EUROPEAN CHEMICALS AGENCY

Helsinki, 5 July 2012

Decision number: TPE-D-0000002344-80-04/F

DECISION ON A TESTING PROPOSAL SET OUT IN A REGISTRATION PURSUANT TO ARTICLE 40(3) OF REGULATION (EC) NO 1907/2006

For Boron trifluoride, CAS No. 7637-07-2 (EC No. 231-569-5), 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 40(1) of the REACH Regulation, ECHA has examined a testing proposal set out in the registration dossier for **Boron trifluoride, CAS No. 7637-07-2 (EC No. 231-569-5)**, submitted by [redacted] (Registrant), latest submission number [redacted], for 1000 tonnes or more per year.

In accordance with Articles 10(a)(ix) and 12(1)(e) of the REACH Regulation, the Registrant submitted the following testing proposal as part of the registration dossier to fulfil the information requirements set out in Annex IX:

Mammalian erythrocyte micronucleus test, OECD Guideline 474.

The examination of the testing proposal was initiated on 18 November 2010.

ECHA opened a third party consultation for the testing proposal including testing on vertebrate animals that was held from 1 July 2011 until 15 August 2011. ECHA did receive information from third parties (see section III below).

On 24 November 2011 ECHA sent the draft decision to the Registrant and invited him to provide comments within 30 days of the receipt of the draft decision.

On 28 December 2011 the Registrant provided comments on the draft decision. ECHA took the comments into account and amended the draft decision.

On 2 March 2012 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. Subsequently, the Competent Authorities of the Member States submitted proposals for amendment to the draft decision. ECHA reviewed the proposals for amendment received and decided to modify the draft decision.

On 4 April 2012 ECHA notified the Registrant of proposals for amendment to the draft decision and invited him pursuant to Article 51(5) of the REACH Regulation to provide comments on those proposals within 30 days of the receipt of the notification.

On 16 April 2012, the draft decision was referred to the Member State Committee.

On 3 May 2012 the Registrant provided comments on the proposed amendments. The Member State Committee took the comments of the Registrant into account.

After discussion in the Member State Committee meeting on 6-8 June 2012, a unanimous agreement of the Member State Committee on the draft decision as referred to MSC and modified at the meeting was reached on 8 June 2012.

This decision does not imply that the information provided by the Registrant in his registration dossier is in compliance with the requirements of the REACH Regulation. The decision does not prevent ECHA to initiate a compliance check on the present dossier at a later stage.

II. Testing required

Pursuant to Article 40(3)(b) of the REACH Regulation, the Registrant shall carry out the following proposed test using the indicated test method and the dihydrated form of the registered substance subject to the present decision:

> Mammalian erythrocyte micronucleus test, inhalation route, (Annex IX, 8.4., test method: EU B.12/OECD 474) according to the conditions specified in section III

Pursuant to Articles 40(4) and 22 of the REACH Regulation, the Registrant shall submit to ECHA by **5 July 2013** an update of the registration dossier containing the information required by this decision.

At any time, the Registrant shall take into account that there may be an obligation to make every effort to agree on sharing of information and costs with other Registrants.

III. Statement of reasons

The decision of ECHA is based on the examination of the testing proposal submitted by the Registrant for the registered substance and scientific information submitted by third parties.

Mammalian erythrocyte micronucleus test

a) Examination of the testing proposal

Pursuant to Article 40(3)(b) of the REACH Regulation, ECHA may require the Registrant to carry out the proposed test under modified conditions.

The Registrant has submitted a positive *in vitro* cytogenicity study in mammalian cells (chromosome aberration). Mammalian erythrocyte micronucleus test is part of the standard information requirements as laid down in Annex IX, section 8.4. of the REACH Regulation, if there is a positive result in any of the *in vitro* genotoxicity studies in Annexes VII or VIII and there are no results available from an *in vivo* study already. The information on this endpoint is not available for the registered substance but needs to be present in the technical dossier to meet the information requirements. Consequently there is an information gap and it is necessary to generate the data for this endpoint.

In response to ECHA's draft decision, the Registrant indicated that he intends to conduct the requested study with boron trifluoride dihydrate whereas the original testing proposal as contained in the technical registration dossier does not indicate the substance to be tested. ECHA considered that the original testing proposal was made for the registered substance - Boron trifluoride - but the Registrant in his comments suggested using boron trifluoride dihydrate as the test substance. The Registrant provided the following justification: "upon exposure to moisture in air even at low concentration boron trifluoride will react to form a stable dihydrate. The purity of the test substance will be around 60% of Boron trifluoride and 40% of water". ECHA notes that the two forms of the substance are chemically different. However, in this particular case, due to the rapid reaction of the anhydrous form of the registered substance on contact with moisture present in the air, the hydrated form of the registered substance can be considered appropriate for testing.

Therefore, ECHA concludes that the Mammalian erythrocyte micronucleus test can be conducted with the dihydrated form of the registered substance.

The Registrant did not specify the route to be used for testing. The substance to be tested, boron trifluoride dihydrate, is formed as an aerosol following contact of the registered substance anhydrous boron trifluoride (gas) with moisture present in the air. Therefore, the most appropriate route of exposure is inhalation. The Registrant did not specify the species to be tested. Therefore, the Registrant shall follow the recommendations in the test guideline when selecting the appropriate species for testing.

ECHA emphasises that the Registrant needs to demonstrate that the test method is applicable to the test substance taking into account specifically paragraph 7 of the OECD TG 474 ("if there is evidence that the test substance, or a reactive metabolite, will not reach the target tissue, it is not appropriate to use this test").

In case the Registrant can not demonstrate this, the proposed test is not appropriate to meet the information requirement (Annex IX, 8.4), and the Registrant is requested to submit a testing proposal for another *in vivo* mutagenicity test such as the Comet assay, and to specify the conditions of the proposed test with special attention to the site-of-contact (see Guidance on information requirements and chemical safety assessment, R.7.7.6.3, Testing strategy for mutagenicity).

b) Consideration of third party information

ECHA received third party information concerning the testing proposal during the public consultation. For the reasons explained further below the information provided by the third party is not sufficient to fulfil this information requirement.

The third party has proposed not to conduct the test since boron trifluoride is corrosive. Due to its corrosive nature, exposures to workers are avoided. Likewise, laboratory animals should not be exposed to corrosive materials where such exposures will result in unnecessary suffering.

ECHA notes that REACH Regulation provides measures to protect animal welfare. Specifically, Article 13(4) of REACH requires that toxicological and ecotoxicological tests shall be carried out in compliance with EU Directive 86/609/EEC on animal protection which sets out the basic requirements for the care and accommodation of laboratory animals, and stipulates that experiments shall be designed to avoid distress and unnecessary pain and suffering to the animal. Additionally, according to the general part of Annexes VII-X, *in vivo* testing with corrosive substances at concentration/dose levels causing corrosivity shall be avoided. Therefore, in such situation when the testing of corrosive or severely irritating substances on animals is necessary in order to protect human health, the targeted exposure

concentrations should not induce severe irritation or corrosive effects, yet be sufficient to extend the concentration-response curve to levels that satisfy the regulatory and scientific purpose of the test concerned. ECHA also notes that the Registrant has already conducted and submitted in the registration dossier repeated inhalation exposure toxicity studies on experimental animals. These data provide information on the exposure response characteristics of this corrosive substance and show that levels of exposure could be achieved at which no irritation or minimal irritation were observed in experimental procedures.

Therefore, ECHA concludes that on this occasion, the information submitted does not provide a sufficient basis on which to reject the proposed test.

IV. Adequate identification of the composition of the tested material

The process of evaluation of testing proposals set out in Article 40 of the REACH Regulation aims at ensuring that the generation of information is tailored to real information needs in order to prevent unnecessary testing. The information submitted in the registration dossier was sufficient to confirm the identity of the substance for the purpose of assessing the testing proposal. It is note, however, that this information, or the information submitted by other registrants of the same 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 proposed test, the sample of substance used for the new study 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 the joint registrants of the same substance to agree with the test proposed in the testing proposal (as applicable to their tonnage level) and to document the necessary information on its composition. The substance identity information of the registered substance and of the sample tested must enable ECHA to confirm the relevance of the testing for the substance actually registered by each joint registrant. Finally, the study must be shared by the joint registrants concerned.

V. General requirements for the generation of information and Good Laboratory Practice

ECHA reminds registrants of the requirements of Article 13(4) of the REACH Regulation that ecotoxicological and toxicological tests and analyses shall be carried out in compliance with the principles of good laboratory practice (GLP).

According to Article 13(3) of the REACH Regulation, tests that are required to generate information on intrinsic properties of substances shall be conducted in accordance with the test methods laid down in a Commission Regulation or in accordance with other international test methods recognised by the Commission or the European Chemicals Agency as being appropriate. Thus, the Registrant shall refer to Commission Regulation (EC) No 440/2008 laying down test methods pursuant to Regulation (EC) No 1907/2006 as adapted to technical progress or to other international test methods recognised as being appropriate and use the applicable test methods to generate the information on the endpoints indicated above.

VI. 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 appeal shall be lodged within three months of receiving notification of this decision. Further information on the appeal procedure can be found on the 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.

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Geert Dancet
Executive Director