Helsinki, 19 February 2020

Addressee
Registrant of JS_100-79-8 listed in the last Appendix of this decision

Date of submission for the jointly submitted dossier subject of this decision
19 October 2018

Registered substance subject to this decision, hereafter 'the Substance'
Substance name: 2,2-dimethyl-1,3-dioxolan-4-ylmethanol
EC number: 202-888-7
CAS number: 100-79-8

Decision number: [Please refer to the REACH-IT message which delivered this communication (in format CCH-D-XXXXXXXXXX-XX-XX/D)]

DECISION ON A COMPLIANCE CHECK

Based on Article 41 of Regulation (EC) No 1907/2006 (REACH), ECHA requests that you submit the information listed below by the deadline of ***26 February 2021***.

A. Requirements applicable to all the Registrants subject to Annex VIII of REACH

1. In vitro gene mutation study in mammalian cells (Annex VIII, Section 8.4.3.; test method OECD TG 476 or TG 490) with the Substance.

Conditions to comply with the requests

You are bound by the requests for information corresponding to the REACH Annexes applicable to your registered tonnage of the Substance at the time of evaluation of the jointly submitted dossier. You have to comply with the requirements of Annexes VII and VIII of REACH, if you have registered a substance at 10-100 tpa.

The Appendices state the reasons for the request for information to fulfil the requirement set out above.

The Appendix entitled Observations and technical guidance addresses the generic approach for the selection and reporting of the test material used to perform the required study and provides generic recommendations and references to ECHA guidance and other reference documents.

You must submit the information requested in this decision by the deadline indicated above in an updated registration dossier and also update the chemical safety report, where relevant, including any changes to classification and labelling, based on the newly generated information.

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.

Approved[1] under the authority of Christel Schilliger-Musset, Director of Hazard Assessment

[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 A: Reasons for the requests to comply with Annex VIII of REACH

Under Articles 10(a) and 12(1) of REACH, a technical dossier registered at 10 to 100 tonnes or more per year must contain, as a minimum, the information specified in Annexes VII and VIII to REACH.

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

An *in vitro* gene mutation study in mammalian cells is a standard information requirement in Annex VIII to REACH in case of a negative result in the *in vitro* gene mutation test in bacteria and the *in vitro* cytogenicity test.

Your dossier contains negative results for both an Ames test and an *in vivo* micronucleus study. There is no *in vitro* cytogenicity study as you provided an *in vivo* micronucleus study, with negative results, to adapt the information requirement of Annex VIII, Section 8.4.2.

Therefore, the information requirement is triggered.

For Annex VIII, 8.4.3., you have not provided any study in your dossier. However, you provided adaptations according to Annex VIII, Section 8.4.3., column 2, and under the general rules for adaptation in accordance with Annex XI, Section 1.2. (weight of evidence).

To support the above-mentioned adaptations you refer to two key studies provided in your dossier with the Substance:

i. Ames study (OECD TG 471 / Rel. 2 / GLP) / [redacted] 2009 / study report; and
ii. *In vivo* micronucleus (OECD TG 474 / Rel. 1 / GLP) / [redacted] 2009 / study report.

Additionally, you also provide a statement claiming a lack of genotoxicty for the "raw materials" of the Substance.

We have assessed this information and identified the following issues:

a. Column 2 adaptation

To fulfil this adaptation, the study must qualify as an "*in vivo* mammalian gene mutation test" according to Annex VIII, Section 8.4.3., column 2. According to the ECHA Guidance R.7a (Table R.7.7-3), the Transgenic Rodent Somatic and Germ Cell Gene Mutation Assay, performed according to OECD TG 488, is the *in vivo* mammalian gene mutation test.

You have provided an *in vivo* micronucleus test (study ii. above).

This test is not a Transgenic Rodent Somatic and Germ Cell Gene Mutation Assay. Therefore, your adaptation is rejected.

b. Weight of evidence

You have also adapted the standard information requirement according to Annex XI, Section 1.2. Weight of evidence of REACH.

Annex XI, Section 1.2 states that there may be sufficient weight of evidence (WoE) from several independent sources of information leading to assumption/conclusion that a substance has or has not a particular dangerous (hazardous) property, while information from a single source alone is insufficient to support this notion.

According to ECHA Guidance R.4.4, a weight of evidence adaptation involves an assessment of the relative values/weights of the different sources of information submitted based on the reliability of the data, consistency of results/data, nature and severity of effects, and relevance of the information for the given regulatory endpoint. Subsequently, relevance, reliability, consistency and results of these lines of evidence must be balanced in order to decide whether they provide sufficient weight to conclude that the Substance has or has not the dangerous property investigated by the required study.

In the present case, the weight of evidence adaptation may allow concluding on mutagenicity of the Substance if the sources of information provide sufficient information on the dangerous property foreseen to be investigated in an *in vitro* gene mutation study in mammalian cells performed in accordance with the OECD TG 476 or OECD TG 490. The essential key parameter for the dangerous property investigated by this test method include the investigation of gene mutations induced by chemicals in (*in vitro*) mammalian cells.

We have assessed to what extent the sources of information submitted enables a conclusion on this dangerous property and identified the following deficiencies:

1) The key parameter is not investigated by any of the sources of information

   In your dossier you only provided the studies mentioned above (studies i. and ii.). You have justified the WoE as follows: "*both in vitro Ames and in vivo micronucleus tests were negative. In addition to this assay, weight of evidence data are available for the raw materials in which 2,2-Dimethyl-1,3-dioxolane-4-methanol will reverse in the presence of acid pH and water, namely acetone and glycerin, indicating a lack of genotoxicity. Based on these data, it was not deemed scientifically necessary to conduct an in vitro mammalian cell mutagenicity assay*."

   However, the two above mentioned studies do not address the key parameters foreseen to be investigated in an OECD TG 476 or 490 study. More specifically, the Ames study (study i.) is not conducted in mammalian cells but in bacteria; and the *in vivo* micronucleus study (study ii.) does not investigate gene mutation but chromosomal aberrations.

2) Statement on lack of genotoxicity of the "raw materials"

   In your justification you refer to the "*lack of genotoxicity*" of the "*raw materials*" of the Substance. We understand that you refer to the precursors of the substance (acetone and glycerine) which are not genotoxic. However you did not provide any data or scientific explanation on these "*raw materials*" to substantiate this statement.

As there is no source of information in your dossier which investigates gene mutations in mammalian cells, it is not possible to evaluate the possible hazardous property for gene mutation in mammalian cells covered by this information requirement. Therefore, it is not possible to conclude, based on any source of information alone or considered together, whether your Substance has or has not the particular hazardous property foreseen to be investigated in an OECD TG 476 or 490 study. Your adaptation is rejected and the information requirement is not fulfilled.

In your comments you agree to perform the study according to OECD TG 490. You indicate that the "*OECD 476 is an old version of the study OECD 490*". However, ECHA notes that to fulfil the information requirement for the Substance, you can choose between OECD TG 476

or 490 as both the *in vitro* mammalian cell gene mutation tests using the hprt and xprt genes (OECD TG 476) and the thymidine kinase gene (OECD TG 490) are considered suitable.

Appendix B: Procedural history

For the purpose of the decision-making, this decision does not take into account any updates of registration dossiers after the date on which you were notified the draft decision according to Article 50(1) of REACH.

The compliance check was initiated on 22 March 2019.

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 within 30 days of the notification.

In your comments you agreed to the draft decision. ECHA took your comments into account and did not amend the request.

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

As no amendments were proposed, ECHA adopted the decision under Article 51(3) of REACH.

Appendix C: Observations and technical guidance

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

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

3. Test guidelines, GLP requirements and reporting

   Under Article 13(3) of REACH, all new data generated as a result of this decision needs to be conducted according to the test methods laid down in a European Commission Regulation or according to international test methods recognised by the Commission or ECHA as being appropriate.

   Under Article 13(4) of REACH, ecotoxicological and toxicological tests and analyses shall be carried out according to the GLP principles (Directive 2004/10/EC) or other international standards recognised by the Commission or ECHA.

   Under Article 10 (a) (vi) and (vii) of REACH, all new data generated as a result of this decision must be reported as study summaries, or as robust study summaries, if required under Annex I of REACH. See ECHA Practical Guide: 'How to report robust study summaries'[2].

4. Test material

   Selection of the test material(s)

   The registrants of the Substance are responsible for agreeing on the composition of the test material to be selected for carrying out the tests required by the present decision. The test material selected must be relevant for all the registrants of the Substance, i.e. it takes into account the variation in compositions reported by all members of the joint submission. The composition of the test material(s) must fall within the boundary composition(s) of the Substance.

   While selecting the test material you must take into account the impact of each constituent/ impurity on the test results for the endpoint to be assessed. For example, if a constituent/ impurity of the Substance is known to have an impact on (eco)toxicity, the selected test material must contain that constituent/ impurity.

   Technical reporting of the test material

   The composition of the selected test material must be reported in the respective endpoint study record, under the Test material section. The composition must include all constituents of the test material and their concentration values. Without such detailed reporting, ECHA may not be able to confirm that the test material is relevant for the Substance and to all the registrants of the Substance.

   Technical instructions are available in the manual "How to prepare registration and PPORD dossiers"[3].

[2] https://echa.europa.eu/practical-guides
[3] https://echa.europa.eu/manuals

5. List of references of the ECHA Guidance and other guidance/ reference documents[4]

Evaluation of available information
Guidance on information requirements and chemical safety assessment, Chapter R.4 (version 1.1., December 2011), referred to as ECHA Guidance R.4 in this decision.

QSARs, read-across and grouping
Guidance on information requirements and chemical safety assessment, Chapter R.6 (version 1.0, May 2008), referred to as ECHA Guidance R.6 in this decision.

ECHA Read-across assessment framework (RAAF, March 2017)[5]

Physical-chemical properties
Guidance on information requirements and chemical safety assessment, Chapter R.7a (version 6.0, July 2017), referred to as ECHA Guidance R.7a in this decision.

Toxicology
Guidance on information requirements and chemical safety assessment, Chapter R.7a (version 6.0, July 2017), referred to as ECHA Guidance R.7a in this decision.

Guidance on information requirements and chemical safety assessment, Chapter R.7c (version 3.0, June 2017), referred to as ECHA Guidance R.7c in this decision.

Environmental toxicology and fate
Guidance on information requirements and chemical safety assessment, Chapter R.7a (version 6.0, July 2017), referred to as ECHA Guidance R.7a in this decision.

Guidance on information requirements and chemical safety assessment, Chapter R.7b (version 4.0, June 2017), referred to as ECHA Guidance R.7b in this decision.

Guidance on information requirements and chemical safety assessment, Chapter R.7c (version 3.0, June 2017), referred to as ECHA Guidance R.7c in this decision.

PBT assessment
Guidance on information requirements and chemical safety assessment, Chapter R.11 (version 3.0, June 2017), referred to as ECHA Guidance R.11 in this decision.

Guidance on information requirements and chemical safety assessment, Chapter R.16 (version 3.0, February 2016), referred to as ECHA Guidance R.16 in this decision.

OECD Guidance documents[6]
Guidance Document on aqueous-phase aquatic toxicity testing of difficult test chemicals – No 23, referred to as OECD GD23.
Guidance Document on Mammalian Reproductive Toxicity Testing and Assessment – No 43, referred to as OECD GD43.

[4] https://echa.europa.eu/guidance-documents/guidance-on-information-requirements-and-chemical-safety-assessment
[5] https://echa.europa.eu/support/registration/how-to-avoid-unnecessary-testing-on-animals/grouping-of-substances-and-read-across
[6] http://www.oecd.org/chemicalsafety/testing/series-testing-assessment-publications-number.htm

Appendix D: List of the registrants to which the decision is addressed and the corresponding information requirements applicable to them

Registrant Name	Registration number	(Highest) Data requirements to be fufilled
[redacted]	[redacted]	[redacted]

Note: where applicable, the name of a third party representative (TPR) may be displayed in the list of recipients whereas the decision is sent to the actual registrant.