~~Confidential~~

Helsinki, 09 June 2021

Addressees
Registrants of zinc methacrylate as listed in the last Appendix of this decision

Date of submission of the dossier subject to this decision
19/06/2014

Registered substance subject to this decision ("the Substance")
Substance name: Zinc methacrylate
EC number: 236-144-8
CAS number: 13189-00-9

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

DECISION ON A COMPLIANCE CHECK

Under Article 41 of Regulation (EC) No 1907/2006 (REACH), you must submit the information listed below, by the deadline of ***14 September 2022***.

Requested information must be generated using the Substance unless otherwise specified.

A. Information required from all the Registrants subject to Annex VIII of REACH

1. In vitro cytogenicity study in mammalian cells (Annex VIII, Section 8.4.2.; test method: OECD TG 473) or In vitro micronucleus study (Annex VIII, Section 8.4.2.; test method: OECD TG 487)

Reasons for the request(s) are explained in the following appendix:

- Appendix entitled "Reasons to request information required under Annexes VII to VIII of REACH", respectively.

Information required depends on your tonnage band

You must provide the information listed above for all REACH Annexes applicable to you, and in accordance with Articles 10(a) and 12(1) of REACH:

- the information specified in Annexes VII and VIII to REACH, for registration at 10-100 tpa;
- the information specified in Annexes VII, VIII and IX to REACH, for registration at 100-1000 tpa;
- the information specified in Annexes VII to X to REACH, for registration at more than 1000 tpa.

You are only required to share the costs of information that you must submit to fulfil your information requirements.

How to comply with your information requirements

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

You must follow the general testing and reporting requirements provided under the Appendix entitled "Requirements to fulfil when conducting and reporting new tests for REACH purposes". In addition, you should follow the general recommendations provided under the Appendix entitled "General recommendations when conducting and reporting new tests for REACH purposes". For references used in this decision, please consult the Appendix entitled "List of references".

Appeal

This decision, when adopted under Article 51 of REACH, may be appealed to the Board of Appeal of ECHA within three months of its notification to you. Please refer to http://echa.europa.eu/regulations/appeals for further information.

Failure to comply

If you do not comply with the information required by this decision by the deadline indicated above, ECHA will notify the enforcement authorities of your Member State.

Authorised[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 to request information required under Annex VIII of REACH

1. In vitro cytogenicity study in mammalian cells or In vitro micronucleus study

An *in vitro* cytogenicity study in mammalian cells or an *in vitro* micronucleus study is a standard information requirement in Annex VIII to REACH.

You have adapted this standard information requirement by applying a weight-of-evidence approach in accordance with Annex XI, Section 1.2.

In support of your adaptation you have provided the following *in vitro* source of information:

i. Anderson (1990), a sister chromatid exchange assay in CHO cells with the analogue methyl methacrylate.

In addition you have provided the following *in vivo* sources of information:

ii. Gocke (1981), a Drosophila SLRL assay with the analogue zinc sulphate.
iii. Gocke (1981), a micronucleus assay with the analogue zinc sulphate.
iv. [redacted] (1974), a rodent dominant lethal assay with the analogue zinc sulphate.
v. [redacted] (1994), a chromosome aberration and sister chromatid exchange assay with the analogue methyl methacrylate.
vi. Hachiya (1982), similar to OECD TG 474 (Mammalian Erythrocyte Micronucleus Test) with the analogue methyl methacrylate.

In your comments to the draft decision, you have included a genetic toxicity summary (both *in vitro* and *in vivo*) of the studies listed above and also referring to studies that are not available in the dossier for which robust study summaries are not provided with the comments (e.g. [redacted], 1978; [redacted], 1978; [redacted], 1991; [redacted], 1982; [redacted] 1976, 1979). ECHA notes that the studies referred to in your comments which are not contained in your registration dossier cannot be assessed, because you have not provided adequate and reliable documentation in a form of a robust study summary, as required by Article 10(a)(vii) and Article 3(28).

In addition, it is noted that you have provided with your comments a read across approach justification mentioning the metabolism of the substance, reaching to the conclusion that both oral and inhalation exposure to zinc methacrylate will lead to systemic exposure to zinc and methacrylic acid, so that it is justified to refer to the toxicological properties of both moieties.

Annex XI, Section 1.2 states that there may be sufficient weight of evidence 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, a weight of evidence adaptation involves an assessment of the relative values/weights of the different sources of information submitted. The weight given is based on the reliability of the data, consistency of results/data, nature and severity of effects, and relevance and coverage of the information for the given regulatory information requirement. Subsequently, relevance, reliability, coverage, consistency and results of these sources of information must be balanced in order to decide whether they together provide sufficient weight to conclude that the Substance has or has not the (dangerous) property investigated by the required study.

Annex XI, section 1.2 requires that adequate and reliable documentation is provided to describe your weight of evidence approach.

However, you have not submitted any explanation why the sources of information provide sufficient weight of evidence leading to the conclusion/assumption that the Substance has or has not a particular dangerous property.

In spite of this critical deficiency, ECHA has nevertheless assessed the validity of your adaptation and identified the following issues.

To fulfil the information requirement, normally a study performed according to OECD TG 473/487 must be provided. OECD TG 473/487 requires the study to investigate the following: Detection and quantification of structural or numerical chromosomal aberrations in cultured mammalian cells including data on the cytotoxicity and the frequency of cells with chromosomal aberrations or micronuclei.

Source of information (iv.) is an *in vivo* study that investigates chromosomal aberrations in germ cells. In addition, the source of information (ii.) investigates mutations in the X-chromosome of *Drosophila melanogaster*. The ECHA Guidance R.7.7.3.1. clarifies that the *in vivo* cytogenicity test that can be used to omit the study according to OECD TG 473/487 must be either a micronucleus test or a chromosomal aberration test, performed according to OECD TG 474 or 475, respectively[1]. OECD TGs 474/475 investigate chromosomal aberrations in somatic cells. Though the source of information (iv.) may provide information on chromosomal aberrations, it does not provide relevant information on somatic cells as the study is on germ cells only. Also the source of information (ii.) is not performed in mammalian somatic cells but in insects. Therefore, these sources of information (ii., iv.) cannot contribute to the weight of evidence adaptation.

The sources of information i., iii., v. and vi., provide relevant information on chromosomal aberrations in somatic cells of animals.

However, the reliability of these sources of information is significantly affected by the following deficiencies which are also not resolved on the basis of the information provided with your comments (genetic toxicity summary), as they are not addressed:

- The specifications of OECD TG 473/487 include that at least 300 well-spread metaphases must be scored per concentration. In the reported data for study (i) in the registration dossier you did not specify the number of evaluated metaphases for each concentration. In your comments you mention that fifty cells were scored per dose for Sister Chromatid Exchange (SCE).

  As indicated in OECD TG 473 this information is required to conclude whether a test chemical is clearly negative. Therefore the acceptability criteria of the OECD TG 473 are not met and the provided study cannot be considered as a reliable source of information that could contribute to the conclusion on this information investigated by the required study.

- The specifications/conditions of OECD TG 474 include: (a) each group must have a minimum of 5 analysable animals (the test can be performed in either sex); (b) the scoring of at least 4000 immature erythrocytes per animal.

However, the reported data for study iii. indicates that (a) only 4 animals were used in each treatment and control groups; (b) only 1000 polychromatic erythrocytes were scored per mouse.

As indicated in OECD TG 474, this information is required to establish the acceptability of the test. Due to the deficiencies explained above the acceptability criteria of the study are not fulfilled. Therefore, the test results, provided in study iii., cannot be considered as a reliable source of information that could contribute to the conclusion on chromosomal aberration in somatic cells investigated by the required studies.

- Pursuant to Article 10(a)(vii) of the REACH Regulation, the information set out in Annex VII to XI must be provided in the form of a robust study summary. Article 3(28) defines a robust study summary as a detailed summary of the objectives, methods, results and conclusions of a full study report providing sufficient information to make an independent assessment of the study minimising the need to consult the full study report.

  However, for the sources of information (v. and vi.) you have not provided adequate and reliable documentation in a form of a robust study summary, as required by Article 10(a)(vii) and Article 3(28).

Taken together, even if the sources of information (i., iii., v. and vi.) provide information on chromosomal aberrations in somatic cells in animals, their reliability is affected so significantly that they cannot be taken into consideration in a weight of evidence approach.

In a separate annex (Annex I) to your comments to the draft decision you agree with ECHA's assessment of studies i.-vi., but you argue that *"It however contributes to the overall weight of evidence package"* without providing any more information. Moreover, regarding studies iv, v. and vi. you mention that *"Additional information will be provided via an update of the Robust Study Summary."* ECHA notes that your claim that the provided studies contribute to the overall weight of evidence package is not substantiated. Moreover, this decision does not take into account updates of the registration dossiers after the date on which you were notified of the draft decision according to Article 50(1) of REACH(see section 5.4. of ECHA's Practical Guide "How to act in Dossier Evaluation).

For these reasons, 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 dangerous property foreseen to be investigated in the required studies. Therefore, your adaptation is rejected and the information requirement is not fulfilled.

Study design

To fulfil the information requirement for the Substance, either *in vitro* cytogenicity study in mammalian cells (Annex VIII, Section 8.4.2., test method OECD TG 473) or *in vitro* micronucleus study (Annex VIII, Section 8.4.2., test method OECD TG 487) are considered suitable.

Appendix B: Requirements to fulfil when conducting and reporting new tests for REACH purposes

A. Test methods, GLP requirements and reporting

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

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

3. 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 on How to report robust study summaries[2].

B. Test material

Before generating new data, you must agree within the joint submission on the chemical composition of the material to be tested (Test Material) which must be relevant for all the registrants of the Substance.

1. Selection of the Test material(s)

   The Test Material used to generate the new data must be selected taking into account the following:
   - the variation in compositions reported by all members of the joint submission,
   - the boundary composition(s) of the Substance,
   - 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.

2. Information on the Test Material needed in the updated dossier
   - You must report the composition of the Test Material selected for each study, under the "Test material information" section, for each respective endpoint study record in IUCLID.
   - The reported composition must include all constituents of each Test Material and their concentration values and other parameters relevant for the property to be tested.

This information is needed to assess whether the Test Material is relevant for the Substance and whether it is suitable for use by all members of the joint submission.

Technical instructions on how to report the above is available in the manual on How to prepare registration and PPORD dossiers[3].

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

Appendix C: Procedure

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

ECHA followed the procedure detailed in Articles 50 and 51 of REACH.

The compliance check was initiated on 07 August 2019.

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

ECHA took into account your comments and did not amend the request(s).

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 D: List of references - ECHA Guidance[4] and other supporting documents

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 where relevant.

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 where relevant.

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

RAAF - considerations on multiconstituent substances and UVCBs (RAAF UVCB, 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.

Data sharing
Guidance on data-sharing (version 3.1, January 2017), referred to as ECHA Guidance on data sharing in this decision.

OECD Guidance documents[6]

[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

Guidance Document on aqueous–phase aquatic toxicity testing of difficult test chemicals – No 23, referred to as OECD GD 23.

Guidance document on transformation/dissolution of metals and metal compounds in aqueous media – No 29, referred to as OECD GD 29.

Guidance Document on Standardised Test Guidelines for Evaluating Chemicals for Endocrine Disruption – No 150, referred to as OECD GD 150.

Guidance Document supporting OECD test guideline 443 on the extended one-generation reproductive toxicity test – No 151, referred to as OECD GD 151.

Appendix E: Addressees of this decision and the corresponding information requirements applicable to them

You must provide the information requested in this decision for all REACH Annexes applicable to you.

Registrant Name	Registration number	Highest REACH Annex applicable to you
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

Where applicable, the name of a third party representative (TPR) may be displayed in the list of recipients whereas ECHA will send the decision to the actual registrant.