in ES 5). Therefore, the risks arising from the use of the substance in a mixture might not be adequately controlled.

In addition, ECHA notes that the physical/chemical properties in Table 2 on page 110, which are apparently used in exposure estimations, are not according the physicochemical properties identified in chapter 1, pages 14-20. You have not given any clarification for the different values.

ECHA notes that you are using exposure estimates in your exposure scenarios which have been calculated by using an *appropriate* model in an inappropriate manner. By applying a linear approach and by using the model inadequately, you have submitted risk characterisation ratios (RCRs) for the substance subject to the present decision that are unreliable and cannot be compared against the derived no-effect level (DNEL) as foreseen in the risk characterisation (Annex I, 6.2.).

Therefore, pursuant to Article 41(1) and (3) of the REACH Regulation you are requested to revise exposure estimates for exposure scenarios (ES1, CS1-9; ES2, CS1-9; ES5, CS3-5) using an *appropriate* model within its domain of applicability and in accordance with the

guidance for the model used or provide adequate measured representative exposure data and revise the risk characterisation accordingly.

Notes for your consideration

The revised DNELs requested with this decision shall be taken into account when assessing the related risks.

3. Exposure assessment and risk characterisation (Annex I, Sections 5. and 6.) for human health; consumer exposure assessment

In accordance with Articles 10(b) and 14(1) of the REACH Regulation, the registration must contain a chemical safety report (CSR) which documents the chemical safety assessment (CSA) conducted in accordance with Article 14(2) to (7) and with Annex I to the REACH Regulation.

Annex I, Section 5. of the REACH Regulation indicates that the objective of the exposure assessment shall be to make a quantitative or qualitative estimate of the dose/concentration of the substance at which humans [...] are or may be exposed.

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. In addition Annex I, Section 5.1 states that the final exposure scenario includes, where relevant, a description of operational conditions e.g. the activities of consumers and duration and frequency of their exposure to the substance, and risk management measures to reduce or avoid direct and indirect exposure to humans (including workers and consumers).

Further, Annex I, Section 6.5. of the REACH Regulation states that "*for those human effects and those environmental spheres for which it was not possible to determine a DNEL or a PNEC, a qualitative assessment of the likelihood that effects are avoided when implementing the exposure scenario shall be carried out.*"

The registered substance is classified as a skin sensitiser (Skin Sens 1B) and an irritant (Eye Damage 1 and Skin Irrit 2). In the CSR, you have provided only a *quantitative* assessment for consumer use. However, in the hazard conclusion you state that "*A qualitative assessment will be performed. The use of protective gloves is mandatory whenever a potential for relevant dermal exposure exists.*" You have identified that dermal local effects have medium hazard band both for workers and for the general population in the chapter on DNEL derivation.

ECHA notes, that you have provided a qualitative assessment for worker exposure assessment, but not for consumer use. ECHA points out that you have not provided any kind of risk management measures for consumer uses in the contributing scenario 3 controlling consumer exposure for PC 35 (washing and cleaning products including solvent based products). You have applied conditions of use according ConsExpo factsheet (metal cleaner application) with some modification. However, the risk management measures which should prevent the skin and inhalation contact to the substance are lacking in the consumer use scenario.

ECHA notes that the risk management measures for consumer use are limited and product-integrated measures are often the only appropriate RMMs for consumer products. According to ECHA *Guidance on information requirements and chemical safety assessment* (version

3.0, May 2016), Chapter E.3, Section E.3.4 (page 30): "*Risk management measures for corrosive or sensitising substances in consumer preparations are limited. Compliance in the implementation of technical controls and PPE is usually impossible to determine in a consumer population, therefore product-integrated measures (such as the maximum volume of the bottle, concentrations used, high viscosity of the product, child resistant fastening) are often the only appropriate RMMs that can be applied. Diluted preparations, child-resistant fastenings and product formulation, which prevent splashes (e.g. viscous or paste-like formulation) as well as labelling and correct use instructions are commonly recognized RMMs for consumer products".* Additional advice on performing consumer exposure assessment can be found from ECHA *Guidance on Information Requirements and Chemical safety Assessment,* Chapter R.15 (version 3.0 July 2016).

Therefore, pursuant to Article 41(1) and (3) of the REACH Regulation, you are requested to provide a qualitative exposure assessment demonstrating the likelihood that effects for skin sensitisation are avoided for consumer uses and to detail product-integrated risk management measures and revise the risk characterisation accordingly.

Deadline to submit the requested information in this decision

In your comments on the draft decision, you requested to align the timeline with the final decision on a previous compliance check on the registered substance that you had received on April 26th 2017 (CCH-D-2114359259-38-01/F). In that final decision, ECHA requested two studies following OECD TG 408 and OECD TG 414R, you had already started the studies, and the results of the requested studies affected certainly the derivation of long-term DNEL(s). In that final decision, the deadline for submitting the dossier update is set on May 3rd 2019. ECHA agrees with your argumentation. Therefore, ECHA has granted the request and set the deadline for submitting the dossier update to 3 May 2019 .

Appendix 2: Procedural history

For the purpose of the decision-making, this decision does not take into account any updates of your registration after the date when the draft decision was notified to you under Article 50(1) of the REACH Regulation.

The compliance check was initiated on 30 August 2017.

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

ECHA notified you of the draft decision and invited you to provide comments.

ECHA took into account your comments and amended the deadline.

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

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

Following communication from you indicating that the deadline of the decision was incorrect, ECHA corrected the deadline to **3 May 2019**. The deadline for this decision and the decision with the communication number, CCH-D-2114359259-38-01/F are now aligned.

Appendix 3: Further information, observations and technical guidance

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

2. 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 your Member State.