March 2023

ADCR Dossier Submission Update

The Aerospace and Defence Chromates Reauthorisation (ADCR) Consortium completed the submission of eleven authorisation review reports (ARR) and ten new applications for authorisation (AfA) to ECHA in February 2023. The submissions cover five soluble chromates (chromium trioxide, sodium chromate, sodium dichromate, potassium dichromate and dichromium tris(chromate)) and their use in surface treatment activities in the aerospace and defence (A&D) industry and its supply chains.

Eight ARR and nine AfA have simultaneously been submitted for review to UK authorities in accordance with the requirements of the UK REACH Regulation.

Preparation of the global package of ARRs and AfAs has been supported by over 40 A&D companies, including the largest OEMs in Europe and the UK, as well as 20 importers, formulators and distributors. The review reports are the legally required renewals of applications originally submitted by the three consortia CTACSub, CCST and/or GCCA and currently authorised under EU and UK REACH.

The new applications for authorisation are based on the review reports and have been submitted to address gaps and potential disruption in the ADCR supply chain created by the withdrawal of some original authorisation holders.

Identification of uses

The original CTAC, CCST and GCCA applications covered multiple surface treatments and different individual chromates. The ADCR ARRs and AfAs adopt a narrower definition of "uses" compared to these previous applications. This approach has purposely been adopted by the ADCR to ensure greater clarity on the risks posed by continued use, the availability of alternatives and the socio-economic impacts of non-use.

The substance/use combinations covered across the AfAs and ARRs, in both the EU and UK, are shown in the tables below:

Table 1: EU Submissions					
Uses of Cr(VI) substances for (re)authorisation	**Chromium trioxide**	**Sodium dichromate**	**Potassium dichromate**	**Sodium chromate**	**Dichromium tris(chromate)**
Anodising	X				
Conversion coating	X	X	X		X
Electroplating	X				
Passivation of (non-Al) metallic coatings	X	X	X		
Passivation of stainless steel	X	X			
Anodise sealing	X	X	X	X	
Slurry coatings	X				
Chromate rinsing after phosphating	X				
Inorganic finish stripping	X	X			
Pre-treatments	X	X			
Formulation	X	X	X	X	X

Table 2: UK Submissions					
Uses of Cr(VI) substances for (re)authorisation	**Chromium trioxide**	**Sodium dichromate**	**Potassium dichromate**	**Sodium chromate**	**Dichromium tris(chromate)**
Anodising	X				
Conversion coating	X	X	X		X
Electroplating	X				
Passivation of (non-Al) metallic coatings	X	X	X		
Passivation of stainless steel		X			
Anodise sealing	X	X	X	X	
Slurry coatings	X				
Inorganic finish stripping	X	X			
Pre-treatments	X	X			
Formulation	X	X			

Grouping approach for Cr(VI) compounds

The carcinogenicity, mutagenicity and reproductive toxicities of the five chromates are driven by the Cr(VI) ion released when the substances solubilise and dissociate. Since Cr(VI) is the relevant and common molecular entity generated from all these substances, all exposure assessments are performed for Cr(VI). Also, the exposure-risk relationships and derived no effect levels (DNELs)

proposed by the Committee for Risk Assessment (RAC) express exposure in terms of Cr(VI). A grouping approach has therefore been adopted for the ARRs/AfAs because:

- All substances share this common moiety (Cr(VI)), and are therefore expected to exert effects in an additive manner,
- At many sites various chromates are used in parallel, with the result that exposures are additive,
- For some uses, different chromates can be used interchangeably, as they provide the same performance properties and functionalities.

As multiple chromates may be used at a site for any of the distinct uses tabulated above, each delivering the same functionality within the surface treatment process, the grouping approach applied is more representative and improves the quality and robustness of the Analysis of Alternatives (AoA) and Socio-Economic Analysis (SEA).

The result of this approach is that the dossier for each use covers all the substances indicated as associated with that use in the table above, and any consequent Commission decision will apply equally to all chromates applicable to the use.

Length of review period

For each of the uses detailed above, the ADCR has requested a review period of 12 years, which is reflective of the overall needs of the membership who have supported each use.

April 2023

ADCR Guidance on next steps following submission of authorisation review reports and new applications for authorisation for soluble chromates

Overview

1. Tranche 1 substances: chromium trioxide, sodium dichromate, potassium dichromate, sodium chromate and dichromium trischromate

1.1. Summary of review report approach and interrelationship between dossiers

The original upstream Authorisation applications covering Aerospace and Defence (A&D) uses were developed via the CTAC, CCST and GCCA consortia and covered multiple surface treatments. Separate Authorisation applications were submitted for each individual chromate, including where the uses were identical. Although authorisations were granted based on these applications, the review periods granted were shorter than requested, and not sufficient for the A&D industry to complete alternatives programmes and substitutions in all cases. Broadness of scope for the original applications, leading to uncertainties regarding the lack of alternatives in all cases, was a criticism of the original dossiers, that was raised by the Committee for Socio-Economic Analysis (SEAC) of the European Chemicals Agency.

The necessary renewal applications compiled by the Aerospace and Defence Chromates Reauthorisation Consortium have taken into consideration criticisms and perceived weaknesses in

the original dossiers and sought to improve transparency of uses and representativeness of the supporting data.

Surface treatment activities using chromates that are still required by ADCR members and do not yet have qualified alternatives in place are covered by ten distinct 'uses' (plus formulation of mixtures). One use is covered by each ADCR dossier. Each distinct 'use' describes a specific surface treatment, each with different functional requirements and different substitution profiles. This significantly improves the assessment of available alternatives. Although these uses manifest different performance requirements, when combined they form part of an overall treatment system. There are therefore interrelationships between the uses described in the different dossiers which ultimately impact the individual substitution plans of members, and the resulting requested review periods.

Whilst each ADCR surface treatment dossier reflects a distinct use, the chromates associated with each use are grouped. One ADCR dossier may cover multiple chromates where they are used in the same manner, for the same use and therefore have the same alternatives challenges and socioeconomic impact. The grouping approach is appropriate as the carcinogenic, mutagenic and reproductive toxicities of chromates are driven by the Cr(VI) ion released when the substances solubilise and dissociate. Grouping of the chromates in this manner is appropriate for all elements of the dossiers, as detailed below:

- From the Chemical Safety Report (CSR) perspective, all substances are expected to exert effects in an additive manner, and they are often used for the same process and in parallel at many sites.
- The key determinant of functionality is the presence of Cr(VI), as a result the chromates deliver the same key functionalities for each distinct use and therefore the same families of potential alternatives are relevant to substitution.
- With respect to the Socio-Economic Analysis (SEA), a grouping approach ensures that there is no double-counting of economic impacts and social costs of unemployment where different chromates are used within the same facility.

Both ECHA and the UK HSE have expressed their support for the logical approach taken to the preparation of the ADCR authorisation review reports and the grouping of the soluble chromates.

Although formally the submitted authorisation review reports are upstream applications submitted by manufacturers, importers or formulators of chromate-containing chemical products, the applications are based on sector-specific data and detailed information obtained from actors throughout the supply chain. As required by the European Commission decisions on the original Authorisations, monitoring and measurement activities carried out by downstream users have been used for the preparation of the ADCR authorisation review reports.

1.2. New Applications for Authorisation

In addition to the authorisation review reports, the ADCR consortium have also submitted a number of new applications for authorisation, where the applicants were not previously Authorisation holders. The applications are identical in scope of use to the review reports developed by the ADCR and have been submitted to address gaps and potential disruption in the ADCR supply chain created by loss of some original authorisation holders, who are not supporting the ADCR renewal dossiers.

1.3. Expiry of existing (parent) Authorisations in September 2024

The existing authorisations for four of the soluble chromates (chromium trioxide, sodium dichromate, potassium dichromate, and sodium chromate) are due to expire on 21 September 2024. As the ADCR review reports were submitted more than 18 months before this date, if no decision (By the European Commission or the Secretary of State in UK) has been made on the ADCR review reports by this date, use may continue beyond September 2024 under the existing authorisations. Following publication of a decision on the review reports submitted, the original decision will then be annulled and, assuming a positive decision, uninterrupted use of the chromates may continue under the new decisions. Whilst the above is true for the review reports submitted by members of the ADCR, the new applications for authorisation do not benefit from the same transitional arrangement. These new applications for authorisation (which allow upstream applicants to bridge gaps where existing Authorisation holders are not supporting the ADCR review reports) must be decided upon before the existing Authorisation decisions expire in order to prevent supply chain disruption.

It is therefore of vital importance to the whole aerospace and defence (A&D) industry, that a decision on these applications is published prior to 21 September 2024. This importance has been expressed to the relevant authorities by the ADCR consortium.

1.4. Details of EU submissions

For clarification, the existing authorisation numbers against which the ADCR has submitted review reports are listed below. **If you use soluble chromates in the surface treatment activities covered by the ADCR applications and the product does not carry one of these authorisation numbers, we strongly recommend that you contact your existing supplier to ensure the continuity of supply beyond September 2024.**

Table 1: EU authorisation review reports		
Use	**Authorisation numbers**	**Authorisation holders submitting ADCR review reports (original consortium)**
Anodising using chromium trioxide in aerospace and defence industry and its supply chains	REACH/20/18/14, REACH/20/18/21	Chemservice (CTAC)
	REACH/20/18/16, REACH/20/18/23	Boeing (CTAC)
	REACH/20/18/18, REACH/20/18/25	CROMITAL (CTAC)
Anodise sealing using chromium trioxide, potassium dichromate, sodium chromate and/or sodium dichromate in aerospace and defence industry and its supply chains	Chromium trioxide	
	REACH/20/18/14, REACH/20/18/21	Chemservice (CTAC)
	REACH/20/18/16, REACH/20/18/23	Boeing (CTAC)
	REACH/20/18/18, REACH/20/18/25	CROMITAL (CTAC)
	Potassium dichromate	
	REACH/20/3/1	Brenntag (CCST)
	REACH/19/31/0	Haas (GCCA)
	Sodium chromate	

	REACH/19/32/2	Boeing (GCCA)
	REACH/19/32/3	Haas (GCCA)
	Sodium dichromate	
	REACH/20/5/3	Brenntag (CCST)
	REACH/20/5/5	AD International (CCST)
	REACH/20/14/0	Haas (GCCA)
Chemical conversion coating using chromium trioxide, sodium dichromate, potassium dichromate and/or dichromium tris(chromate) in aerospace and defence industry and its supply chains	Chromium trioxide	
	REACH/19/29/0	Haas (GCCA)
	REACH/20/18/14, REACH/20/18/21	Chemservice (CTAC)
	REACH/20/18/16, REACH/20/18/23	Boeing (CTAC)
	REACH/20/18/18, REACH/20/18/25	CROMITAL (CTAC)
	Sodium dichromate	
	REACH/20/5/3	Brenntag (CCST)
	REACH/20/5/5	AD International (CCST)
	Potassium dichromate	
	REACH/20/3/1	Brenntag (CCST)
	Dichromium tris(chromate)	
	REACH/20/1/3,	Henkel (CCST)
	REACH/20/10/0	Haas (GCCA)
Chromate rinsing after phosphating using chromium trioxide in aerospace and defence industry and its supply chains	REACH/20/18/14, REACH/20/18/21	Chemservice (CTAC)
	REACH/20/18/16, REACH/20/18/23	Boeing (CTAC)
	REACH/20/18/18, REACH/20/18/25	CROMITAL (CTAC)
Electroplating using chromium trioxide in aerospace and defence industry and its supply chains	REACH/20/18/7	Chemservice (CTAC)
	REACH/20/18/9	Boeing (CTAC)
	REACH/20/18/11	CROMITAL (CTAC)
Formulation of mixtures with soluble Cr(VI) compounds for use in aerospace and defence industry and its supply chains for surface treatments	Chromium trioxide	
	REACH/20/18/0	Chemservice (CTAC)
	REACH/20/18/2	Boeing (CTAC)
	REACH/20/18/4	CROMITAL (CTAC)
	Sodium dichromate	
	REACH/20/5/0	Brenntag (CCST)
	REACH/20/5/2	AD International (CCST)
	Potassium dichromate	
	REACH/20/3/0	Brenntag (CCST)
	Sodium chromate	
	REACH/19/32/0	Boeing (GCCA)
	REACH/19/32/1	Haas (GCCA)
Inorganic finish stripping using chromium trioxide or sodium dichromate in aerospace and defence industry and its supply chains	Chromium trioxide	
	REACH/20/18/14, REACH/20/18/21	Chemservice (CTAC)
	REACH/20/18/16, REACH/20/18/23	Boeing (CTAC)
	REACH/20/18/18, REACH/20/18/25	CROMITAL (CTAC)
	Sodium dichromate	

	REACH/20/5/3	Brenntag (CCST)
	REACH/20/5/5	AD International (CCST)
Passivation of (non-al) metallic coatings using chromium trioxide or sodium dichromate or potassium dichromate in aerospace and defence industry and its supply chains	Chromium trioxide	
	REACH/20/18/14, REACH/20/18/21	Chemservice (CTAC)
	REACH/20/18/16, REACH/20/18/23	Boeing (CTAC)
	REACH/20/18/18, REACH/20/18/25	CROMITAL (CTAC)
	Sodium dichromate	
	REACH/20/5/3	Brenntag (CCST)
	REACH/20/5/5	AD International (CCST)
	Potassium dichromate	
	REACH/20/3/1	Brenntag (CCST)
Passivation of stainless steel using chromium trioxide or sodium dichromate in aerospace and defence industry and its supply chains	Chromium trioxide	
	REACH/20/18/14	Chemservice (CTAC)
	REACH/20/18/16	Boeing (CTAC)
	REACH/20/18/18	CROMITAL (CTAC)
	Sodium dichromate	
	REACH/20/5/3	Brenntag (CCST)
	REACH/20/5/5	AD International (CCST)
Pre-treatments: deoxidising, pickling, etching and/or desmutting using chromium trioxide or sodium dichromate in aerospace and defence industry and its supply chains	Chromium trioxide	
	REACH/20/18/7, REACH/20/18/14, REACH/20/18/21	Chemservice (CTAC)
	REACH/20/18/9, REACH/20/18/16, REACH/20/18/23	Boeing (CTAC)
	REACH/20/18/11, REACH/20/18/18, REACH/20/18/25	CROMITAL (CTAC)
	Sodium dichromate	
	REACH/20/5/3	Brenntag (CCST)
	REACH/20/5/5	AD International (CCST)
Slurry coating using chromium trioxide in aerospace and defence industry and its supply chains	REACH/19/29/0	Haas (GCCA)
	REACH/20/18/14, REACH/20/18/21	Chemservice (CTAC)
	REACH/20/18/16, REACH/20/18/23	Boeing (CTAC)
	REACH/20/18/18, REACH/20/18/25	CROMITAL (CTAC)

To avoid disruption and potential gaps in the supply chain for chromates, the following new Authorisation applications have also been submitted in the EU:

Table 2: EU New Applications for Authorisation	
Use	**ADCR Authorisation applicants**
Anodising using chromium trioxide in aerospace and defence industry and its supply chains	Haas Group International SP. Z.O.O. Henkel Global Supply Chain B.V.

Anodise sealing using chromium trioxide in aerospace and defence industry and its supply chains	Haas Group International SP. Z.O.O. Henkel Global Supply Chain B.V.	
Chemical conversion coating using chromium trioxide, sodium dichromate, and/or potassium dichromate in aerospace and defence industry and its supply chains	Chromium trioxide	Henkel Global Supply Chain B.V.
	Sodium dichromate	Haas Group International SP. Z.O.O.
	Potassium dichromate	Haas Group International SP. Z.O.O.
Chromate rinsing after phosphating using chromium trioxide in aerospace and defence industry and its supply chains	Haas Group International SP. Z.O.O.	
Electroplating using chromium trioxide in aerospace and defence industry and its supply chains	Haas Group International SP. Z.O.O. Henkel Global Supply Chain B.V.	
Formulation of mixtures with soluble Cr(VI) compounds for use in aerospace and defence industry and its supply chains for surface treatments	Chromium trioxide	Haas Group International SP. Z.O.O. Henkel Global Supply Chain B.V.
Inorganic finish stripping using chromium trioxide in aerospace and defence industry and its supply chains	Haas Group International SP. Z.O.O. Henkel Global Supply Chain B.V.	
Passivation of (non-Al) metallic coatings using chromium trioxide or sodium dichromate or potassium dichromate in aerospace and defence industry and its supply chains	Chromium trioxide	Haas Group International SP. Z.O.O. Henkel Global Supply Chain B.V.
	Sodium dichromate	Haas Group International SP. Z.O.O.
	Potassium dichromate	Haas Group International SP. Z.O.O.
Passivation of stainless steel using chromium trioxide or sodium dichromate in aerospace and defence industry and its supply chains	Chromium trioxide	Henkel Global Supply Chain B.V.
	Sodium dichromate	Haas Group International SP. Z.O.O.
Pre-treatments: deoxidising, pickling, etching and/or desmutting using chromium trioxide in aerospace and defence industry and its supply chains	Haas Group International SP. Z.O.O. Henkel Global Supply Chain B.V.	

1.5. Details of UK submissions

In the UK, review reports have also been submitted for UK-held Authorisations, where these had been 'grandfathered' under UK REACH.

In the UK, in addition to the loss of some original authorisation holders with grandfathered authorisations who are not supporting the ADCR renewal dossiers, there are also a significant number of cases where GB-based downstream users are currently reliant on an EU authorisation holder and are therefore ineligible to submit an authorisation review report. For this reason there

are more instances where the A&D sector is reliant solely on new applications for Authorisation, which do not benefit from transitional arrangements and therefore, to avoid disruption to the A&D industry in the UK, need to have decisions before the current (EU and UK) authorisations expire.

The following review reports and new applications have been submitted:

Table 3: UK authorisation review reports		
Use	**Authorisation numbers**	**Authorisation holders submitting ADCR review reports (original consortium)**
Anodise sealing using potassium dichromate, sodium chromate and/or sodium dichromate in aerospace and defence industry and its supply chains	Potassium dichromate	
	18UKREACH/19/31/0	Wesco (GCCA)
	22UKREACH/20/3/1	Brenntag (CCST)
	Sodium chromate	
	20UKREACH/19/32/3	Wesco (GCCA)
	Sodium dichromate	
	24UKREACH/20/5/3	Brenntag (CCST)
	35UKREACH/20/14/0	Wesco (GCCA)
Chemical conversion coating using chromium trioxide, sodium dichromate, potassium dichromate and/or dichromium tris(chromate) in aerospace and defence industry and its supply chains	Chromium trioxide	
	17UKREACH/19/29/0	Wesco (GCCA)
	Sodium dichromate	
	24UKREACH/20/5/3	Brenntag (CCST)
	Potassium dichromate	
	22UKREACH/20/3/1	Brenntag (CCST)
	Dichromium tris(chromate)	
	32UKREACH/20/10/0	Wesco (GCCA)
Formulation of mixtures with soluble Cr(VI) compounds for use in aerospace and defence industry and its supply chains for surface treatments	Sodium dichromate	
	23UKREACH/20/5/0	Brenntag (CCST)
Inorganic finish stripping using sodium dichromate in aerospace and defence industry and its supply chains	24UKREACH/20/5/3	Brenntag (CCST)
Passivation of (non-al) metallic coatings using sodium dichromate or potassium dichromate in aerospace and defence industry and its supply chains	Sodium dichromate	
	24UKREACH/20/5/3	Brenntag (CCST)
	Potassium dichromate	
	22UKREACH/20/3/1	Brenntag (CCST)
Passivation of stainless steel using sodium dichromate in aerospace and defence industry and its supply chains	24UKREACH/20/5/3	Brenntag (CCST)
Pre-treatments: deoxidising, pickling, etching and/or desmutting using sodium dichromate in aerospace and defence industry and its supply chains	24UKREACH/20/5/3	Brenntag (CCST)
Slurry coating using chromium trioxide in aerospace and defence industry and its supply chains	17UKREACH/19/29/0	Wesco (GCCA)

Table 4: UK New Applications for Authorisation	
Use	**Authorisation applicants**
Anodising using chromium trioxide in aerospace and defence industry and its supply chains	Boeing Distribution (UK) Inc. Henkel Ltd MacDermid Performance Solutions UK Ltd Wesco Aircraft EMEA Ltd

Anodise sealing using chromium trioxide and/or sodium chromate in aerospace and defence industry and its supply chains	Chromium trioxide	Boeing Distribution (UK) Inc. Henkel Ltd MacDermid Performance Solutions UK Ltd Wesco Aircraft EMEA Ltd
	Sodium chromate	Boeing Distribution (UK) Inc.
Chemical conversion coating using chromium trioxide, sodium dichromate, potassium dichromate and/or dichromium tris(chromate) in aerospace and defence industry and its supply chains	Chromium trioxide	Boeing Distribution (UK) Inc. Henkel Ltd Indestructible Paint Limited MacDermid Performance Solutions UK Ltd
	Sodium dichromate	Wesco Aircraft EMEA Ltd
	Potassium dichromate	Wesco Aircraft EMEA Ltd
	Dichromium tris(chromate)	Henkel Ltd
Electroplating using chromium trioxide in aerospace and defence industry and its supply chains	Boeing Distribution (UK) Inc. Henkel Ltd MacDermid Performance Solutions UK Ltd Wesco Aircraft EMEA Ltd	
Formulation of mixtures with soluble Cr(VI) compounds for use in aerospace and defence industry and its supply chains for surface treatments	Chromium trioxide	Boeing Distribution (UK) Inc. Indestructible Paint Limited MacDermid Performance Solutions UK Ltd Wesco Aircraft EMEA Ltd
	Sodium dichromate	Wesco Aircraft EMEA Ltd
Inorganic finish stripping using chromium trioxide in aerospace and defence industry and its supply chains	Boeing Distribution (UK) Inc. MacDermid Performance Solutions UK Ltd	
Passivation of (non-Al) metallic coatings using chromium trioxide or sodium dichromate or potassium dichromate in aerospace and defence industry and its supply chains	Chromium trioxide	Boeing Distribution (UK) Inc. Henkel Ltd MacDermid Performance Solutions UK Ltd Wesco Aircraft EMEA Ltd
	Sodium dichromate	Wesco Aircraft EMEA Ltd
	Potassium dichromate	Wesco Aircraft EMEA Ltd
Pre-treatments: deoxidising, pickling, etching and/or desmutting using chromium trioxide in aerospace and defence industry and its supply chains	Boeing Distribution (UK) Inc. Henkel Ltd MacDermid Performance Solutions UK Ltd Wesco Aircraft EMEA Ltd	
Slurry coating using chromium trioxide in aerospace and defence industry and its supply chains	Boeing Distribution (UK) Inc. Indestructible Paint Limited	

1.6. Review periods requested

Owing to the wide scope of the ADCR consortium, representative of the main global actors and their supply chain, who require continued use of chromates in the EU and UK, until alternatives are fully

qualified for use in their products, components, processes (including maintenance, overhaul and repair) and supply chain - the review periods sought for all dossiers is 12 years.

Justification for the 12-year review period is specific to each ADCR dossier and the member companies who have supported that dossier with information on the availability of alternatives and the implementation of their individual substitution plan(s). In many cases ADCR members have multiple substitution plans (representative of differences in alternatives requirements or suitability depending on where a current chromate surface treatment is used) for replacement of just one chromate 'use'.

Whilst the overall review periods indicated as necessary for each dossier are 12 years, if substitution plans progress as anticipated, alternatives will be progressively introduced across the entire sector, over the course of the 12 years.

1.7. Relationship to CTACSub and implications of the judgment of the Court of Justice of the EU in case C144/21

As detailed in table 1, above, some of the parent Authorisations for which ADCR submitted review reports in the EU belong to the original CTAC applications for authorisation, covering the use of chromium trioxide.

In the EU, the Commission Decision on the CTAC applications was the subject of a legal challenge by the European Parliament, under case number C144/21 of the Court of Justice of the European Union. The judgment in this case was published on 20 April 2023, with the outcome being an annulment of the original decision, and a requirement for the Commission to publish a new decision on the original CTAC application for authorisation. The judgment also states that the effects of the initial decision will be maintained for a period not exceeding one year from the date of the decision. This judgment therefore has no immediate impact on the continued use of chromium trioxide under existing authorisations held by the applicants of the CTAC dossiers. Any consequence of the annulment of the Commission Decision on the original CTAC application, where the ADCR have submitted associated review reports, should not affect the ability of the A&D sector to continue to operate. The Commission have confirmed that the status of authorisation review reports already submitted (which encompass those submitted by members of the ADCR) will be addressed in any new decision published by the Commission. At this time it is not possible to assess the impact this will have on the ADCR review reports, and the existing transitional benefits currently associated with these submissions.

This case relates only to the original decision on CTAC applications as it applies in the EU, and the annulment of the Decision will have no impact on companies in Great Britain using chromium trioxide under the authorisations granted by this Decision.

1.8. What happens next?

After the relevant authorities (ECHA in the EU, and the HSE in the UK) begin processing the authorisation review reports and new applications for authorisation, they will publish details of the use applied for and the documentation supporting the application. There will then follow an eight-week consultation period during which interested parties are invited to submit information on possible alternative substances or technologies for the applied for use.

Within eight months ECHA's Committees for Risk Assessment (RAC) and Socio-economic Analysis (SEAC) in the EU, and the Health and Safety Executive (HSE) in the UK, will publish a draft opinion on the applications. After giving the ADCR an opportunity to comment on the draft opinion, a final opinion will be submitted to the European Commission and to the Department for the Environment, Food and Rural Affairs (in the UK), who will publish their decisions.

The UK HSE have already begun processing some of the dossiers, and public consultations opened on 24 March 2023.

In the EU, due to the volume of applications which have been received in 2023, ECHA have informed the ADCR applicants that they intend to delay processing the applications and review reports until either May or August 2023, therefore it is not anticipated that public consultations will open until Summer 2023 at the earliest.

ADCR would encourage affected stakeholders reliant on the success of these applications to respond to the public consultations in support of these necessary dossiers. Further inputs are included in section 3.

2. Tranche 2 substances: Strontium chromate, potassium hydroxyoctaoxodizincatedichromate, and pentazinc chromate octahydroxide

Now that submissions have been completed for the five soluble chromates (Tranche 1 ADCR dossiers), ADCR members are gathering the information required to prepare authorisation review reports for the formulation and use of primer products containing the three chromates strontium chromate, potassium hydroxyoctaoxodizincatedichromate and pentazinc chromate octahydroxide. The existing authorisations for these substances, previously submitted by CCST and GCCA, do not expire until January 2026, therefore it is the intention of the consortium to submit relevant review reports in May 2024.

Whilst these are separate applications, the importance of these primer products to the overall surface treatment system is not underestimated, and the interrelationship between the ADCR Tranche 1 applications already submitted and the use of chromated primer products is well known. The importance of this interrelationship and its impact on the substitution plans of individual ADCR members will also be addressed in the Tranche 2 review reports.

3. Supporting the ADCR Authorisation applications.

- The Aerospace & Defence sector is one of the 14 sectors highlighted by the EU's New Industrial Strategy[1] as being important to innovation, competition and a strong and well-functioning single market. An inability to continue the use of chromates in the surface treatment for the applied for uses over the duration of the review period requested would lead to a significant loss of jobs and investment within this key sector as operations are relocated to outside of the EEA/UK.

- The Aerospace & Defence industry has been working towards substitution of Cr(VI) for corrosion protection for the past 25-30 years, however the substitution process within the sector is highly complex and subject to strict regulatory (airworthiness) requirements which

[1] European industrial strategy (europa.eu)

must be met to ensure performance and safety across components, final products and processes (including maintenance, repair and overhaul).

- This highly complex, multi-phase substitution process involves qualification, validation, certification and industrial implementation in the supply chain and can last for many years following the identification of a potential candidate Cr(VI)-free formulation.

- The ADCR was specifically formed by the A&D sector to respond to this complexity and to benefit the entire supply chain, therefore minimising the risk of supply chain disruption, by collectively examining the progress of substitution plans for each surface treatment process; the status of approvals/certifications by the "design owners" (whether civilian, military, or space related) for the proposed alternatives; the industrial deployment of validated substitution plans; and the need to gain renewed authorisation, in the event of unavailable alternatives or incomplete deployment.

- Cr(VI)-free alternatives cannot be introduced unless they have been rigorously tested and shown not to result in a regression in performance of key functions. This makes identification of technically feasible alternatives which can be applied across the whole range of components and final products produced for use in the A&D sector, as well as in maintenance repair and overhaul (MRO), a complex and difficult challenge.

- The identification or implementation of a technically feasible alternative has not been universally possible for various uses across the sector due to a number of technical challenges.

- Where technically feasible alternatives have been identified and industrial implementation throughout the supply chain has been completed, the chromates have already been substituted. The use of chromates is now strictly limited to those situations where it plays a critical, and currently irreplaceable, role in ensuring the protection of substrates to meet product performance, reliability, and safety standards. These uses take place in compliance with the strict conditions laid down in the existing authorisation decisions.

- A summary of the substitution plans for each use has been developed based on a granular analysis of the progression towards achieving substitution made by each member company supporting the review report for that use. Those members supporting the use are doing so either because they have not yet been able to identify technically feasible alternatives, and/or because they are constrained by the certification process (both civilian and military) and/or because they have to manage industrial implementation throughout the supply chain (including MROs).

- Final products in the A&D sector often have service lives of over 50 years (especially military equipment). MROs and MoDs require the ability to continue servicing older, out-of-production but still in-service aircraft and equipment. Thus, although new aircraft and military designs draw on new materials, there will remain a stock of in-service aircraft and equipment that require the use of chromates as part of repair, maintenance and overhaul

activities. The A&D sector relies on scheduled maintenance to ensure the continued reliability and long service life of these products[2].

- Authorisation of a further 12-years beyond the end of the existing review period is critical to the continued operation of aerospace and defence manufacturing, maintenance, repair and overhaul activities in the EEA and UK. The continued use of chromates helps to ensure the operational capabilities of the military and the ability to comply with international obligations as partner nations at the EU level and in a wider field, e.g., with NATO.

- To be able to continue operating in the EEA/UK, the sector needs certainty regarding the continued use of chromates until suitable alternatives can be identified and implemented.

- Whilst the overall review periods indicated as necessary for each dossier are 12 years, if substitution plans progress as anticipated, alternatives will be progressively introduced across the entire sector, over the course of the 12 years.

[2] As this process is not within scope of Commission Implementing Regulation (EU) 2021/876, the reduced requirements of an application allowed for by this Regulation cannot be applied to the MRO processes described within the ADCR review reports.