EUROPEAN CHEMICALS AGENCY

Decision number: CCH-D-2114290519-38-01/F Helsinki, 5 February 2015

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

For sulphur hexafluoride, CAS No 2551-62-4 (EC No 219-854-2), 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 sulphur hexafluoride, CAS No 2551-62-4 (EC No 219-854-2), 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 24 July 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 8 October 2013.

On 19 November 2013, ECHA sent the draft decision to the Registrant and invited him to provide comments within 30 days of receipt of the draft decision. That draft decision had been based on submission number [redacted]

On 18 December 2013, ECHA received comments from the Registrant on the draft decision. On 19 March 2014, the Registrant updated his registration dossier with the submission number [redacted] ECHA did not modify part II of this decision. However, ECHA modified Part III of this decision (statement of reasons) to address the Registrant's comments and update.

On 24 July 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 29 August 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 section III of the draft decision.

The present decision relates solely to a compliance check requesting information in form of requirements for Pre-natal developmental toxicity study (Annex IX, 8.7.2.) and Sub-chronic toxicity study (90-day), inhalation route (Annex IX, 8.6.2.). The other information requirement for Two-generation reproductive toxicity study (Annex [IX/X], 8.7.3) is addressed in a separate decision although all endpoints were initially addressed together in the same draft decision.

On 8 September 2014 ECHA referred the draft decision to the Member State Committee.

By 29 September 2014, in accordance to Article 51(5), the Registrant provided comments on the proposals for amendment. The Member State Committee took the comments of the Registrant on the proposals for amendment into account.

A unanimous agreement of the Member State Committee on the draft decision relating to pre-natal development toxicity and the sub-chronic toxicity (90–day) studies was reached on 13 October 2014 in a written procedure launched on 2 October 2014.

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

II. Information required

Pursuant to Articles 41(1), 41(3), 10(a)(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 substance subject to the present decision:

1. Sub-chronic toxicity study (90-day), inhalation route (Annex IX, 8.6.2.; test method: OECD 413) in rats;
2. Pre-natal developmental toxicity study (Annex IX, 8.7.2.; test method: EU B.31./OECD 414) in rats or rabbits, inhalation 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.

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 **12 August 2016**. 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.

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 or more tonnes per year shall contain as a minimum the information specified in Annexes IX and X of the REACH Regulation.

1. Sub-chronic toxicity study (90-day), inhalation 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 not provided any study record of a sub-chronic toxicity study (90-day) in the dossier that would meet the information requirement of Annex IX, Section 8.6.2. Instead, the Registrant has sought to adapt this information requirement. The justification of the adaptation given by the Registrant is: *"The REACH legislation (Column 2, Annex IX, 8.6.2) states that a 90-days study does not need to be conducted if the substance is unreactive, insoluble and not inhalable and there is no evidence of absorption and no evidence of toxicity in a 28-days "limit test", particularly if such a pattern is coupled with limited human exposure."* According to the Registrant, the substance is unreactive and is excreted rapidly from the body without forming metabolites. The Registrant argues further that, although the substance can be absorbed by inhalation, the substance has shown "extremely low acute toxicity" and that there was an absence of adverse effects in the combined 28-day sub-acute and reproductive toxicity screening study. Therefore, the Registrant concludes that according REACH Annex XI Section 1 the study is scientifically not necessary.

ECHA notes that evidence for the substance being "unreactive" is missing in the registration dossier, that the substance has a solubility of 30 mg/l, that the substance is inhalable (gas), and that the substance is absorbed. Therefore, ECHA considers that none of the four conditions for the adaptation according to Column 2 of Annex IX, 8.6.2. is met and, as consequence, the adaptation according to Annex IX, 8.6.2. Column 2 fails.

ECHA notes further that the Registrant has failed to specify, which of the general rules laid down in Annex XI Section 1 the adaptation follows. As a consequence, ECHA is not in a position to evaluate this adaptation, which in any case would need to be adequately documented and justified by the Registrant.

Therefore, the adaptation of the information requirement suggested by the Registrant cannot be accepted.

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.

According to the test method OECD 413 the rat is the preferred species. ECHA considers this species as being appropriate and testing should be performed with the rat. In light of the physico-chemical properties of the substance being a gas ECHA considers that testing by the inhalation route is most appropriate.

Following the receipt of the draft decision, the Registrant provided a dossier update which includes an adaptation according to Annex XI, Section 3.2(a) of the REACH Regulation (exposure-based adaptation using the quantitative route).

ECHA notes that the Registrant has provided a DNEL derived from a 28-day inhalation repeated dose toxicity study (NOAEC = 302687 mg/m³). Therefore, the adaptation provided by the Registrant cannot be accepted because according to footnote 1 of Annex XI, 3.2.(a)(ii) "*a DNEL derived from a 28-day repeated dose toxicity study shall not be considered appropriate to omit a 90-day repeated dose toxicity study.*" For this reason alone, the adaptation provided by the Registrant cannot be accepted.

Furthermore, Annex XI, 3.2.(a)(i) requires that "*the results of the exposure assesment covering all relevant exposures throughout the life cycle of the substance demonstrate the absence of or no significant exposure in all scenarios of the manufacture and all identified uses...*" However, long-term inhalation exposure to workers has been reported within the CSR for several exposure scenarios. In the absence of a robust DNEL, reported values as high as 34.08 mg/m^3 cannot be regarded as incontrovertible evidence of no or no significant exposure. Further, the exposure estimation of gases is outside the domain of reliable application of the ECETOC TRA worker exposure model. The guidance to the ECETOC TRA worker exposure model specifically states that it does not predict exposure to gases. ECHA thus concludes that the estimates are inherently unreliable for the purposes of proving "*absence of or no significant exposure*". In the light of the above considerations, the adaptation provided by the Registrant cannot be accepted.

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: Sub-chronic inhalation toxicity: 90-day study (test method: OECD 413) in rats.

2. 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 technical dossier the Registrant has provided a study record for a "combined repeated dose toxicity study with the reproduction/developmental toxicity screening test" (test method: OECD 422). However, this study does not provide the information required by Annex IX, Section 8.7.2., because it does not cover key parameters of a pre-natal developmental toxicity study like examinations of foetuses for skeletal and visceral alterations.

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. The justification of the adaptation given by the Registrant is that: "*In accordance with section 1 of REACH Annex XI, waiving of developmental toxicity studies is considered justified as no adverse effects were observed in acute toxicity studies and in the combined repeated dose/reproduction inhalation toxicity study and based on the substance chemical inertness and its rapid excretion.*"

ECHA notes that the Registrant has failed to specify, which of the general rules laid down in Annex XI Section 1 the adaptation follows. As a consequence, ECHA is not in a position to evaluate this adaptation, which in any case would need to be adequately documented and justified by the Registrant.

Therefore, the adaptation of the information requirement suggested by the Registrant cannot be accepted.

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.

Following the receipt of the draft decision, the Registrant provided a dossier update which includes an adaptation according to Annex XI, Section 3.2(a) of the REACH Regulation (exposure-based adaptation using the quantitative route).

Firstly, ECHA emphasises that the general statement provided by the Registrant that the European Medicines Agency concluded that the substance is not a developmental toxicant cannot be taken into account because the Registrant has not provided a corresponding endpoint study record with the dossier update. Therefore, ECHA is not in the position to draw any conclusions from the general statement.

With respect to the adaptation according to Annex XI, 3.2(a), ECHA notes that the Registrant has provided a DNEL derived from an OECD Guideline 422 study (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test; NOAEC = 302687 mg/m³). Therefore, the adaptation provided by the Registrant cannot be accepted because according to footnote 1 of Annex XI, 3.2.(a)(ii) "*a DNEL derived from a screening test for reproductive/developmental toxicity shall not be considered appropriate to omit a pre-natal developmental toxicity study [...].*" For this reason alone, the adaptation provided by the Registrant cannot be accepted.

Furthermore, Annex XI, 3.2.(a)(i) requires that "*the results of the exposure assesment covering all relevant exposures throughout the life cycle of the substance demonstrate the absence of or no significant exposure in all scenarios of the manufacture and all identified uses...*" However, long term inhalation exposure to workers has been reported within the CSR for several exposure scenarios. In the absence of a robust DNEL, reported values as high as 34.08 mg/m^3 cannot be regarded as incontrovertible evidence of no or no significant exposure. Further, the exposure estimation of gases is outside the domain of reliable application of the ECETOC TRA worker exposure model. The guidance to the ECETOC TRA worker exposure model specifically states that it does not predict exposure to gases. ECHA thus concludes that the estimates are inherently unreliable for the purposes of proving "*absence of or no significant exposure*". In the light of the above considerations, the adaptation provided by the Registrant cannot be accepted.

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. However, since the substance is a gas, ECHA considers that testing with the rat or the rabbit as a first species via the inhalation route is most appropriate.

Therefore, 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 inhalation 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, 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, 8.7.2.

3. Note for consideration by the Registrant

ECHA notes that it is the responsibility of the Registrant to decide whether to perform a limit test as per the relevant guidelines and/or guidance documents.

4. Deadline for submitting the information

In the draft decision communicated to the Registrant the time indicated to provide the requested information was 36 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 two-generation reproductive toxicity study (Annex X, 8.7.3.). As this endpoint is not addressed in the present decision, ECHA considers that a reasonable time period for providing the required information in the form of an updated IUCLID5 dossier is 18 months from the date of the adoption of the 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]
Leena Ylä-Mononen
Director of Evaluation