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**COMMISSION IMPLEMENTING DECISION**

**of 12.6.2024**

**partially granting an authorisation under Regulation (EC) No 1907/2006 of the  
European Parliament and of the Council to Betz-Chrom GmbH for a use of chromium  
trioxide**

(Only the German text is authentic)

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THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC<sup>1</sup>, and in particular Article 64(8) thereof,

Whereas:

- (1) Chromium trioxide is listed in Annex XIV to Regulation (EC) No 1907/2006 and uses of that substance are subject to the authorisation requirement in Article 56(1), point (a), of that Regulation.
- (2) On 15 February 2021, Betz-Chrom GmbH ('the applicant') submitted an application in accordance with Article 62 of Regulation (EC) No 1907/2006 for authorisation for a use of chromium trioxide. The use for which authorisation was sought is chromium trioxide-based functional chrome plating of components with diverse geometries and dimensions, requiring specialized equipment and process knowledge, for applications in demanding industry sectors such as mechanical engineering, metalworking and processing, aerospace, automotive, and medical technology.
- (3) The European Chemicals Agency sent the opinions<sup>2</sup> on the application adopted by its Committee for Risk Assessment (RAC) and its Committee for Socio-economic Analysis (SEAC) to the Commission pursuant to Article 64(5), second subparagraph, of Regulation (EC) No 1907/2006. On 14 March 2022, the Commission received the opinions.
- (4) In its opinion, RAC concluded that it is not possible to determine a derived no-effect level for the carcinogenic properties of chromium trioxide in accordance with Section 6.4 of Annex I to Regulation (EC) No 1907/2006 and that therefore chromium trioxide is a substance for which it is not possible to determine a threshold for the purposes of Article 60(3), point (a), of that Regulation. As a result, Article 60(2) of Regulation

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<sup>1</sup> OJ L 396, 30.12.2006, p. 1, ELI: <http://data.europa.eu/eli/reg/2006/1907/oj>.

<sup>2</sup> <https://echa.europa.eu/documents/10162/d638cb14-164a-09b5-d513-fa3cabc83556>

(EC) No 1907/2006 does not apply to chromium trioxide and an authorisation may therefore only be granted with respect to that substance under paragraph 4 of that Article.

- (5) In its opinion, RAC concluded that the risk management measures and operational conditions described in the application are appropriate and effective in limiting the risk to human health posed by the use of chromium trioxide described in the application.
- (6) Nevertheless, in order to further minimise the exposure of workers to hexavalent chromium (Cr(VI)), the hazardous component of chromium trioxide, RAC recommended imposing additional conditions for authorisation. Moreover, in order to address some shortcomings in exposure estimates and to provide information on the trends in exposure and emissions during the authorisation period, RAC recommended monitoring arrangements for both occupational exposure and environmental release of Cr(VI).
- (7) Having evaluated RAC's assessment, the Commission agrees with its conclusion and recommendations. Nevertheless, the Commission notes that the estimated excess cancer risk values for workers are higher than as regards other comparable applications for authorisation for the use of Cr(VI) substances. Although the Commission acknowledges that those values are conservative estimates of the most likely excess risk values taken for the purpose of carrying out a risk-benefit analysis, it considers that it is appropriate to set out the measures concerning occupational exposure, recommended by RAC, as a condition for authorisation.
- (8) In its opinion, SEAC concluded that the societal costs of not granting an authorisation are higher than the monetised risk to human health arising from the use of chromium trioxide. The Commission, having evaluated SEAC's assessment, concurs with that conclusion and considers that the applicant has demonstrated that the benefits of the continued use outweigh the risk to human health arising from that use.
- (9) For an alternative to be suitable it needs to be safer, available, and technically and economically feasible. Where suitable alternatives are available in the Union, but not technically or economically feasible for the applicant or its downstream users, the applicant is required by Article 62(4), point (f), of Regulation (EC) No 1907/2006 to submit a substitution plan.
- (10) An alternative that provides the functionality and level of technical performance necessary for the use for which authorisation is sought should be considered to be technically feasible. Certain potential alternatives may provide the functionality, but at some loss of performance or in a manner that involves technical compromises that would impair the functionality. In such cases, unless justified by particular circumstances, the Commission should not consider a potential alternative to be technically feasible for the applicant where the applicant has demonstrated that it or its downstream users are not able to accommodate such losses of performance or technical compromises by applying a reasonable additional effort, taking into account the circumstances of the case.
- (11) In its opinion, SEAC concluded that there were no suitable alternative substances or technologies available for the applicant and in the Union at the time of adoption of the opinion. The Commission, having evaluated SEAC's assessment and the relevant information available, notes that further development and testing of the identified alternatives is necessary to achieve the required functionalities such as hardness, wear resistance and, in particular, the corrosion resistance that would allow the

microcracking of the plated components' surface rather than their macrocracking. The Commission therefore agrees with SEAC's conclusion that there are no suitable alternatives for the applicant and in the Union.

- (12) Therefore, having regard to the conditions laid down in Article 60(4) of Regulation (EC) No 1907/2006, it is appropriate to authorise the use of chromium trioxide described in this Decision, provided that the risk management measures described in the chemical safety report are applied, and that the operational conditions described therein, as well as the conditions set out in this Decision, are fulfilled.
- (13) Nevertheless, taking into account the information submitted in the application as assessed by SEAC, the Commission considers that the description of the use for which the authorisation is sought is very broad. In particular, as the Commission notes that the analysis of alternatives provides a number of more detailed applications derived from the applicants' product portfolio that are covered by the use for which the authorisation is sought, for the sake of legal clarity and to ensure that the use description properly reflects SEAC's assessment, it is appropriate to limit the authorised use accordingly.
- (14) The Commission has based its assessment on all relevant scientific evidence available, as assessed by RAC and SEAC, and, after having carried out a detailed examination, has concluded on the basis of a sufficient amount of material and reliable information. Nevertheless, additional scientific evidence would allow the Commission to perform its assessment on a more robust or broad evidentiary basis in the future. Hence, it is appropriate to require the authorisation holder to generate and include additional exposure and emission information in the review report.
- (15) In its opinion, SEAC recommended that the review period referred to in Article 60(9), point (e), of Regulation (EC) No 1907/2006 be set at 12 years, until 15 February 2033. The Commission agrees with that recommendation, taking into account relevant elements from RAC's and SEAC's assessments and, in particular, RAC's conclusion that the risk management measures and operational conditions are appropriate and effective in limiting the risk to human health, SEAC's conclusion on the monetised risk to human health and on the socio-economic benefits of the continued use of the substance, the applicant's ongoing efforts to substitute chromium trioxide, as well as the time needed for the full implementation of an alternative for the entire product portfolio.
- (1) In its opinion, SEAC considered that, if a review report is submitted, it would be appropriate to require more detailed information on the substitution process to facilitate a future assessment. Therefore, SEAC made certain recommendations for the review report, including on the description of the relevant substitution steps and on justifications for any possible deviation from the substitution target. The Commission agrees with those recommendations.
- (16) The language used to describe the risk management measures and operational conditions in the application for authorisation may be different from the official language of the Member State where the use takes place. Therefore, in order to facilitate supervision and enforcement of compliance with the authorisation, it is appropriate to require the authorisation holder to submit, upon request, a brief summary of those risk management measures and operational conditions to the competent authority of that Member State in an official language of that Member State.

- (17) This Decision does not affect the obligation of the authorisation holder to ensure that the use of a substance does not adversely affect human health or the environment, having regard to the principle set out in Article 1(3) of Regulation (EC) No 1907/2006. Furthermore, this Decision does not affect the obligation of the authorisation holder under Article 60(10) of that Regulation to ensure that the exposure is reduced to as low a level as is technically and practically possible or the obligation of the employer under Article 4(1) and Article 5 of Directive 2004/37/EC of the European Parliament and of the Council<sup>3</sup> to reduce the use of carcinogens, mutagens or reprotoxic substances at the place of work, in particular by replacing those substances, in so far as is technically possible, and to prevent workers' exposure to a risk to their health or safety. This Decision does not affect the application of Union law in the area of health and safety at work, in particular Council Directives 89/391/EEC<sup>4</sup>, 92/85/EEC<sup>5</sup>, 94/33/EC<sup>6</sup>, 98/24/EC<sup>7</sup> and Directive 2004/37/EC, or any national binding occupational limit values which may be stricter than the applicable limit values under Union law.
- (18) This Decision does not affect any obligation to comply with emission limit values or other requirements set in accordance with Directive 2008/50/EC<sup>8</sup> or Directive 2010/75/EU<sup>9</sup> of the European Parliament and of the Council, nor any obligation to comply with emission limit values set to achieve compliance with the environmental quality standards established by Member States in accordance with Directive 2000/60/EC of the European Parliament and of the Council<sup>10</sup> or the environmental quality standards established in Directive 2008/105/EC of the European Parliament and of the Council<sup>11</sup>. Compliance with the provisions of this Decision does not

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<sup>3</sup> Directive 2004/37/EC of the European Parliament and of the Council of 29 April 2004 on the protection of workers from the risks related to exposure to carcinogens, mutagens or reprotoxic substances at work (Sixth individual Directive within the meaning of Article 16(1) of Council Directive 89/391/EEC) (OJ L 158, 30.4.2004, p. 50, ELI: <http://data.europa.eu/eli/dir/2004/37/oj>).

<sup>4</sup> Council Directive 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work (OJ L 183, 29.6.1989, p. 1, ELI: <http://data.europa.eu/eli/dir/1989/391/oj>).

<sup>5</sup> Council Directive 92/85/EEC of 19 October 1992 on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding (tenth individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC) (OJ L 348, 28.11.1992, p. 1, ELI: <http://data.europa.eu/eli/dir/1992/85/oj>).

<sup>6</sup> Council Directive 94/33/EC of 22 June 1994 on the protection of young people at work (OJ L 216, 20.8.1994, p. 12, ELI: <http://data.europa.eu/eli/dir/1994/33/oj>).

<sup>7</sup> Council Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work (fourteenth individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC) (OJ L 131, 5.5.1998, p. 11, ELI: <http://data.europa.eu/eli/dir/1998/24/oj>).

<sup>8</sup> Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe (OJ L 152, 11.6.2008, p. 1, ELI: <http://data.europa.eu/eli/dir/2008/50/oj>).

<sup>9</sup> Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) (OJ L 334, 17.12.2010, p. 17, ELI: <http://data.europa.eu/eli/dir/2010/75/oj>).

<sup>10</sup> Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (OJ L 327, 22.12.2000, p. 1, ELI: <http://data.europa.eu/eli/dir/2000/60/oj>).

<sup>11</sup> Directive 2008/105/EC of the European Parliament and of the Council of 16 December 2008 on environmental quality standards in the field of water policy, amending and subsequently repealing Council Directives 82/176/EEC, 83/513/EEC, 84/156/EEC, 84/491/EEC, 86/280/EEC and amending

necessarily imply compliance with any emission limit values or environmental quality standards under any other provisions of Union law, which may include further or more onerous requirements.

- (19) The measures provided for in this Decision are in accordance with the opinion of the Committee established by Article 133 of Regulation (EC) No 1907/2006,

HAS ADOPTED THIS DECISION:

#### *Article 1*

An authorisation is hereby granted in accordance with Article 60(4) of Regulation (EC) No 1907/2006 to the following person for the following use of chromium trioxide (EC No 215-607-8; CAS No 1333-82-0):

Authorisation number	Authorisation holder	Authorised use
REACH/24/24/0	Betz-Chrom GmbH	Functional chrome plating of components with diverse geometries and dimensions, for the applications listed in the Annex

The authorisation is not granted for the use of chromium trioxide in functional chrome plating of components with diverse geometries and dimensions for applications other than the ones listed in the Annex.

The authorisation is granted subject to the risk management measures and operational conditions described in the chemical safety report<sup>12</sup>, and to the conditions set out in Article 2.

#### *Article 2*

1. The authorisation is subject to the conditions set out in paragraphs 2 to 7.
2. The authorisation holder shall implement in its risk management measures the results of its ongoing and planned research projects to reduce the workers' exposure to hexavalent chromium (Cr(VI)) to as low a level as technically and practically possible and in accordance with the hierarchy of control principles set out in Article 5 of Directive 2004/37/EC.
3. By 12 June 2025 and afterwards whenever new relevant information becomes available, the authorisation holder shall carry out a study to assess the feasibility of the selection and the use of respiratory protective equipment (RPE) for the tasks with potential exposure to Cr(VI) for which wearing RPE was not mandatory at the date of the application, taking into account the comfort of the workers during the use, and shall act in accordance with the outcome of that study.
4. The authorisation holder shall carry out a monitoring programme measuring occupational exposure to Cr(VI). The programme shall include measurements which shall:

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Directive 2000/60/EC of the European Parliament and of the Council (OJ L 348, 24.12.2008, p. 84, ELI: <http://data.europa.eu/eli/dir/2008/105/oj>).

<sup>12</sup> <https://ec.europa.eu/docsroom/documents/49396>

- (a) take place at least annually, or more frequently if a significant increase of chromium trioxide consumption takes place on site, and shall be sufficiently frequent to capture any potential increase in exposure of workers to Cr(VI);
  - (b) be based on relevant standard methodologies or protocols;
  - (c) ensure a sufficiently low limit of quantification;
  - (d) comprise personal inhalation exposure sampling for the workers involved in plating, sampling, concentration adjustment and maintenance activities, and static inhalation exposure sampling;
  - (e) be representative of all the tasks with possible exposure to Cr(VI), including maintenance tasks, of the operational conditions and risk management measures for each of those tasks, and of the total number of workers that are potentially exposed;
  - (f) be recorded so as to include contextual information about the tasks performed during occupational exposure sampling.
5. The authorisation holder shall continue to conduct a biomonitoring programme for a representative number of workers potentially exposed to Cr(VI).
  6. The authorisation holder shall use the information gathered by way of the measurements referred to in paragraphs 4 and 5 to review, at least annually, the appropriateness and effectiveness of the risk management measures and operational conditions in place. While doing so, the authorisation holder shall also review and, if needed, update its assessment of the combined exposure for the different groups of workers. If needed, the authorisation holder shall introduce measures to further reduce to a level as low as technically and practically possible workplace exposure to Cr(VI) in accordance with the hierarchy of control principles set out in Article 5 of Directive 2004/37/EC.
  7. The authorisation holder shall document and maintain the information from the monitoring programmes referred to in paragraphs 4 and 5, including the contextual information associated with each set of measurements, as well as the outcome and conclusions of the reviews and any measure taken in accordance with paragraphs 2, 3 and 6, and shall make that information, including pseudonymised or aggregated biomonitoring results, available, upon request, to the competent authority of the Member State where the authorised use takes place.

#### *Article 3*

1. The review period shall expire on 15 February 2033.
2. The authorisation shall cease to be valid on 15 February 2033 if the authorisation holder has not submitted the review report in accordance with Article 61(1) of Regulation (EC) No 1907/2006 by 15 August 2031.

#### *Article 4*

1. The monitoring arrangements set out in paragraphs 2, 3 and 4 shall apply.
2. The authorisation holder shall carry out a monitoring programme measuring the environmental releases of Cr(VI) to the air and wastewater. The programme shall include measurements which shall:

- (a) take place at least annually, or more frequently if a significant increase of chromium trioxide consumption takes place on site, and shall be sufficiently frequent to capture any potential increase in emission of Cr(VI);
  - (b) be based on relevant standard methodologies or protocols;
  - (c) ensure a sufficiently low limit of quantification;
  - (d) be representative of the operational conditions and risk management measures used at the site where the authorised use takes place;
  - (e) be recorded so as to include contextual information associated with each of the measurements.
3. The authorisation holder shall use the information gathered by way of the measurements referred to in paragraph 2 to review, at least annually, the appropriateness and effectiveness of the risk management measures and operational conditions in place. While doing so, the authorisation holder shall also review and, if needed, update its assessment of the exposure of the general population via the environment. If needed, the authorisation holder shall introduce measures to further reduce to a level as low as technically and practically possible Cr(VI) emissions to the environment.
4. The authorisation holder shall document and maintain the information from the monitoring programme referred to in paragraph 2, including the contextual information associated with each set of measurements, as well as the outcome and conclusions of the reviews and any measure taken in accordance with paragraph 3, and shall make that information available, upon request, to the competent authority of the Member State where the authorised use takes place.

#### *Article 5*

If a review report is submitted, it shall include the following:

- (a) the information referred to in Article 2(7) and Article 4(4);
- (b) if the 70% target of substitution of the authorisation holder's product portfolio is not reached before the submission of the review report, the extent of the deviation from the target, a detailed justification for not having achieved that target and an explanation of the efforts made to accelerate substitution, including via technological progress and collaboration throughout the supply chain;
- (c) a detailed description of the steps undertaken to substitute, at least as of 2025, including the research and development activities on alternatives, in particular concerning applications for the aerospace sector;
- (d) if relevant, the reasons justifying the fact that the authorisation holder has not been able to implement the following alternatives: high velocity oxygen fuel spray, electroless nickel dispersion deposition, and Balitherm<sup>TM</sup> pulsed-plasma diffusion.

#### *Article 6*

Upon request, the authorisation holder shall submit a brief summary of the applicable risk management measures and operational conditions described in the chemical safety report to the competent authority of the Member State where the authorised use takes place. The brief summary shall be drafted in an official language of that Member State.

*Article 7*

This Decision is addressed to: Betz-Chrom GmbH, Am Haag 11, 82166 Gräfelfing, Bavaria, Germany.

Done at Brussels, 12.6.2024

*For the Commission*  
*Thierry BRETON*  
*Member of the Commission*