

## **20 DECEMBER 2011**

ANNEX III TO RESPONSES TO COMMENTS DOCUMENT (RCOM) ON ECHA'S DRAFT 3<sup>RD</sup> RECOMMENDATION FOR THE GROUP OF RECOMMENDED CHROMIUM (VI) COMPOUNDS - COMMENTS ON SODIUM DICHROMATE (EC NUMBER: 234-190-3)

THIS DOCUMENT PROVIDES THE COMMENTS RECEIVED ON SODIUM DICHROMATE DURING THE PUBLIC CONSULTATION ON THE 3<sup>RD</sup> DRAFT RECOMMENDATION FOR INCLUSION OF SUBSTANCES IN ANNEX XIV OF REACH WHICH TOOK PLACE BETWEEN 15 JUNE AND 14 SEPTEMBER 2011. ECHA'S RESPONSES TO THESE COMMENTS ARE PROVIDED IN THE ABOVE MENTIONED RCOM DOCUMENT.

N.B.: All public attachments are provided in a separate zip-file available on ECHA's website (attachments claimed confidential are not provided with the public version of this compilation of comments received).

## I - GENERAL COMMENTS ON THE RECOMMENDATION TO INCLUDE THE SUBSTANCE IN ANNEX XIV, INCLUDING THE PRIORITISATION OF THE SUBSTANCE:

#	Date (Attachment provided)	Submitted by (name, Organisation/MSCA)	Comment
1847	2011/09/15 00:06 File attached	Aerospace Industries Association of America  Industry or	See Attached document
		trade association United States	



1837	2011/09/14 22:42 File attached	ArcelorMittal  Company Luxembourg	cfr. ArcelorMittal answer to the consultation on Chromium Trioxide (EC Number 215-607-8) and letter attached.
1824	2011/09/14 21:29 File attached Confidential	Galion  Company France	The use of chromium trioxide in surface treatment doesn't meet the criteria of priorisation; please see the enclosed letter.
1822	2011/09/14 21:27 File attached Confidential	Galion  Company France	The use of chromium trioxide in surface treatment doesn't meet the criteria of priorisation; please see the enclosed letter.



1795	2011/09/14 20:03	European Federation of Pharmaceutical industries & Associations  International Organisation Belgium	EFPIA has noted with interest the call by ECHA of June 2011 for comments on proposals to include a number of new substances, including sodium dichromate, in Annex XIV of the REACH Regulation as substances of very high concern (SVHCs) which would require authorisation for their use.  The details relating to sodium dichromate and its uses in preparing diagnostic tests are set out below and EFPIA asks that, if it is to be included in Annex XIV, it be exempted from the necessity for authorisation for use in research, development, manufacture or analytical control of diagnostic tests and their ingredients
1773	2011/09/14 19:21	Association of the British Pharmaceutical Industry  Industry or trade association United Kingdom	



1772	2011/09/14 19:19	ADR	The use of sodium dichromate in surface treatment doesn't meet the criteria of priorisation; please see the enclosed letter
	File attached	Company France	
1752	2011/09/14 18:52 File attached	Company France	The use sodium dichromate in surface treatment doesn't meet the criteria of priorisation; please see the enclosed letter
1741	2011/09/14 18:33 File attached	Company France	The use of Sodium dichromate in surface treatment doesn't meet the criteria of priorisation; please see the enclosed letter



1727	2011/09/14 18:13	Indestructible Paint Ltd.  Company United Kingdom	Chromium (VI) compounds are clearly classified in regulations as carcinogenic and thus meet the criteria for inclusion in the candidate list and Annex XIV. However, with proper control and adherence to good workplace safety practices, risks can be adequately controlled. In specific circumstances, the socio-economic benefits of these compounds are extensive and a case can be clearly made for their continued use.  The hazards associated with the hexavalent form of soluble chromium salts, such as sodium dichromate (VI), are well known to the global aerospace and defence industry. It is agreed that the uses of this substance need to be well controlled to reduce and control the risks.  Improvements in guidance and practices in recent years have potentially significantly improved the control of these risks. Studies are currently ongoing which will indicate whether risks are being effectively controlled using current best practice (for example see http://www.sro.hse.gov.uk – JN4077 – Biological Monitoring in Surface Engineering – Project Number: OH36). These may also indicate whether any remaining risk is due to a lack of application of best practice or whether the best practice guidance is inadequate.  The aerospace industry makes use of sodium dichromate as a key part of the corrosion protection scheme applied to airframe components. It is vital that aircraft, which can have a life cycle in excess of 40 years have excellent corrosion protection and this substance has proved to be one of the most effective. Alternatives have been tested but found to have inferior properties. The aerospace industry is heavily regulated by EASA and FAA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. For these reasons, the aerospace industry requests that sodium dichromate be exempt from Annex XIV of REACH for aerospace applications.
1717	2011/09/14 17:59	Company Germany	Chromium trioxide General situation Among other products, our group manufactures highly specialised opto-mechanical products that have a finished metallic surface for specialised and high precision applications. This finishing proc-ess also involves electrolytic chrome plating of brass and steel, and yellow chromating of aluminium in which chromium trioxide is used. Areas of application include the aerospace industry, the military sector, R&D and outdoor measurement instruments.  Chemical surface treatment, gloss and black chrome plating In the electrolytic chrome plating process, a chromium(VI) containing preparation is used, from



which the chromium is isolated in elemental, metallic and hence safe form onto the metal surface. As a result, the product entering the supply chain in this state no longer contains chromium(VI) compounds! During the production process itself, our employees are not exposed because there is an industrial ventilation system over the electrolyte baths, and they wear protective equipment such as special respirator filters, protective gloves and protective clothing. In addition, employees are regularly instructed in the handling of hazardous materials. Before disposing of rinse water con-taining chromium(VI), we reduce it to the harmless chromium(III) oxide and transfer it to a company certified for disposal according to KrW/AbfG [Recycling and Waste Management Act].

The alternative decorative gloss chrome plating based on chromium(III) components is impossible for economic reasons. As the process is fundamentally more involved and because it is more suscep-tible to contamination, a complete and cost-intensive retrofit to our present facility would be re-quired for it to handle chromium(III) specifically. Moving to a vacuum-(physical vapour deposition), nickel- or zinc-based process would also be economically unfeasible, especially as zinc- or nickel-plated products do not meet the technical needs of the products. According to our suppliers, no alternatives to 'black chrome plating' exist in our line of production. A ban on the use of chromium trioxide would result in the closure of both electroplating branches and the subsequent loss of cus-tomer loyalty.

Chemical surface treatment, yellow chromating process of aluminum: Areas of application:

- Surface corrosion protection
- Good primer for varnishes and adhesives
- Light and temperature resistant
- Electronic components (the coating conducts electricity)
- Precision components (0.005mm thickness)

## Safety conditions:

- Employees are protected throughout the entire process by wearing personal protective equipment including safety footwear, protective eyewear, gloves and special clothing.
- In addition, employees receive annual training in the safe handling of hazardous materials.

Description of the facilities:

- Closed circulatory system with a regeneration system and enclosed conditioning of rinse wa-ter.
- Regeneration of rinse water using cation and anion exchange cartridges



			There is an industrial ventilation system including a supplemental demister over all baths Disposal: Conditioning of the ion exchange cartridges by a certified company according to KrW/AbfG Alternatives: There is no alternative to chromating process of metal surfaces that has comparable techni-cal and qualitative properties and that meets the requirements of the above-named areas of application (e.g. bonding, corrosion resistance, resistance to physical influences, etc.). Conclusion: A ban on the use of chromium trioxide would mean our company would be compelled to close this area of surface plating. Among others, the main consequences would be as follows: Loss of workspace Substantial economic loss Loss of long-standing customer loyalty
1695	2011/09/14 17:30 File attached Confidential	Company Germany	We support the position of the Aerospace and Defence Industries of Europe (ASD)



1683	2011/09/14 17:16 File attached	sabena technics Company France	The use of potassium dichromate in surface treatment doesn't meet the criteria of priorisation: - environmental exposition is controled by regulations (code de l'environnement - arrêté 30/06/2006) - no consumers exposed with potassium dichromate - very low exposition for automatic process Please see the enclosed letter
1660	2011/09/14 16:33 File attached	Company France	The use of chromium trioxide in surface treatment doesn't meet the criteria of priorisation; please see the enclosed letter
1646	2011/09/14 16:10 File attached Confidential	Company United Kingdom	We support the position of the Aerospace and Defence Industries of Europe (ASD)



1614	2011/09/14 15:32	Health and Environment Alliance International NGO Belgium	We support the inclusion of Sodium Dichromate into Annex XIV
1601	2011/09/14 15:04 File attached Confidential	Company United Kingdom	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted for safety and airworthiness. Without this additional time, it is anticipated that there will be extensive applications for



			authorisation to continue to use sodium dichromate if it appears on Annex XIV. The level of effort that will be expended in making these applications could be better employed in sorting out the qualification and introduction of safe and effective alternatives. An additional reason for deferring the prioritisation of sodium dichromate is the need to allow sufficient time for the formation of suitable aerospace and defence consortia, involving participants from all levels of the supply chain. This is essential if comprehensive applications for Authorization are to be made.
1575	2011/09/14 14:41 File attached	A.M.P.E.R.E. INDUSTRIE	The use of sodium dichromate in surface treatment doesn't meet the criteria of priorisation.
		Company France	
1572	2011/09/14 14:38	The Boeing Company	The Boeing Company appreciates the opportunity to provide comments to ECHA's public consultation. Our company is one of the world's leading aerospace companies and the largest manufacturer of commercial jetliners and military aircraft combined. With a 43 percent share of the in-service commercial fleet in Europe, and many partners and suppliers in the region we are integral part of the European aerospace community. We have customers and suppliers in more
		Company United States	than 90 countries around the world and are one of the largest U.S. exporters in terms of sales. Our extensive, international supply chain includes approximately 50 European sub-tier chemical processors located in Belgium, Czech Republic, France, Italy, Germany, Ireland, Netherlands, Poland, Portugal, Romania, Spain, Sweden, and the UK. Aircraft manufactures, operators and maintenance service providers are concerned, because over 250 subcontractors, 50 airlines and 150 repair facilities throughout Europe will be negatively impacted by the proposed regulatory action.
			With regard to the chromate substances proposed to be added to Annex XIV, note that some critical aerospace applications would be difficult to phase out in a short time period. These materials are unique in that they comprise part of a certificate that establishes compliance with U.S. Federal Aviation Administration (FAA) and the European Aviation Safety Agency (EASA) stringent safety requirements. They are used as part of the corrosion control system for safety



critical applications. Chromates provide corrosion inhibition as well as unique wear properties when used as a plating solution on major structural elements located throughout the vehicle's airframe. Aluminum alloys used in aerospace construction are susceptible to corrosion due to significant exposure to condensation and moisture (with or without salt content) on metal surfaces – Replacement of chromate containing materials with less than equivalent substitutes could potentially increase instances of structural failure due to stress corrosion cracking, corrosion fatigue, exfoliation, and other forms of corrosion. Pitting corrosion can also lead to fatigue failures, and general corrosion may extend to the point that the metal loss affects structural properties. Given the complex geometry of aerospace construction, such corrosion may not be apparent through routine inspection and maintenance before reaching a failure point. This represents an important safety risk for users. Any international or regional regulations should carefully avoid compromising critical specifications by eliminating or restricting use of these chrome containing compounds in safety critical applications.

Research to identify suitable replacements for materials used in over 100 qualified specialty processes has been underway by the company, our suppliers and customers over the past twenty years and will continue until suitable replacements are developed, qualified and implemented. Many alternatives have been tested, but have not passed the performance requirements identified in the applicable specifications. Although significant research efforts are still ongoing, no drop-in alternatives exist today or should be expected for a majority of aerospace uses in the near future. It will likely take several substances to fulfill all of the requirements for the numerous materials and processes that currently rely on chromated materials for critical aerospace applications.

Sodium dichromate has a well known reputation as an excellent corrosion protective for aluminum components. It is currently and widely regarded as the most effective solutions available for the corrosion protection of aluminum airframes. It is extremely effective because of its ability to protect areas where damage has occurred.

No alternatives are available for uses including surface cleaning, etchants, passivation, magnesium anodize, anodic dichromate sealing, conversion coatings for copper and cadmium, pickling, gold plating, and scale conditioner. These applications are critical to metal processing and the prevention of corrosion and although significant research efforts are still ongoing, no drop-in alternatives exist today or should be expected in the near future

These specialty uses have no off-the-shelf alternatives available today. Corrosion protection being an essential defense mechanism for metallic components, many of the applications can be considered to be Safety Critical Applications. All such applications of chromic acid should be exempt from the requirements of Annex XIV.



1370	2011/09/14 08:16	Goodrich Corporation Company United States	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1366	2011/09/14 08:15	Rohr Aero Services inc Company United States	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted for safety and airworthiness. Without this additional time, it is anticipated that there will be extensive applications for authorisation to continue to use sodium dichromate if it appear



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1369	2011/09/14 08:15	Rohr Inc  Company United States	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1371	2011/09/14 08:15	Goodrich Krosno Ltd Company Poland	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted for safety and airworthiness. Without this additional time, it is anticipated that there will be extensive applications for authorisation to continue to use sodium dichromate if it appear



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1367	2011/09/14 08:14	Goodrich Aerospace Services Europe SAS Company France	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1354	2011/09/14 07:57	Ithaco Space Systems Inc Company United States	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1357	2011/09/14 07:57	Cloud Cap Technologies  Company United States	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted for safety and airworthiness. Without this additional time, it is anticipated that there will be extensive applications for authorisation to continue to use sodium dichromate if it appear



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1350	2011/09/14 07:56	Goodrich Corporation Company United States	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1351	2011/09/14 07:56	Goodrich Control Systems  Company United Kingdom	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1353	2011/09/14 07:56	Goodrich TEACO Aeronautical Systems (Xiamen) Company Ltd	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted for safety and airworthiness. Without this additional time, it is anticipated that there will be extensive applications for authorisation to continue to use sodium dichromate if it appear



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1355	2011/09/14 07:56	Recon/Optical Inc  Company United States	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1347	2011/09/14 07:55	Goodrich Corporation Company United Arab Emirates	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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134	9 2011/09/14 07:55	Goodrich Control Systems Pte Ltd  Company Australia	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted for safety and airworthiness. Without this additional time, it is anticipated that there will be extensive applications for authorisation to continue to use sodium dichromate if it appear



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1352	2011/09/14 07:55	Goodrich Aerospace Services SAS Company France	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1356	2011/09/14 07:55	Goodrich Control Systems Pte Ltd Company Singapore	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1348	2011/09/14 07:54	Goodrich Corporation Company United States	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted for safety and airworthiness. Without this additional time, it is anticipated that there will be extensive applications for authorisation to continue to use sodium dichromate if it appear



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1343	2011/09/14 07:36	TAEC Aerospace Company United States	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.



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1344	2011/09/14 07:36	Rosemount Aerospace Inc Company United States	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such



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1345	2011/09/14 07:36	Goodrich Corporation Company United States	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.



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1338	2011/09/14 07:35	Rosemount Aerospace SARL Company France	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1339	2011/09/14 07:35	Goodrich Control Systems Limited	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.
		France	While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1341	2011/09/14 07:35	Simmonds Precision Products Inc  Company United States	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted for safety and airworthiness. Without this additional time, it is anticipated that there will be extensive applications for authorisation to continue to use sodium dichromate if it appear



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1342	2011/09/14 07:35	Atlantic Inertial Systems  Company United States	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1346	2011/09/14 07:35	Rosemount Aerospace Inc Company China	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1336	2011/09/14 07:34	Atlantic Inertial Systems Itd  Company United Kingdom	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted for safety and airworthiness. Without this additional time, it is anticipated that there will be extensive applications for authorisation to continue to use sodium dichromate if it appear



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1337	2011/09/14 07:34	Goodrich Aerospace Pte Ltd  Company Singapore	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1340	2011/09/14 07:34	Rosemount Aerospace GmbH  Company Germany	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1335	2011/09/14 07:16	Microtecnica Srl Company United Kingdom	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted for safety and airworthiness. Without this additional time, it is anticipated that there will be extensive applications for authorisation to continue to use sodium dichromate if it appear



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1334	2011/09/14 07:15	Crompton Technology Group  Company United Kingdom	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1330	2011/09/14 07:14	Microtecnica srl  Company Italy	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1332	2011/09/14 07:14	Company France	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted for safety and airworthiness. Without this additional time, it is anticipated that there will be extensive applications for authorisation to continue to use sodium dichromate if it appear



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1333	2011/09/14 07:14	PT Goodrich Pindad Aeronautical Systems Indonesia	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.
			Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1327	2011/09/14 07:13	Goodrich Corporation Company Japan	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1328	2011/09/14 07:13	Goodrich Corporation Company United States	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted for safety and airworthiness. Without this additional time, it is anticipated that there will be extensive applications for authorisation to continue to use sodium dichromate if it appear



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1329	2011/09/14 07:13	Goodrich Corporation Company Mexico	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1331	2011/09/14 07:13	Goodrich Actuation Systems  Company United Kingdom	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1322	2011/09/14 06:53	Goodrich Control Systems Itd Company United Kingdom	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted for safety and airworthiness. Without this additional time, it is anticipated that there will be extensive applications for authorisation to continue to use sodium dichromate if it appear



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1323	2011/09/14 06:53	Goodrich Control Systems Itd Company United States	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1324	2011/09/14 06:53	Goodrich Pump and Engine control systems Inc Company United States	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1325	2011/09/14 06:53	Goodrich Control Systems Itd Company Canada	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted for safety and airworthiness. Without this additional time, it is anticipated that there will be extensive applications for authorisation to continue to use sodium dichromate if it appear



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1326	2011/09/14 06:53	Goodrich Control Systems Company Germany	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1321	2011/09/14 06:52	Goodrich corporation  Company United States	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow



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1320	2011/09/14 06:37	Goodrich Corporation	The aerospace industry is heavily regulated by CAA and EASA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Alternatives to Sodium Dichromate have actively been investigated for many years but it is still widely used because of its superior corresion performance for a broad range of applications. In
		Company United States	widely used because of its superior corrosion performance for a broad range of applications. In many cases, no direct safe alternatives either do exist or indeed may ever exist due to the unique nature of Chromium Chemistry amongst the Transition metals capable of higher integer oxidation states.  While similar physical behaviours have been observed in other elements, none come close to those of chromium and particularly the transition metal chromate's ability to provide long-term corrosion protect and self-healing corrosion prevention mechanisms for substrates. Even closely related elements within the Periodic Table fall far short of this ability to form tenacious and self healing surface layers.  Sodium dichromate has performed effectively in service for more than half a century, with characteristics that few other surface treatment chemicals can match. Its wide general oxidising power has been applied to surface processing for corrosion protection and to prepare such surfaces for even more robust, multi-stage corrosion protections. To develop this level of understanding of service envelopes and performance limits of other materials suggested as alternatives will require a similar period of development and testing.  In addition, chromium VI compounds are extremely effective because of their ability to protect areas where damage has occurred.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted for safety and airworthiness. Without this additional time, it is anticipated that there will be extensive applications for authorisation to continue to use sodium dichromate if it appears on Annex XIV. The level of effort that will be expended in making these applications could be better employed in sorting out



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1232	2011/09/14 01:08	KLM Engineering & Maintenance  Company Netherlands	Introduction KLM Engineering & Maintenance ( KLM E&M) is a part of the AirFrance KLM group and works closely together with Air France Industries. At AFI KLM E&M we provide MRO (maintenance, repair and overhaul) services at the same time as we guarantee a whole raft of your requirements ranging from safeguarding air safety, properly managing aircraft operation, and minimizing costs. We are supported in this by our 75-year-plus track record during which we have achieved a level of undisputed excellence in managing large aircraft fleets. Next to the Airfrance and KLM fleet we have over 150 customers world wide. KLM Engineering & Maintenance depends on the processes prescribed by OEM's (original equipment manufacturers). Therefore KLM Engineering & Maintenance is forced to carry out these prescribed processes. The materials uses in these processes fulfill a critical role in ensuring the continuing flight safety of aerospace products by inhibiting corrosion throughout the structure.  The materials are unique in that they comprise part of a certificate that establishes compliance with U.S. Federal Aviation Administration (FAA) and the European Aviation Safety Agency (EASA) stringent safety requirements. They are used as part of the corrosion control system for safety critical applications. For suitable alternatives and their approval KLM fully depends on the OEM's and regulating authorities.  Chromium (VI) compounds have been clearly identified as carcinogens, particularly causing lung cancer. However, in specific circumstances, the socio-economic benefits of these compounds are extensive and a case can be clearly made for their continued use.  The hazards associated with the hexavalent form of soluble chromium salts, such as sodium



dichromate (VI), are well known to the global aerospace and defence industry. It is agreed that the uses of this substance need to be well controlled to reduce and control the risks. Improvements in guidance and practices in recent years have potentially significantly improved the control of these risks. Studies are currently ongoing which will indicate whether risks are being effectively controlled using current best practice .These may also indicate whether any remaining risk is due to a lack of application of best practice or whether the best practice guidance is inadequate.

KLM has conducted several occupational exposure measurements to hexavalent chromium for the above processes. Results show no exceedance of the Dutch threshold limit value of hexavalent chromium. In fact, results show levels of hexavalent chromium below the detection limit of the analyzing equipment (below 0.1  $\mu$ g/m3), where the threshold limit value in the Netherlands is 0.25 mg/m3. Conclusion: the strict control measures guarantee a safe working environment for the KLM workers and there is no release to the environment of hexavalent chromium.

The aerospace industry is heavily regulated by EASA and FAA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.

No alternatives are available for uses including surface cleaning, etchants, passivation, magnesium anodize, anodic dichromate sealing, conversion coatings for copper and cadmium, pickling, gold plating, and scale conditioner.

If the use of sodium dichromate is not longer permitted KLM Engineering and Maintenance fears that above processes and probably the whole aircraft maintenance will have a strong competitive disadvantage and our customers will move their bussiness to countries outside the EU. General Comment 1: Consider Delaying Prioritisation

It is essential to know whether current controls are adequately addressing the risk or whether additional controls are required. For this reason, it would be prudent to await the outcome of the latest batch of studies into the health effects of chromium (VI) compounds before making a decision on whether sodium dichromate should be added to Annex XIV. If the study recommends that additional equipment is required to achieve optimum control of the risks, this may have an impact on the desire to pursue a potential authorisation request.

General Comment 2: Defer Prioritisation

Chromium (VI) compounds, of which sodium dichromate is an example, have a well known reputation as excellent corrosion protectives for aluminium components. Their use began in the 1930s and has continued to the present, giving an extensive period of experience and knowledge of their properties. They are currently and widely regarded as the most effective solutions



available for the corrosion protection of aluminium airframes. They are extremely effective because of their ability to protect areas where damage has occurred.

The development of alternative solutions, which do not contain sodium dichromate, has been the subject of Research and Development activities for a number of years, in some cases 20+, and is continuing. It is exceptionally complex. The timescales for such programmes are extensive: typically it is necessary to identify a range of possible alternatives, complete initial screening tests to allow the best contenders to emerge, develop these into commercially viable solutions and then complete the qualification testing demanded by the aerospace industry. Qualification testing has to be completed against either internationally recognised performance standards or internal company standards, in order to satisfy the quality requirements of the industry. The safety critical performance criteria that needs to be met has meant that alternatives have fallen well short. If an alternative is developed it must go through a rigorous program of testing including approvals from EASA (European Aviation Safety Agency) and FAA (Federal Aviation Administration). These are varied depending on the application and will require airworthiness testing.

For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted. Without this delay, it is anticipated that there will be extensive applications for authorisation to continue to use sodium dichromate when it appears on Annex XIV. The level of effort that will be expended in making these applications could be better employed in sorting out the qualification and introduction of alternatives. Similarly, the resources required at ECHA to deal with these applications could be better employed on other topics.

An additional reason for deferring the prioritisation of sodium dichromate is the need to allow sufficient time for the formation of suitable consortia, involving actors from all parties concerned in the supply chain. These are essential if comprehensive applications are to be made for Authorisation. Given the complex nature of an application for Authorisation, and the likely need for negotiations involving value of existing background data and intellectual property rights, an extended period of time is required to allow consortia to be formed.



1200	2011/09/13 20:23	Safran-Group  Company France	Safran is a member of ASD (European Aerospace and Defence Association) and fully support the comment which has been uploaded by our it on this substance Sodium Dichromate: 286241a3-d67c-4b58-92f7-37276f0f0c43).
1184	2011/09/13 19:43 File attached	Company France	The use of Sodium dichromatein surface treatment doesn't meet the criteria of priorisation; please see the enclosed letter
1135	2011/09/13 18:26	Agoria  Industry or trade association Belgium	The prioritization of the different chromium compounds does not seem appropriate for Agoria. Their classification make these chromium compounds eligible to be prioritized but there are doubts on the claimed widespread use of these chromium compounds as well as on the exposure which has an impact on the prioritization.  The exposure on the workplace is limited given the precautionary measures taken due to the toxic nature of the chromium compounds. Several elements should be taken into account such as the type of installation level, the exact number of people exposed as well as the in general low level of exposure and the lack of consumer exposure.  The installations used within industry are designed to limit strongly the potential exposure of workers to the maximum. Different concepts are existing through either the use of closed full automatic installations, collective protection equipment such as the suppression of chromate vapors by a mist or by the use of adequate individual protection equipment linked to an appropriate internal organization together with all other eventual measures.  The number of workers exposed is much more limited than supposed in the annex XV document, given that in several companies the chrome unit is only a limited part of the installation and not all workers are active/exposed in it. In some companies the chrome unit is only one, yet vital, processing unit, with a limited number of staff exposed (sometimes a range of less than 10



workers potentially exposed to the chromium unit compared to 500 to 4.000 workers for the complete plant). Our estimation in Belgium is that approximately 300 workers are exposed to chromates, max. 200 in hard chrome and decorative chromium plating and max 100 in passivation with chromium VI compounds. The total employment concerned within the global supply chain, including the indirect employment is however much higher as indicated already above. Given that the process is in certain installations linked to the production of highly complex products, the socio-economic impact can be much higher. In certain cases the complete industrial installation can become obsolete if this essential production step cannot be done anymore due to a lack of authorization. Finding proper alternatives for chrome in plating, taking into account the broad technical properties of chrome in the surface protection as well as the economical viability is rather difficult as otherwise these alternatives would have already been put in practice. Chrome plating is most vulnerable since there is no authorisation required to import chrome plated parts.

The exposure level is in general lower than the data used in the Annex XV dossier. Agoria estimates, based upon some measurements and medical follow-up in companies, the general level of exposure between 0,01-0,001 mg/m3 well below the level which is in general put forward as limit value at Belgian level (0,05 mg/m3). Sometimes, the measurements of chromium in the environment is suspended given that these measurements are below the detection limit and only bio-monitoring (urine) is used as a proper follow-up of exposure. The values in the annex XV dossier, are also critically reviewed by a Fraunhofer report commissioned for ZVO (see: http://www.zvo.org/uploads/media/Chromtrioxid\_SVHC\_\_2011-09-05\_Final\_EN.pdf)

and concludes that the quality of the data used in the report can be questioned and yet they are used to extrapolate the situation not only at German level but more broadly on an European level in order to prioritize these chrome compounds.

On the level of consumer exposure one should clarify that the final hard chrome plated product does not contain any chrome VI components given that they are all transformed during the plating process into hard chrome metal. Exposure of end consumers from hard chrome plating does therefore not exist for this surface treatment technology. An important point regarding chromates is the factor that the chromium VI is between the article and the plating which reduces the potential of exposure and the chromium VI oxides very quickly in a corrosion process or in contact with any organic material. We therefore believe that the factor wide dispersive use for the prioritization should take into account these elements in order to create a more correct view on the prioritization needed for these substances.

In the annex XV dossier some alternatives are described but these are in our view not well



documented. Important elements which are lacking are amongst others:

- The economic feasibility of the substitution linked to the factor that imported articles with chrome plating will remain a fact after the sunset date,
- The technological challenge including the economic costs for re-designing products as well as production facilities given that complete new installation have to be put in place for the alternatives,
- The technical properties of the substitution including long term behavior and certification. In different current markets, such as automotive, off-road vehicles, aeronautic applications, ... with strong, long term quality guarantees, security issues and very stringent certification obligations. This increases the technical challenges of any substitution program, In fact several worldwide research activities were conducted in the past already for the substitution of chromium without any major success. (Ecochrom, HCAT, JCAT...) Technologies which are mentioned in the annex XV file do not permit the substitution of an important part of the use for chromium six compounds for chromate passivation, chromic anodizing and chrome plating.

A first and limited overview of some typical alternatives put forward for hard chrome: Thermal spray and HVOF: These technologies are not available for deposits less than 80 microns. Thermal spray doesn't permit treating pieces with complex size and geometry. Thermal spray is only adapted for the production of single pieces and mass production is not possible. Hard chromium plating stays a surface treatment process without alternative options for at least 70% of these applications (aerospace application, mechanical, nuclear, alimentary compatibility...) and this without considering costs.

Vacuum coatings: Vacuum coatings are realized in closed containments. The thickness of deposits can't exceed 5 microns. This technology does not provide a proper corrosion protection. The time to realize deposit makes vacuum coatings for mass production economically and technically impossible. Moreover, the cost of the coatings is three times more expensive than a surface treatment realized by a wet process such as chromium plating including state of the art water and air treatment.

Zinc based alternatives: zinc coatings are offer cathodic corrosion protection which means that they dissolve themselves in order to protect pieces against corrosion. So, coating thickness is very important in order to provide the necessary corrosion protection over a given time period. Chromium coatings offer anodic protections. The coating isn't dissolved over the time of corrosion protection which assures a good durability of the corrosion protection of the product. Zinc based alternatives haven't the same technical characteristics than coatings made with chromium six compounds (hardness, wear resistance, coefficient of friction, anti-sticking



			properties) Nickel based alternatives: Electroless nickel offers interesting properties and these are probably maximally exploited. Limits are hardness (highest hardness requires heat-treatment), less antiadhesive, risk for porosity, less suited and prohibitive costs for thickness >30 µm, slow process, outperformed by chromium in lubricated conditions (hydraulics), costly process (difficult to control and continuously changing composition), use of soluble nickel salts,  Chromium III coating: chromium deposits realized with trivalent chromium are possible for decorative coatings, with low thickness (typically < 0.5 µm). It is impossible to obtain deposit with big thickness achieving the technical performance hard chromium plating. This technology needs three chromium baths and its technical implementation is much more difficult than baths with chromium six. The deposit cost is also multiplied by a factor three.  Part modification: in this case there is a need to replace material such as titanium, plastic, aluminum by steel which can be heat-treated. In most cases the weight is an issue and the pieces in aeronautic must be the most lightest possible to answer the technical challenge and makes this alternative technically not possible. Moreover heat-treatment causes variation on the part's dimensions which is incompatible with the final utilization's pieces.  It is important to remember that all these alternatives do not cover all the applications obtained by chromium six compounds. Many applications are not mentioned in the annex XV document. This is the case for black chromium, stripping of plastics, conversion of stainless or cadmium for which no alternative exist today.
1132	2011/09/13 18:24 File attached Confidential	International NGO United Kingdom	General Comments on the Recommendation to Include the Substance in Annex XIV Introduction Chromium (VI) compounds are clearly classified in regulations as carcinogenic and thus meet the criteria for inclusion in the candidate list and Annex XIV. However, with proper control and adherence to good workplace safety practices, risks can be adequately controlled. In specific circumstances, the socio-economic benefits of these compounds are extensive and a case can be clearly made for their continued use.  The hazards associated with the hexavalent form of soluble chromium salts, such as sodium dichromate (VI), are well known to the global aerospace and defence industry. It is agreed that the uses of this substance need to be well controlled to reduce and control the risks.  Improvements in guidance and practices in recent years have potentially significantly improved the control of these risks. Studies are currently ongoing which will indicate whether risks are being effectively controlled using current best practice (for example see http://www.sro.hse.gov.uk – JN4077 – Biological Monitoring in Surface Engineering – Project



Number: OH36). These may also indicate whether any remaining risk is due to a lack of application of best practice or whether the best practice guidance is inadequate. The aerospace industry makes use of sodium dichromate as a key part of the corrosion protection scheme applied to airframe components. It is vital that aircraft, which can have a life cycle in excess of 40 years have excellent corrosion protection and this substance has proved to be one of the most effective. Alternatives have been tested but found to have inferior properties. The aerospace industry is heavily regulated by EASA and FAA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. For these reasons, the aerospace industry requests that sodium dichromate be exempt from Annex XIV of REACH for aerospace applications.

General Comment 1: Consider Delaying Prioritisation

The aerospace industry requests that sodium dichromate be exempt from Annex XIV of REACH for aerospace applications. If this is unacceptable to ECHA, the longest possible timescales are requested to allow for alternatives to be identified, tested and qualified.

It is essential to know whether current controls are adequately addressing the risk or whether additional controls are required. For this reason, it would be prudent to await the outcome of the latest batch of studies into the health effects of chromium (VI) compounds before making a decision on whether sodium dichromate should be added to Annex XIV. If the study recommends that additional equipment is required to achieve optimum control of the risks, this may have an impact on the desire to pursue a potential authorisation request. General Comment 2: Defer Prioritisation

The aerospace industry requests that sodium dichromate be exempt from Annex XIV of REACH for aerospace applications. If this is unacceptable to ECHA, the longest possible timescales are requested to allow for alternatives to be identified, tested and qualified.

Chromium (VI) compounds, of which sodium dichromate is an example, have a well known reputation as excellent corrosion protectives for aluminium components. Their use began in the 1930s and has continued to the present, giving an extensive period of experience and knowledge of their properties. They are currently and widely regarded as the most effective solutions available for the corrosion protection of aluminium airframes. They are extremely effective because of their ability to protect areas where damage has occurred.

The development of alternative solutions, which do not contain sodium dichromate, has been the subject of Research and Development activities for a number of years, in some cases 20+, and is continuing. It is exceptionally complex. The timescales for such programmes are extensive: typically it is necessary to identify a range of possible alternatives, complete initial screening



			tests to allow the best contenders to emerge, develop these into commercially viable solutions and then complete the qualification testing demanded by the aerospace industry. Qualification testing has to be completed against either internationally recognised performance standards or internal company standards, in order to satisfy the quality requirements of the industry. The safety critical performance criteria that needs to be met has meant that alternatives have fallen well short. If an alternative is developed it must go through a rigorous program of testing including approvals from EASA (European Aviation Safety Agency) and FAA (Federal Aviation Administration). These are varied depending on the application and will require airworthiness testing.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted. Without this delay, it is anticipated that there will be extensive applications for authorisation to continue to use sodium dichromate when it appears on Annex XIV. The level of effort that will be expended in making these applications could be better employed in sorting out the qualification and introduction of alternatives. Similarly, the resources required at ECHA to deal with these applications could be better employed on other topics.  An additional reason for deferring the prioritisation of sodium dichromate is the need to allow sufficient time for the formation of suitable consortia, involving actors from all parties concerned in the supply chain. These are essential if comprehensive applications are to be made for Authorisation. Given the complex nature of an application for Authorisation, and the likely need for negotiations involving value of existing background data and intellectual property rights, an extended period of time is required to allow consortia to be formed.
1362	2011/09/13 18:24 File attached Confidential	International NGO United Kingdom	General Comments on the Recommendation to Include the Substance in Annex XIV Introduction Chromium (VI) compounds are clearly classified in regulations as carcinogenic and thus meet the criteria for inclusion in the candidate list and Annex XIV. However, with proper control and adherence to good workplace safety practices, risks can be adequately controlled. In specific circumstances, the socio-economic benefits of these compounds are extensive and a case can be clearly made for their continued use.  The hazards associated with the hexavalent form of soluble chromium salts, such as sodium dichromate (VI), are well known to the global aerospace and defence industry. It is agreed that the uses of this substance need to be well controlled to reduce and control the risks.  Improvements in guidance and practices in recent years have potentially significantly improved the control of these risks. Studies are currently ongoing which will indicate whether risks are



being effectively controlled using current best practice (for example see http://www.sro.hse.gov.uk – JN4077 – Biological Monitoring in Surface Engineering – Project Number: OH36). These may also indicate whether any remaining risk is due to a lack of application of best practice or whether the best practice guidance is inadequate.

The aerospace industry makes use of sodium dichromate as a key part of the corrosion protection scheme applied to airframe components. It is vital that aircraft, which can have a life cycle in excess of 40 years have excellent corrosion protection and this substance has proved to be one of the most effective. Alternatives have been tested but found to have inferior properties. The aerospace industry is heavily regulated by EASA and FAA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. For these reasons, the aerospace industry requests that sodium dichromate be exempt from Annex XIV of REACH for aerospace applications.

General Comment 1: Consider Delaying Prioritisation

The aerospace industry requests that sodium dichromate be exempt from Annex XIV of REACH for aerospace applications. If this is unacceptable to ECHA, the longest possible timescales are requested to allow for alternatives to be identified, tested and qualified.

It is essential to know whether current controls are adequately addressing the risk or whether additional controls are required. For this reason, it would be prudent to await the outcome of the latest batch of studies into the health effects of chromium (VI) compounds before making a decision on whether sodium dichromate should be added to Annex XIV. If the study recommends that additional equipment is required to achieve optimum control of the risks, this may have an impact on the desire to pursue a potential authorisation request.

General Comment 2: Defer Prioritisation

The aerospace industry requests that sodium dichromate be exempt from Annex XIV of REACH for aerospace applications. If this is unacceptable to ECHA, the longest possible timescales are requested to allow for alternatives to be identified, tested and qualified.

Chromium (VI) compounds, of which sodium dichromate is an example, have a well known reputation as excellent corrosion protectives for aluminium components. Their use began in the 1930s and has continued to the present, giving an extensive period of experience and knowledge of their properties. They are currently and widely regarded as the most effective solutions available for the corrosion protection of aluminium airframes. They are extremely effective because of their ability to protect areas where damage has occurred.

The development of alternative solutions, which do not contain sodium dichromate, has been the subject of Research and Development activities for a number of years, in some cases 20+, and is



			continuing. It is exceptionally complex. The timescales for such programmes are extensive: typically it is necessary to identify a range of possible alternatives, complete initial screening tests to allow the best contenders to emerge, develop these into commercially viable solutions and then complete the qualification testing demanded by the aerospace industry. Qualification testing has to be completed against either internationally recognised performance standards or internal company standards, in order to satisfy the quality requirements of the industry. The safety critical performance criteria that needs to be met has meant that alternatives have fallen well short. If an alternative is developed it must go through a rigorous program of testing including approvals from EASA (European Aviation Safety Agency) and FAA (Federal Aviation Administration). These are varied depending on the application and will require airworthiness testing. For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted. Without this delay, it is anticipated that there will be extensive applications for authorisation to continue to use sodium dichromate when it appears on Annex XIV. The level of effort that will be expended in making these applications could be better employed in sorting out the qualification and introduction of alternatives. Similarly, the resources required at ECHA to deal with these applications could be better employed on other topics.  An additional reason for deferring the prioritisation of sodium dichromate is the need to allow sufficient time for the formation of suitable consortia, involving actors from all parties concerned in the supply chain. These are essential if comprehensive applications are to be made for Authorisation. Given the complex nature of an application for Authorisation, and the likely need for negotiations involving value of existing background data and intellectual property rights, an
1113	2011/09/13 18:07 File attached	L'ELECTROLYS E Company France	The use of sodium dichromate in surface treatment doesn't meet the criteria of priorisation; please see the enclosed letter



1117	2011/09/13 18:06 File attached	Industry or trade association France	
1097	2011/09/13 17:53	AgustaWestlan d Ltd  Company United Kingdom	Chromium (VI) compounds are clearly classified in regulations as carcinogenic and thus meet the criteria for inclusion in the candidate list and Annex XIV. In particular, they have been identified as causing lung cancer. Therefore it is acknowledged that there are no absolute safe limits for these compounds. However, with proper control and adherence to good workplace safety practices, risks can be adequately controlled. In specific circumstances, the socio-economic benefits of these compounds are extensive and a case can be clearly made for their continued use.  The hazards associated with the hexavalent form of soluble chromium salts, such as sodium dichromate (VI), are well known to the global aerospace and defence industry. It is agreed that the uses of this substance need to be well controlled to reduce and control the risks.  Improvements in guidance and practices in recent years have potentially significantly improved the control of these risks. Studies are currently ongoing which will indicate whether risks are being effectively controlled using current best practice (for example see http://www.sro.hse.gov.uk – JN4077 – Biological Monitoring in Surface Engineering – Project Number: OH36). These may also indicate whether any remaining risk is due to a lack of application of best practice or whether the best practice guidance is inadequate.  The aerospace industry makes use of sodium dichromate as a key part of the corrosion protection scheme applied to airframe components. It is vital that aircraft, which can have a life cycle in excess of 40 years have excellent corrosion protection and this substance has proved to be one of the most effective. Alternatives have been tested but found to have inferior properties. A number of our rotorcraft will be deployed in harsh environments such as marine and desert, therefore the additional corrosion protection is vital to protect the airframe and critical components. The aerospace industry is heavily regulated by EASA and FAA having to conform to extremely rigorous



aerospace industry requests that sodium dichromate be exempt from Annex XIV of REACH for aerospace applications.

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General Comment 2: Defer Prioritisation

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1084	2011/09/13 17:33	Germany  MemberState Germany	We support the ECHA proposal on prioritisation of sodium dichromate due to its CMR properties, high volume and widespread uses.  Conclusion, taking regulatory effectiveness considerations into account, page 5: As hexavalent chromium is the toxicologically relevant species in this compound not only replacement by other hexavalent chromium compounds but also the overall addition of hexavalent chromium from different chromium VI sources should be taken into account. In this regard all hexavalent chromium compounds should be treated equally with respect to prioritisation.
1079	2011/09/13 17:23 File attached	Atelier Industriel de l'aéronautique de Clermont-Fd	The use of chrome IV in surface treatment doesn't meet the criteria of priorisation; please see the enclosed letter.
		Company France	



1078	2011/09/13 17:20 File attached	L'ELECTROLYS E Company France	The use of sodium dichromate in surface treatment doesn't meet the criteria of priorisation; please see the enclosed letter
1065	2011/09/13 17:06 File attached	Company France	Introduction Chromium (VI) compounds are clearly classified in regulations as carcinogenic and thus meet the criteria for inclusion in the candidate list and Annex XIV. In particular, they have been identified as causing lung cancer. Therefore it is acknowledged that there are no absolute safe limits for these compounds. However, with proper control and adherence to good workplace safety practices, risks can be adequately controlled. In specific circumstances, the socio-economic benefits of these compounds are extensive and a case can be clearly made for their continued use.  The hazards associated with the hexavalent form of soluble chromium salts, such as sodium dichromate (VI), are well known to the global aerospace and defence industry. It is agreed that the uses of this substance need to be well controlled to reduce and control the risks. Improvements in guidance and practices in recent years have potentially significantly improved the control of these risks. Studies are currently ongoing which will indicate whether risks are being effectively controlled using current best practice (for example see http://www.sro.hse.gov.uk – JN4077 – Biological Monitoring in Surface Engineering – Project Number: OH36). These may also indicate whether any remaining risk is due to a lack of application of best practice or whether the best practice guidance is inadequate. The aerospace industry makes use of sodium dichromate as a key part of the corrosion protection scheme applied to airframe components. It is vital that aircraft, which can have a life cycle in excess of 40 years have excellent corrosion protection and this substance has proved to be one of the most effective. Alternatives have been tested but found to have inferior properties. The aerospace industry is heavily regulated by EASA and FAA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. For these reasons, the aerospace industry requests that sod



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1053	2011/09/13 16:55 File attached	UITS  Trade Union France	the use of sodium bichromate in surface treatment doesn't meet the criteria of priorisation.  - Very low exposition for automatic process  - Very low consumers exposure with conversion (less than 0,1%)  - environnemental exposition and workers exposition are controlled by regulations
1034	2011/09/13 16:32	Company Germany	Chromium (VI) compounds are clearly classified in regulations as carcinogenic and thus meet the criteria for inclusion in the candidate list and Annex XIV. In particular, they have been identified as causing lung cancer. Therefore it is acknowledged that there are no absolute safe limits for these compounds. However, with proper control and adherence to good workplace safety practices, risks can be adequately controlled. In specific circumstances, the socio-economic benefits of these compounds are extensive and a case can be clearly made for their continued use.  The hazards associated with the hexavalent form of soluble chromium salts, such as sodium dichromate (VI), are well known to the global aerospace and defence industry. It is agreed that the uses of this substance need to be well controlled to reduce and control the risks. Improvements in guidance and practices in recent years have potentially significantly improved the control of these risks. Studies are currently ongoing which will indicate whether risks are being effectively controlled using current best practice (for example see http://www.sro.hse.gov.uk – JN4077 – Biological Monitoring in Surface Engineering – Project



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			tests to allow the best contenders to emerge, develop these into commercially viable solutions and then complete the qualification testing demanded by the aerospace industry. Qualification testing has to be completed against either internationally recognised performance standards or internal company standards, in order to satisfy the quality requirements of the industry. The safety critical performance criteria that needs to be met has meant that alternatives have fallen well short. If an alternative is developed it must go through a rigorous program of testing including approvals from EASA (European Aviation Safety Agency) and FAA (Federal Aviation Administration). These are varied depending on the application and will require airworthiness testing.  For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted. Without this delay, it is anticipated that there will be extensive applications for authorisation to continue to use sodium dichromate when it appears on Annex XIV. The level of effort that will be expended in making these applications could be better employed in sorting out the qualification and introduction of alternatives. Similarly, the resources required at ECHA to deal with these applications could be better employed on other topics.  An additional reason for deferring the prioritisation of sodium dichromate is the need to allow sufficient time for the formation of suitable consortia, involving actors from all parties concerned in the supply chain. These are essential if comprehensive applications are to be made for Authorisation. Given the complex nature of an application for Authorisation, and the likely need for negotiations involving value of existing background data and intellectual property rights, an extended period of time is required to allow consortia to be formed.
1016	2011/09/13 15:55	ETNA Industrie	The use of chromium trioxide in surface treatment doesn't meet the criteria of priorisation; please see the enclosed letter
		Company France	



	I	T	
1013	2011/09/13 15:51 File attached	Aerospace and Defence Industries of Europe  Industry or trade association Belgium	Chromium (VI) compounds are clearly classified in regulations as carcinogenic and thus meet the criteria for inclusion in the candidate list and Annex XIV. In particular, they have been identified as causing lung cancer. Therefore it is acknowledged that there are no established safe limits for these compounds. However, with proper control and adherence to good workplace safety practices, risks can be adequately controlled. In specific circumstances, the socio-economic benefits of these compounds are extensive and a case can be clearly made for their continued use.  The hazards associated with the hexavalent form of soluble chromium salts, such as sodium dichromate (VI), are well known to the global aerospace and defence industry. It is agreed that the uses of this substance need to be well controlled to reduce and control the risks. Improvements in guidance and practices in recent years have potentially significantly improved the control of these risks. Studies are currently ongoing which will indicate whether risks are being effectively controlled using current best practice (for example see http://www.sro.hse.gov.uk - JN4077 - Biological Monitoring in Surface Engineering - Project Number: OH36). These may also indicate whether any remaining risk is due to a lack of application of best practice or whether the best practice guidance is inadequate. The aerospace industry makes use of sodium dichromate as a key part of the corrosion protection scheme applied to airframe components. It is vital that aircraft, which can have a life cycle in excess of 40 years have excellent corrosion protection and this substance has proved to be one of the most effective. Alternatives have been tested but found to have inferior properties. The aerospace industry is heavily regulated by EASA and FAA having to conform to extremely rigorous standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable. For these reasons, the aerospace industry requests that sodium dichro
			latest batch of studies into the health effects of chromium (VI) compounds before making a decision on whether sodium dichromate should be added to Annex XIV. If the study
			recommends that additional equipment is required to achieve optimum control of the risks, this
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An additional reason for deferring the prioritisation of sodium dichromate is the need to allow sufficient time for the formation of suitable consortia, involving actors from all parties concerned in the supply chain. These are essential if comprehensive applications are to be made for Authorisation. Given the complex nature of an application for Authorisation, and the likely need for negotiations involving value of existing background data and intellectual property rights, an extended period of time is required to allow consortia to be formed.



990	2011/09/13 14:59	Sweden  MemberState Sweden	We support the prioritisation of sodium dichromate for inclusion in Annex XIV. The substance has high priority due to high volume and wide dispersive use.
923	2011/09/13 12:58	Lufthansa Technik Aktiengesellsch aft Company Germany	Chromium (VI) compounds have been clearly identified as carcinogens, particularly causing lung cancer. Therefore it is acknowledged that there are no absolute safe limits for these compounds. However, in specific circumstances, the socio-economic benefits of these compounds are extensive and a case can be clearly made for their continued use.  The hazards associated with the hexavalent form of soluble chromium salts, such as sodium dichromate (VI), are well known to the global aerospace and defence industry. It is agreed that the uses of this substance need to be well controlled to reduce and control the risks.  Improvements in guidance and practices in recent years have potentially significantly improved the control of these risks.  The aerospace industry is heavily regulated by EASA having to conform to extremely rigorous certification standards. Product safety is of paramount importance and alternatives with reduced performance would be totally unacceptable.  Consider Delaying Prioritisation  It is essential to know whether current controls are adequately addressing the risk or whether additional controls are required. For this reason, it would be prudent to await the outcome of the



latest batch of studies into the health effects of chromium (VI) compounds before making a decision on whether sodium dichromate should be added to Annex XIV. If the study recommends that additional equipment is required to achieve optimum control of the risks, this may have an impact on the desire to pursue a potential authorisation request.

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			for negotiations involving value of existing background data and intellectual property rights, an extended period of time is required to allow consortia to be formed.
906	2011/09/13 12:03	AIA-CP	The use of chromium trioxide in surface treatment doesn't meet the criteria of priorisation; please see the enclosed letter
	File attached	Company France	
898	2011/09/13 11:52	European Aviation Safety Agency	
		European Institution Germany	
854	2011/09/12 19:39 File attached	DALIC  Company France	The use of sodium dichromate in our surface treatment doesn't meet the criteria of prioritization:  - Very low exposition for local conversions due to the short time of application (less than 30 seconds) and to the working temperature (ambient).  - Very occasionally/ few employee exposed  - No consumers exposure with the dangerous substance.  - Environnemental exposition controlled by regulations.
831	2011/09/12 17:55 File attached	Company United Kingdom	Introduction Chromium (VI) compounds are clearly classified in regulations as carcinogenic and thus meet the criteria for inclusion in the candidate list and Annex XIV. In particular, they have been identified as causing lung cancer. Therefore it is acknowledged that there are no absolute safe limits for these compounds. However, with proper control and adherence to good workplace safety



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An additional reason for deferring the prioritisation of sodium dichromate is the need to allow sufficient time for the formation of suitable consortia, involving actors from all parties concerned in the supply chain. These are essential if comprehensive applications are to be made for Authorisation. Given the complex nature of an application for Authorisation, and the likely need for negotiations involving value of existing background data and intellectual property rights, an extended period of time is required to allow consortia to be formed.



809	2011/09/12 16:43 File attached	France	the use of sodium dichromate in surface treatment doesn't meet the criteria of prioritisation; please see the joined letter.
711	2011/09/09 19:56 File attached Confidential	Industry or trade association Belgium	Introduction For both sodium dichromate and chromium trioxide, a draft ECHA recommendation for prioritisation was published on June 15th, 2011. This has been the start of the Public Consultation. APEAL, the association of European producers of steel for packaging, being downstream users of both substances, would like to submit additional information to the comments submitted under the public consultation on July 29, 2011.  As the format to submit comments on the draft recommendation of substances for inclusion in Annex XIV requires, we provide two submissions: this one for sodium dichromate and a second one for chromium trioxide. Nevertheless, the two substances cannot be fully treated separately, as they render the same purpose and chromium trioxide is used in sodium dichromate solutions for pH adjustment. Therefore, chapter 2 "Data on exposure to workers" is similar in both documents. For the other chapters, references to the sodium dichromate document will be made in the chromium trioxide document.  For the purpose of our interest, there are generally two use applications of concern of sodium dichromate and chromium trioxide that are of relevance to the manufacture of steel packaging. These are:  - Electrolytic Tin Plating (ETP), also known as tinplate; and - Electrolytic Chromium Coated Steel (ECCS) or Tin-free Steel (TFS).  Passivation of ETP is carried out by a chromium plating treatment, in order to reduce the thickness of tin oxides formed during re-melting. The electrolytic treatment produces a layer containing chromium (chromium metal and chromium (III) oxide/hydroxide) which prevents subsequent oxidation in air and also improves adhesion of the lacquer layer.  ECCS is produced by electrolysis from a chromium VI solution resulting in a layer containing chromium (chromium and chromium (III) oxide/hydroxide).  In this document we would like to demonstrate that the tinplate industry is well aware of the
			risks associated with the use of chromate substances. The industry has been active for more than 20 years on reduction of the risk of chromate uses and on research to find suitable



alternatives for the steel for packaging applications that meets the high quality performance indicators for the use application in ETP and ECCS. These research activities have been shared among the different companies and discussed with other international producers of steel for packaging.

In order to do so, we will integrate in this document information about the following points, which are important to clarify:

- 1. General data on the steel for packaging industry
- 2. Data on exposure to consumers and workers
- 3. Data on the use of chromates for the manufacture of steel for packaging.
- 4. Analysis of alternatives and the resulting demand for additional time to execute the complex process of substituting chromates by a sustainable alternative that does not have a negative impact on steel for packaging

The further evidence provided hereunder proves the need to revise the priority scoring as well as the relevancy for a deadline for the application for authorization in order to maximize the efforts for a sustainable substitution of sodium dichromate and chromium trioxide for steel packaging applications to which the concerned user industry sector agrees.

1. General information on the steel for packaging industry:

As a packaging material, steel is unique by its strength, formability and durability, which offer numerous benefits for the packaging of a wide variety of products. Hence it has proven to be the material of choice where "pack integrity" is a vital demand, high speed filling operations are requested and long storage times may be needed. Steel is the packaging material for the food and beverage storage and others, which best protects and preserves its contents from oxygen, light, and other external elements, preventing waste and spoilage. Many industries rely on the availability of steel packaging to be able to handle, process and store large volumes of products with high levels of reliability for consumer and industrial markets.

Tin plate articles are for 100 per cent recyclable without any loss in quality and its unique magnetic properties make it the easiest and most economical packaging material to sort and recover. With a recycling rate of more than 72% (2009 data), it is the most recycled packaging material in Europe (EU 27).

These qualities make steel an excellent packaging material, not only for food and drink, but also for aerosols, paint cans, industrial products, decorative cans and bottle tops and caps. There are five user companies of sodium dichromate and chromium trioxide for the production of ETP and/or ECCS in Europe. These include Arcelor Mittal, Riva Group, Tata Steel Packaging, Rasselstein GmbH and US Steel Europe. Eleven production plants can be found in eight EU



countries. This document will refer to the nine out of the eleven plants which belong to APEAL members. Nevertheless, these nine plants produce over 95% of the EU production.

The following figure summarizes historical information on the production of ETP and ECCS in the EU for the last 20 years (over the period 1990-2010). This figure suggests that production has ranged around 4 800 000 tonnes per year (with a low in 2009, as a result of the global economic crisis).

The passivation layer is very thin (5 milligram per m<sup>2</sup>) and the total use of chromate is low (approximately 300 tonnes per year, see chapter 3 for more details).

There are five key market segments for ETP and ECCS in the EU. They comprise of packaging for foodstuff, beverages, aerosols, 'general line' (e.g. paint cans), closures for packaging; next to these, there are some non-packaging applications. Conclusions

The total volume of the European manufacturing of steel for packaging is 4 800 000 tonnes per year. The markets for steel for packaging are diverse and versatile. Steel for packaging is both imported in and exported from the European Union, thus demonstrating its dynamics and viability.

## 2. Data on the exposure to consumers and workers

### 2.1 Exposure of consumers

The electro-deposition principle proceeds to a strict Chromium VI free layer, with two chromium components: Cr0 ( metal ) and CrIII ( 3+ valence ). Powerful rinsing treatments under strict conductivity control prevent any risk of strip surface recontamination.

An evaluation of tinplate and ECCS according to legal requirements for food contact materials, made in 2008, showed that there were no detectable chromium VI compounds levels in migrates of tin plate or ECCS treated with simulants (see document attached under IV. Attachment). 2.2 Exposure of workers

The only critical stage where there may be an exposure to chromium VI compounds is for workers during the tin plate and ECCS production stage. Specific exhausts systems are implemented over chromic treatment sections. We demonstrate that for safety reasons, workers' exposure to chromium VI compound is kept at lowest level possible.

As shown in table 1, we can safely say that measurements of exposure levels are under 10  $\mu g/m^3$ , as is stated in the Chemical Safety Report for the Registration of sodium dichromate. These exposure levels can be classified as low. Furthermore, in nearly all European manufacturing lines exposure data confirm that the stricter US legal limit of 5  $\mu g/m^3$  is not



			exceeded. Table 1: Exposure data for the production sites of the APEAL members. In one specific case (site A), the measurement methodology only permits a confirmation of airborne values
698	2011/09/09 16:21 File attached Confidential	Company Netherlands	Organon NV requests certain use of Sodium Dichromate to be exempt from inclusion in Annex XIV.
675	2011/09/09 13:03	Hach Lange GmbH Company Germany	Sodium dichromate is a compound that is used in laboratory analysis for different reaction. The reagent is used for laboratory and field analysis, and ready for use. The advantage of the reagent set is, that the risk of contamination by the noxious substances, is low for the user. It is effectively a closed system. Accordingly, the risk of coming into contact with the reagent is very low.  Compared with the conventional reference procedures, the regents set needs less pollutants, and a correspondingly smaller quantity of Sodium dichromate.  Therefore, it is essential to exempt the use of Sodium dichromate for "analysis purposes" respective "laboratory uses" from the requirement for approval, or it should be classified as an



			approved use
657	2011/09/09 11:39 File attached	Company Germany	
619	2011/09/08 10:29	CEFIC Sodium Chlorate Sector Group Industry or trade association Belgium	Use of sodium dichromate in manufacturing of sodium chlorate  The Sodium Chlorate CEFIC Sector Group would like to make known information concerning the substance sodium dichromate for the reason that a major application of the substance has not been referenced in the background document developed in the context of ECHA's third Recommendation for the inclusion of substances in Annex XIV.  Sodium dichromate is a critical raw material for the manufacture of sodium chlorate (NaClO3) which is used as a bleaching agent for chemical wood pulp in the manufacture of pulp and paper.  In a publication from 2007 (2), the role of sodium dichromate is described to increase the current efficiency by suppressing parasitic cathodic reactions. In electrolytic manufacture of sodium chlorate chloride is oxidized via chlorine and hypochlorite to chlorate (3,4). Primarily, chlorine is formed on a noble metal activated anode while hydrogen is formed on a steel cathode. In order to avoid cathodic reduction of hypochlorite and chlorate, addition of sodium dichromate is needed in the electrolyte. A chromium (III) hydroxide film is built up on the steel cathode and the exposed areas of iron oxides, active for chlorate reduction, are reduced. Other beneficial effects of the use of sodium dichromate is acting as a pH buffer and reducing the production of anodic oxygen. When the electrolysis is interrupted, the cathodic protection is lost and the steel is attacked by remaining hypochlorite resulting in severe corrosion.  Experiments (5) have shown that the chromium (sodium dichromate) can not be replaced by other additives with sustained high current efficiency. It has also been concluded that



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608 2011	./09/07	We highlig	ght ou	r full com	mitmer	nt to co	mply wi	ith REACh requi	rements, aware of its



	19:11  File attached  Confidential	Individual France	responsibilities in protecting health and the environment. But as the elimination of theses substances requires a tremendous R&D and manufacturing effort. So we cannot identify and qualify replacement chemical products that contain this chromate and other chromates in the timescale likely to be imposed by the authorisation process.
605	2011/09/07 18:09 File attached	Individual France	The use of chromium trioxide in surface treatment doesn't meet the criteria of priorisation Very low exposition for automatic process No consumers exposure with plating chromium, plastics stripping Environnemental exposition controled regulations
554	2011/08/24 14:15	WWF European Policy Office  International NGO Belgium	WWF supports the prioritisation for inclusion in Annex XIV due to its high volume and significant potential for worker exposure.
532	2011/08/17 13:49	MTU Aero Engines GmbH Company Germany	Die gefährlichen Eigenschaften der betroffenen Chromate sind uns als Luftfahrtun-ternehmen wohl bekannt. Es ist auch unbestritten, dass der Einsatz und die Verwen-dung diese Stoffe nur unter sicheren Bedingungen möglich ist. Hier ist das Gesund-heitsrisiko für die Betroffenen auf das notwendige Minimum zu reduzieren. Entspre-chende Bestrebungen und Verpflichtungen zur Stoffminimierung und Substitution sind in Deutschland durch die nationale Gesetzgebung vorgegeben. An diesen The-men wird kontinuierlich gearbeitet. Ein gänzlicher Verzicht auf diese Stoffe und die damit verbundenen Verfahren ist aus heutiger Sicht erst mit der Validierung ungefährlicher Ersatzverfahren möglich. Die dort erzeugten Ergebnisse bedürfen dann noch die Anerkennung und Zulassung aller nationalen und internationalen Luftfahrtbehörden.



524	2011/08/08 15:18	Company United Kingdom	
520	2011/08/08 10:37 File attached	Industry or trade association United Kingdom	Tata Steel Europe is a major downstream user of sodium dichromate as it is used across our downstream operations in a number of processes. We do recognise that sodium dichromate is a substance of very high concern but our processes present minimal risk of exposure to humans or the environment.  We are submitting a pre-letter to make you aware that we are interested and committed to this process and we will follow this up with further information towards the end of the consultation period.
515	2011/07/29 18:04 File attached	APEAL  Industry or trade association Belgium	1. Background  Manufacture of packaging steel requires the use of two chromate substances: sodium dichromate and chromium trioxide. These two substances are used to passivate tinplate (ETP) and manufacture electro chemically coated packaging steel (ECCS, also called Tin Free Steel (TFS)). For both sodium dichromate and chromium trioxide a draft recommendation for prioritisation was published on June 15th 2011, which is the start of the open consultation. To this open consultation, APEAL (the Association of European Producers of Steel for Packaging) being down stream users of these substances, would like to submit additional information.  The members of APEAL are ArcelorMittal, Tata Steel Packaging, ThyssenKrupp (Rasselstein), and US Steel Kosice and produce about 95 % of the European market demand for steel for packaging (approximately 4 Million tonnes per year).  We are a responsible industry well aware of the risks associated with the use of chromate substances. We have worked for more than 20 years on reduction of the risk of chromate uses and on research to find suitable alternatives for the use application APEAL covers. These research activities have been shared among the members of APEAL and discussed with other international manufacturers of steel for packaging.  APEAL's goals for submission under the Public Comments period are:



- 1. ensure Prioritisation that is fact based and therefore, we would like to request the CSR's of these substances being fully recognised and provide additional measured and factual data that would allow to complement the priority assessment,
- 2. demonstrate, based on these measured and factual data (exposure, use, complex substitution), that the priority score for sodium dichromate and chromium trioxide to be considerably lower than presently reported,
- 3. demonstrate based on results so far on research on the substitution of chromates for the passivation of tinplate, that more time is needed than currently provided in the proposed sunset date in the draft recommendation.
- 4. indicate, based on results so far on research on the substitution of chromates for the manufacture of Electro Chemically Coated Steel (ECCS), that APEAL accepts that most likely an application for authorisation needs to be submitted.

Additionally, we will be in a position to deliver considerable data to substantiate our claims. APEAL is currently heavily involved in the process of gathering measured results, factual data and opinions to support a structured, balanced and proportional Authorisation process. The results of this activity will be submitted early September.

### 2. General comments

#### 2.1 Overview

In order to achieve the goals listed in the previous paragraph, we include an outline of the additional information that we are currently collecting:

1. data on exposure to workers

(exposure to workers is the most relevant factor, which can be assessed as low)

2. analysis of alternatives,

(Substitution of chromates is a complex process which requires additional time to ensure the substitution to a sustainable alternative that does not have a negative impact on steel for packaging)

3. data on the use of chromates for the manufacture of steel for packaging.

## 2.2 Exposure

Measurements of exposure levels are below 10 microgram/m3 as stated in the Chemical Safety Reports that were used for the Registration of both Sodium Dichromate and Chromiumtrioxide. These exposure levels can be assessed as low. Furthermore, in nearly all European manufacturing lines\*) exposure data confirm that the stricter US legal limit of 5 microgram/m3 is not exceeded. In general at these low levels only total chromium can be measured, which results in an overestimation of the exposure level to toxic species. Additionally it should be noted that



			practices in our industry are such that when workers enter areas with these exposure levels maximum protective clothing (PPE) is used resulting in far lower actual exposure to the workers.  *) with the exception of some lines where the measurement methodology only permits to a confirmation to 10 microgram/m3  2.3 Conclusion  As a consequence of this APEAL does not agree with the assessment of the exposure level in the draft recommendation and therefore are of the opinion that a significantly lower prioritisation score is applicable and justified.  (APEAL will suplly information on exposure in the additional documentation later during the Public Consultation period)
512	2011/07/28 17:07	Revill Industrial Finishes	
		Company United Kingdom	
505	2011/07/28 16:53	Southwest Metal Finishing Ltd	
		Company United Kingdom	



477	2011/07/06 16:17 File attached Confidential	Company United Kingdom	As our main use of this substance in the Aerospace industry is for FPL etch prior to structural adhesive bonding of aircraft components we have concerns about it's inclusion on Annex XIV for flight safety reasons. The Aerospace industry relies on it's protective properties and as such it has a direct bearing on Air Safety. The safety critical performance criterion that needs to be met for the Aerospace industry is provided with sodium dichromate. Currently there is no alternative. All potential alternatives contain an already listed Annex XIV material.
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# II - TRANSITIONAL ARRANGEMENTS. COMMENTS ON THE PROPOSED DATES:

#	Date	Submitted by	Comment
	(Attachment	(name,	
	provided)	Organisation/	
		MSCA)	



1847	2011/09/15 00:06 File attached	Aerospace Industries Association of America	See attached document
		Industry or trade association United States	
1837	2011/09/14 22:42 File attached	ArcelorMittal  Company Luxembourg	cfr. ArcelorMittal answer to the consultation on Chromium Trioxide (EC Number 215-607-8) and letter attached.
1824	2011/09/14 21:29 File attached Confidential	Galion  Company France	We need an extension of the deadlines; please see the enclosed letter.



1822	2011/09/14 21:27	Galion	We need an extension of the deadlines; please see the enclosed letter.
	File attached Confidential	Company France	
1772	2011/09/14 19:19 File attached	ADR  Company France	We need an extension of the deadlines; please see the enclosed letter
1752	2011/09/14 18:52 File attached	Company France	We need an extension of the deadlines; please see the enclosed letter



1741	2011/09/14 18:33 File attached	Company France	We need an extension of the deadlines; please see the enclosed letter
1727	2011/09/14 18:13	Indestructible Paint Ltd.  Company United Kingdom	The aerospace industry requests that sodium dichromate be exempt from Annex XIV of REACH for aerospace applications. If this is unacceptable to ECHA, the aerospace industry requests the longest possible timescale to identify, test and qualify alternative substances capable of meeting the demanding corrosion protection requirements of the industry.  If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 3 years later, in January 2016. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2014 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is essential for all concerned.  Another major reason for requesting an extension to the "Sunset date" is the complexity of the supply chain that is typically present within the aerospace industry. It has been estimated that there are up to 8 levels in the supply chain and complex sub-tier supply bases, which leads to the possibility of hundreds of companies being involved. All of these would have to be involved and managing this is a key requirement for the authorisation process. The time and effort involved would be substantial.  One additional point needs to be considered: the tonnage of sodium dichromate which is used by the Aerospace & Defence Industry (total, including all its supply-chain) is very low (greatly below 1t/year for each entity, and an estimate of < 20t/year for all our industry), so low that the consortium in charge of sodium dichromate registration dossier did not present a dossier for surface treatment. Our industry has been obliged to negotiate directly with its suppliers so that a registration dossier is deposited. A consequence of this situation is that no upstream supplier will push the Authorisation process, and our industry



			consortium, together with its surface treatment suppliers (>500), in order to prepare applications for authorisation. In particular we expect a very long and complex convergence process on substitution readiness assessment, amplified by the great number of actors, with different level of stakes. In order to organize this process we need an application date increased by 4 years compared to the average 2.5 years observed in the first Annex XIV issue.
1695	2011/09/14 17:30 File attached Confidential	Company Germany	We support the position of the Aerospace and Defence Industries of Europe (ASD)
1683	2011/09/14 17:16 File attached	sabena technics	we need an extension of the deadline (30 months instead of 18 months as mentionned in the recommndation). Please see the enclosed letter
		Company France	



1660	2011/09/14 16:33 File attached	Company France	We need an extension of the deadlines; please see the enclosed letter
1646	2011/09/14 16:10 File attached Confidential	Company United Kingdom	We support the position of the Aerospace and Defence Industries of Europe (ASD)



1601	2011/09/14 15:04 File attached Confidential	Company United Kingdom	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1575	2011/09/14 14:41 File attached	A.M.P.E.R.E. INDUSTRIE Company France	We need an extension of the deadlines (at least 30 months instead of 18 months as mentioned in the recommendation). Please see the enclosed letter.
1572	2011/09/14 14:38	The Boeing Company Company United States	Due to the safety critical performance criteria that need to be met by any possible future alternatives, it is essential that prioritization be deferred to allow time for alternative solutions to become fully tested, qualified and implemented. This would allow companies to focus their efforts on replacements rather than authorization strategies.



1370	2011/09/14 08:16	Goodrich Corporation Company United States	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1366	2011/09/14 08:15	Rohr Aero Services inc Company United States	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1368	2011/09/14 08:15	Goodrich Corporation Company United States	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.



1369	2011/09/14 08:15	Rohr Inc  Company United States	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1371	2011/09/14 08:15	Goodrich Krosno Ltd Company Poland	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1372	2011/09/14 08:15	Goodrich Aerospace Canada Itd Company Canada	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.



1364	2011/09/14 08:14	Rohr Aero Services Ltd  Company United Kingdom	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1365	2011/09/14 08:14	Goodrich Aerospace Europe GmbH Company Germany	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1367	2011/09/14 08:14	Goodrich Aerospace Services Europe SAS Company France	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.



1354	2011/09/14 07:57	Ithaco Space Systems Inc Company United States	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1357	2011/09/14 07:57	Cloud Cap Technologies Company United States	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1350	2011/09/14 07:56	Goodrich Corporation Company United States	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.



1351	2011/09/14 07:56	Goodrich Control Systems Company United Kingdom	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1353	2011/09/14 07:56	Goodrich TEACO Aeronautical Systems (Xiamen) Company Ltd	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
		Company China	
1355	2011/09/14 07:56	Recon/Optical Inc Company United States	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.



1347	2011/09/14 07:55	Goodrich Corporation	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
		Company United Arab Emirates	
1349	2011/09/14 07:55	Goodrich Control Systems Pte Ltd	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
		Company Australia	



1352	2011/09/14 07:55	Goodrich Aerospace Services SAS Company France	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1356	2011/09/14 07:55	Goodrich Control Systems Pte Ltd Company Singapore	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1348	2011/09/14 07:54	Goodrich Corporation Company United States	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.



1343	2011/09/14 07:36	TAEC Aerospace Company United States	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1344	2011/09/14 07:36	Rosemount Aerospace Inc Company United States	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1345	2011/09/14 07:36	Goodrich Corporation Company United States	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.



1338	2011/09/14 07:35	Rosemount Aerospace SARL Company France	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1339	2011/09/14 07:35	Goodrich Control Systems Limited Company France	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.



1341	2011/09/14 07:35	Simmonds Precision Products Inc  Company United States	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1342	2011/09/14 07:35	Atlantic Inertial Systems  Company United States	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1346	2011/09/14 07:35	Rosemount Aerospace Inc Company China	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.



1336	2011/09/14 07:34	Atlantic Inertial Systems Itd  Company United Kingdom	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1337	2011/09/14 07:34	Goodrich Aerospace Pte Ltd  Company Singapore	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1340	2011/09/14 07:34	Rosemount Aerospace GmbH Company Germany	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1335	2011/09/14 07:16	Microtecnica Srl	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However,



		Company United Kingdom	applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1334	2011/09/14 07:15	Crompton Technology Group Company United Kingdom	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1330	2011/09/14 07:14	Microtecnica srl  Company Italy	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.



1332	2011/09/14 07:14	Company France	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1333	2011/09/14 07:14	PT Goodrich Pindad Aeronautical Systems Indonesia	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1327	2011/09/14 07:13	Goodrich Corporation Company Japan	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.



1328	2011/09/14 07:13	Goodrich Corporation Company United States	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1329	2011/09/14 07:13	Goodrich Corporation Company Mexico	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1331	2011/09/14 07:13	Goodrich Actuation Systems Company United Kingdom	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.



1322	2011/09/14 06:53	Goodrich Control Systems Itd  Company United Kingdom	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1323	2011/09/14 06:53	Goodrich Control Systems Itd Company United States	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1324	2011/09/14 06:53	Goodrich Pump and Engine control systems Inc Company United States	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.



1325	2011/09/14 06:53	Goodrich Control Systems Itd Company Canada	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1326	2011/09/14 06:53	Goodrich Control Systems Company Germany	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1321	2011/09/14 06:52	Goodrich corporation Company United States	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.



1320	2011/09/14 06:37	Goodrich Corporation Company United States	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is necessary to assure that the rigorous safety and airworthiness criteria can be met with alternative substances.
1232	2011/09/14 01:08	KLM Engineering & Maintenance  Company Netherlands	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years would be beneficial for all concerned.  Another major reason for requesting an extension to the "Sunset date" is the complexity of the supply chain that is typically present within the aerospace industry. It has been estimated that there are up to 8 levels in the supply chain and complex sub-tier supply bases, which leads to the possibility of hundreds of companies being involved. All of these would have to be involved and managing this is a key requirement for the authorisation process. The time and effort involved would be substantial.  One additional point needs to be considered: the tonnage of sodium dichromate which is used by the Aerospace & Defence Industry (total, including all its supply-chain) is very low (greatly below 1t/year for each entity, and an estimate of < 20t/year for all our industry), so low that the consortium in charge of sodium dichromate registration dossier did not present a dossier for surface treatment. Our industry has been obliged to negotiate directly with its suppliers so that a registration dossier is deposited. A consequence of this situation is that no upstream supplier will push the Authorisation process, and our industry, as downstream user will have to establish a consortium, together with its surface treatment suppliers (>500), in order to prepare applications for authorisation. The vast majority of our companies have not presented any registration dossiers and we therefore have not the same experience as the chemical industry has gained during the registr



			convergence process on substitution readiness assessment, amplified by the great number of actors, with different level of stakes. In order to organize this process we need an application date increased by 2 years compared to the average 2.5 years observed in the first Annex XIV issue.
1184	2011/09/13 19:43 File attached	Company France	Wee need an extension of the deadlines; please see enclosed letter
1135	2011/09/13 18:26	Agoria  Industry or trade association Belgium	The timing of the deadline for exemptions will be extremely ambitious for different companies given that there is at this moment still a need for a better cooperation between industry partners within the chain. This is mainly due to on the one side a lack of real producers of these compounds within Europe and on the other side the broad range of different applications, sectors for which it will be a challenge to work out together the authorization dossier. An extension of the deadline would help to bring together these different industry sectors in order to work on a common authorization dossier and thus improving the quality of the dossier as well as lowering the administrative burden for the evaluation.  We therefore ask for an extension of the deadline for the submission of the authorization dossiers with 12 months and consequently also the extension of the sunset date by 12 months.
1132	2011/09/13 18:24 File attached Confidential	International NGO United Kingdom	Comments on Proposed Dates  The aerospace industry requests that sodium dichromate be exempt from Annex XIV of REACH for aerospace applications. If this is unacceptable to ECHA, the aerospace industry requests the longest possible timescale to identify, test and qualify alternative substances capable of meeting the demanding corrosion protection requirements of the industry.  If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 3 years later, in January 2016. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2014 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is essential for all



			concerned.  Another major reason for requesting an extension to the "Sunset date" is the complexity of the supply chain that is typically present within the aerospace industry. It has been estimated that there are up to 8 levels in the supply chain and complex sub-tier supply bases, which leads to the possibility of hundreds of companies being involved. All of these would have to be involved and managing this is a key requirement for the authorisation process. The time and effort involved would be substantial.  One additional point needs to be considered: the tonnage of sodium dichromate which is used by the Aerospace & Defence Industry (total, including all its supply-chain) is very low (greatly below 1t/year for each entity, and an estimate of < 20t/year for all our industry), so low that the consortium in charge of sodium dichromate registration dossier did not present a dossier for surface treatment. Our industry has been obliged to negotiate directly with its suppliers so that a registration dossier is deposited. A consequence of this situation is that no upstream supplier will push the Authorisation process, and our industry, as downstream user will have to establish a consortium, together with its surface treatment suppliers (>500), in order to prepare applications for authorisation. In particular we expect a very long and complex convergence process on substitution readiness assessment, amplified by the great number of actors, with different level of stakes. In order to organize this process we need an application date increased by 4 years compared to the average 2.5 years observed in the first Annex XIV issue.
1362	2011/09/13 18:24 File attached Confidential	International NGO United Kingdom	Comments on Proposed Dates The aerospace industry requests that sodium dichromate be exempt from Annex XIV of REACH for aerospace applications. If this is unacceptable to ECHA, the aerospace industry requests the longest possible timescale to identify, test and qualify alternative substances capable of meeting the demanding corrosion protection requirements of the industry.  If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 3 years later, in January 2016. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2014 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is essential for all concerned.  Another major reason for requesting an extension to the "Sunset date" is the complexity of the supply chain that is typically present within the aerospace industry. It has been estimated that there are up to 8 levels in the supply chain and complex sub-tier supply bases, which leads to



			the possibility of hundreds of companies being involved. All of these would have to be involved and managing this is a key requirement for the authorisation process. The time and effort involved would be substantial.  One additional point needs to be considered: the tonnage of sodium dichromate which is used by the Aerospace & Defence Industry (total, including all its supply-chain) is very low (greatly below 1t/year for each entity, and an estimate of < 20t/year for all our industry), so low that the consortium in charge of sodium dichromate registration dossier did not present a dossier for surface treatment. Our industry has been obliged to negotiate directly with its suppliers so that a registration dossier is deposited. A consequence of this situation is that no upstream supplier will push the Authorisation process, and our industry, as downstream user will have to establish a consortium, together with its surface treatment suppliers (>500), in order to prepare applications for authorisation. In particular we expect a very long and complex convergence process on substitution readiness assessment, amplified by the great number of actors, with different level of stakes. In order to organize this process we need an application date increased by 4 years compared to the average 2.5 years observed in the first Annex XIV issue.
1113	2011/09/13 18:07 File attached	L'ELECTROLYS E Company France	We need an extension of the deadlines; please see the enclosed letter



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1097	2011/09/13 17:53	AgustaWestlan d Ltd  Company United Kingdom	The aerospace industry requests that sodium dichromate be exempt from Annex XIV of REACH for aerospace applications. If this is unacceptable to ECHA, the aerospace industry requests the longest possible timescale to identify, test and qualify alternative substances capable of meeting the demanding corrosion protection requirements of the industry. A potential means of addressing safety / reliability concerns with a replacement substance is to introduce corrosion inspections. But many component areas are enclosed after manufacture and it is impracticable to introduce inspections without the introduction of such intrusive inspection processes which would of themselves add safety risk.  If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 3 years later, in January 2016. However, applications for Authorisation for the continued use of sodium dichromate would have to be
			completed and submitted 18 months before the "Sunset date"; July 2014 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is essential for all concerned.  Another major reason for requesting an extension to the "Sunset date" is the complexity of the supply chain that is typically present within the aerospace industry. It has been estimated that there are up to 8 levels in the supply chain and complex sub-tier supply bases, which leads to the possibility of hundreds of companies being involved. All of these would have to be involved and managing this is a key requirement for the authorisation process. The time and effort involved would be substantial.
			One additional point needs to be considered: the tonnage of sodium dichromate which is used by the Aerospace & Defence Industry (total, including all its supply-chain) is very low (greatly below 1t/year for each entity, and an estimate of < 20t/year for all our industry), so low that the consortium in charge of sodium dichromate registration dossier did not present a dossier for surface treatment. Our industry has been obliged to negotiate directly with its suppliers so that a registration dossier is deposited. A consequence of this situation is that no upstream supplier will push the Authorisation process, and our industry, as downstream user will have to establish a consortium, together with its surface treatment suppliers (>500), in order to prepare applications for authorisation. In particular we expect a very long and complex convergence process on substitution readiness assessment, amplified by the great number of actors, with different level of stakes. In order to organize this process we need an application date increased by 4 years compared to the average 2.5 years observed in the first Annex XIV issue.



1079	2011/09/13 17:23 File attached	Atelier Industriel de l'aéronautique de Clermont-Fd	We need an extension of the deadlines; please see the enclosed letter.
		Company France	
1078	2011/09/13 17:20 File attached	L'ELECTROLYS E	We need an extension of the deadlines; please see the enclosed letter
		Company France	
1065	2011/09/13 17:06 File attached	Company France	The aerospace industry requests that sodium dichromate be exempt from Annex XIV of REACH for aerospace applications. If this is unacceptable to ECHA, the aerospace industry requests the longest possible timescale to identify, test and qualify alternative substances capable of meeting the demanding corrosion protection requirements of the industry.  If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 3 years later, in January 2016. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2014 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is essential for all concerned.  Another major reason for requesting an extension to the "Sunset date" is the complexity of the supply chain that is typically present within the aerospace industry. It has been estimated that there are up to 8 levels in the supply chain and complex sub-tier supply bases, which leads to the possibility of hundreds of companies being involved. All of these would have to be involved and managing this is a key requirement for the authorisation process. The time and effort



			involved would be substantial.  One additional point needs to be considered: the tonnage of sodium dichromate which is used by the Aerospace & Defence Industry (total, including all its supply-chain) is very low (greatly below 1t/year for each entity, and an estimate of < 20t/year for all our industry), so low that the consortium in charge of sodium dichromate registration dossier did not present a dossier for surface treatment. Our industry has been obliged to negotiate directly with its suppliers so that a registration dossier is deposited. A consequence of this situation is that no upstream supplier will push the Authorisation process, and our industry, as downstream user will have to establish a consortium, together with its surface treatment suppliers (>500), in order to prepare applications for authorisation. In particular we expect a very long and complex convergence process on substitution readiness assessment, amplified by the great number of actors, with different level of stakes. In order to organize this process we need an application date increased by 4 years compared to the average 2.5 years observed in the first Annex XIV issue.
1053	2011/09/13 16:55 File attached	UITS  Trade Union France	We need an extension of the deadlines (30 months instead of 18 months as mentioned in the recommendation). Please see the enclosed letter.
1034	2011/09/13 16:32	Company Germany	The aerospace industry requests that sodium dichromate be exempt from Annex XIV of REACH for aerospace applications. If this is unacceptable to ECHA, the aerospace industry requests the longest possible timescale to identify, test and qualify alternative substances capable of meeting the demanding corrosion protection requirements of the industry. If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 3 years later, in January 2016. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2014 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is essential for all concerned.  Another major reason for requesting an extension to the "Sunset date" is the complexity of the supply chain that is typically present within the aerospace industry. It has been estimated that there are up to 8 levels in the supply chain and complex sub-tier supply bases, which leads to the possibility of hundreds of companies being involved. All of these would have to be involved



1016	2011/09/13 15:55	ETNA Industrie	and managing this is a key requirement for the authorisation process. The time and effort involved would be substantial.  One additional point needs to be considered: the tonnage of sodium dichromate which is used by the Aerospace & Defence Industry (total, including all its supply-chain) is very low (greatly below 1t/year for each entity, and an estimate of < 20t/year for all our industry), so low that the consortium in charge of sodium dichromate registration dossier did not present a dossier for surface treatment. Our industry has been obliged to negotiate directly with its suppliers so that a registration dossier is deposited. A consequence of this situation is that no upstream supplier will push the Authorisation process, and our industry, as downstream user will have to establish a consortium, together with its surface treatment suppliers (>500), in order to prepare applications for authorisation. In particular we expect a very long and complex convergence process on substitution readiness assessment, amplified by the great number of actors, with different level of stakes. In order to organize this process we need an application date increased by 4 years compared to the average 2.5 years observed in the first Annex XIV issue.  We need an extension of the deadlines; please see the enclosed letter
		Company France	
1013	2011/09/13 15:51 File attached	Aerospace and Defence Industries of Europe  Industry or trade association Belgium	The aerospace industry requests that sodium dichromate be exempt from Annex XIV of REACH for aerospace applications. If this is unacceptable to ECHA, the aerospace industry requests the longest possible timescale to identify, test and qualify alternative substances capable of meeting the demanding corrosion protection requirements of the industry. If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 3 years later, in January 2016. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2014 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is essential for all concerned.  Another major reason for requesting an extension to the "Sunset date" is the complexity of the



			supply chain that is typically present within the aerospace industry. It has been estimated that there are up to 8 levels in the supply chain and complex sub-tier supply bases, which leads to the possibility of hundreds of companies being involved. All of these would have to be involved and managing this is a key requirement for the authorisation process. The time and effort involved would be substantial.  One additional point needs to be considered: the tonnage of sodium dichromate which is used by the Aerospace & Defence Industry (total, including all its supply-chain) is very low (greatly below 1t/year for each entity, and an estimate of < 20t/year for all our industry), so low that the consortium in charge of sodium dichromate registration dossier did not present a dossier for surface treatment. Our industry has been obliged to negotiate directly with its suppliers so that a registration dossier is deposited. A consequence of this situation is that no upstream supplier will push the Authorisation process, and our industry, as downstream user will have to establish a consortium, together with its surface treatment suppliers (>500), in order to prepare applications for authorisation. In particular we expect a very long and complex convergence process on substitution readiness assessment, amplified by the great number of actors, with different level of stakes. In order to organize this process we need an application date increased by 4 years compared to the average 2.5 years observed in the first Annex XIV issue.
990	2011/09/13 14:59	Sweden  MemberState	We agree with the proposed dates.
		Sweden	



923	2011/09/13	Lufthansa	If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in
923			
	12:58	Technik	January 2013, with a likely "Sunset date" of 4 years later, in January 2017. However,
		Aktiengesellsch	applications for Authorisation for the continued use of sodium dichromate would have to be
		aft	completed and submitted 18 months before the "Sunset date"; July 2015 by the latest. This
			represents insufficient time to complete the necessary R&D programmes required to produce
			qualified alternatives to sodium dichromate. An extension of several years would be beneficial for
			all concerned.
		Company	Another major reason for requesting an extension to the "Sunset date" is the complexity of the
		Germany	supply chain that is typically present within the aerospace industry. It has been estimated that
		,	there are up to 8 levels in the supply chain and complex sub-tier supply bases, which leads to
			the possibility of hundreds of companies being involved. All of these would have to be involved
			and managing this is a key requirement for the authorisation process. The time and effort
			involved would be substantial.
			One additional point needs to be considered: the tonnage of sodium dichromate which is used by
			the Aerospace & Defence Industry (total, including all its supply-chain) is very low (greatly below
			1t/year for each entity, and an estimate of < 20t/year for all our industry), so low that the
			consortium in charge of sodium dichromate registration dossier did not present a dossier for
			surface treatment. Our industry has been obliged to negotiate directly with its suppliers so that a
			registration dossier is deposited. A consequence of this situation is that no upstream supplier will
			push the Authorisation process, and our industry, as downstream user will have to establish a
			consortium, together with its surface treatment suppliers (>500), in order to prepare
			applications for authorisation. The vast majority of our companies have not presented any
			registration dossiers and we therefore have not the same experience as the chemical industry
			has gained during the registration phase. In particular we expect a very long and complex
			convergence process on substitution readiness assessment, amplified by the great number of
			actors, with different level of stakes. In order to organize this process we need an application
			date increased by 2 years compared to the average 2.5 years observed in the first Annex XIV
			, , , , , , , , , , , , , , , , , , , ,
			issue.



906	2011/09/13 12:03 File attached	AIA-CP  Company France	We need an extension of the deadlines; please see the enclosed letter
898	2011/09/13 11:52	European Aviation Safety Agency European Institution Germany	This chemical substance is used in manufacturing and or maintenance of aviation products and parts. It might not be easy to find an alternative substance that would have the same attributes and or performance and the banning of such substance may therefore have a negative impact on aviation safety. We invite the ECHA to consider a possible exemption for the use in aviation applications or an appropriate transition period. The European Aviation Safety Agency is willing to contribute to a discussion on such exemption or transition.
854	2011/09/12 19:39 File attached	DALIC  Company France	We need an extension of the deadlines (48 months instead of 18 months as mentioned in the recommendation). Please see the enclosed letter.
831	2011/09/12 17:55 File attached	Company United Kingdom	The aerospace industry requests that sodium dichromate be exempt from Annex XIV of REACH for aerospace applications. If this is unacceptable to ECHA, the aerospace industry requests the longest possible timescale to identify, test and qualify alternative substances capable of meeting the demanding corrosion protection requirements of the industry. If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 3 years later, in January 2016. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2014 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce



			qualified alternatives to sodium dichromate. An extension of several years is essential for all concerned.  Another major reason for requesting an extension to the "Sunset date" is the complexity of the supply chain that is typically present within the aerospace industry. It has been estimated that there are up to 8 levels in the supply chain and complex sub-tier supply bases, which leads to the possibility of hundreds of companies being involved. All of these would have to be involved and managing this is a key requirement for the authorisation process. The time and effort involved would be substantial.  One additional point needs to be considered: the tonnage of sodium dichromate which is used by the Aerospace & Defence Industry (total, including all its supply-chain) is very low (greatly below 1t/year for each entity, and an estimate of < 20t/year for all our industry), so low that the consortium in charge of sodium dichromate registration dossier did not present a dossier for surface treatment. Our industry has been obliged to negotiate directly with its suppliers so that a registration dossier is deposited. A consequence of this situation is that no upstream supplier will push the Authorisation process, and our industry, as downstream user will have to establish a consortium, together with its surface treatment suppliers (>500), in order to prepare applications for authorisation. In particular we expect a very long and complex convergence process on substitution readiness assessment, amplified by the great number of actors, with different level of stakes. In order to organize this process we need an application date increased by 4 years compared to the average 2.5 years observed in the first Annex XIV issue.
809	2011/09/12 16:43 File attached	France	We need an extension of the deadlines; please see the joined letter.



711	2011/09/09 19:56 File attached	APEAL	The following scenarios with possible sunset dates and their implications on the industry are possible:  1. Current timing of the sunset date, no authorisation - leading to rushing to market with new Chromate-free passivation and risking technical failures and heavy imports of chromate
	Confidential	Industry or trade association Belgium	material from outside of EU.  2. Current timing of the sunset date, authorisation and soon after substitution - leading to additional cost for the industry and diverting efforts from product development towards authorisation resulting in delayed substitution implementation.  3. Delayed timing of the sunset date- leading to new decision point for the industry to implement Chromate-free passivation. If process development is ready by then, no authorisation needed and substitution can be implemented as planned. No diversion of the efforts on the resource demanding substitution planning.  Because of the time scale developed around the development of an alternative to chromium VI passivation (refer to III Comments - General comments), and as there remain several uncertainties to the final decision, our proposal would be to postpone the application date and therefore the sunset date to align better with the Chromate substitution program planning. This would ensure that the industry is left with sufficient time to finalize the proper testing and ensure maximum safety of the final consumers with an appropriate alternative.
698	2011/09/09 16:21 File attached Confidential	Company Netherlands	



608	2011/09/07 19:11 File attached Confidential	Individual France	We ask ECHA for:  □ Delaying the inclusion of chromates in the Annex XIV,  □ Postponing the application dates and the sunset dates,  □ Accepting an exemption from Annex XIV obligations for legacy programs.
605	2011/09/07 18:09 File attached	Individual France	We need an extension of the deadlines (30 months instead of 18 months as mentioned in the recommandation). Please see the enclosed letter
554	2011/08/24 14:15	WWF European Policy Office  International NGO Belgium	The timelines foreseen for transitional arrangements should be shortened to an application date of 12 months (sun set date 30 months) after the date of inclusion in Annex XIV.



532	2011/08/17 13:49	MTU Aero Engines GmbH Company Germany	Aufgrund der komplexen Zulassungsverfahren in der Luftfahrtindustrie sehen wir die-se Fristen als zu kurz an und schlagen eine Verlängerung um bis zu 5 Jahren bzw. eine Verlängerung bis zum Vorliegen weiterer fundierter Daten und Untersuchungen vor. Ziel sollte es selbstverständlich sein, weiter zu versuchen diesen Stoff bzw. die eingesetzten Verfahren zu substituieren.
520	2011/08/08 10:37 File attached	Industry or trade association United Kingdom	We would like to ask for a serious consideration on the extension of any possible proposed application and sunset dates. So that if sodium dichromate were added to Annex XIV there is sufficient time to carry out proper work on substitution and or and application for authorisation for our uses.
515	2011/07/29 18:04 File attached	APEAL  Industry or trade association Belgium	Based on our data of our use and other uses our conservative estimate of the total volume of sodium dichromate use is below 500 tonnes per year which is far below the use indicated in the draft recommendation (1000 - 10 000 ton).  The results of the research on substitution of chromates for passivation are promising. These results however, clearly demonstrate the complexity of the replacement, which consequently requires more time to ensure we find a sustainable alternative that does not have a negative impact on the current robust performance of steel for packaging.  For the manufacture of steel for packaging, chromates have four functional properties:  - prevention of tin oxide growth;  - prevention of sulphur staining;  - adhesion to tin oxide surface;  - adhesion to (food) can lacquer.  In the currently most viable alternative, these functional properties are provided by different substances (that are titanium, zirconium, phosphates and polymer based), which makes the testing and optimisation complex.



			Furthermore, the substitution to an alternative is a technical development that requires extensive qualification trials with the downstream users (can makers) given their use for e.g. food/drink packaging. Moreover, the experiments involve product durability test which require several years of qualification.  As a consequence of this technical complexity and time consuming substitution trials, the substitution is not easy to predict and therefore, APEAL will formulate a proposal to request for more time to investigate, implement and optimise our alternative and ask for a later deadline for the Application for Authorisation. Postponing this deadline allows for avoiding non cost-effective authorisation application for a short duration.  3.2 Conclusion for sodium dichromate  As a consequence of the measured exposure levels, the analysis of alternatives and the total volume of sodium dichromate use for non-intermediate use, APEAL has proof that indicates a lower prioritisation score.  (APEAL will supply information of the investigated alternatives, exposure and the volume of the sodium dichromate used for non-intermediate use later during the Public Consultation period)
477	2011/07/06 16:17 File attached Confidential	Company United Kingdom	5 years would simply not be sufficent to allow for suitable safe alternatives to be available. 8 to 10 years would be more realistic provided the developments around non chromated adhesive primers supports this process.



## III - COMMENTS ON USES THAT SHOULD BE EXEMPTED FROM AUTHORISATION, INCLUDING REASONS FOR THAT:

#	Date (Attachment provided)	Submitted by (name, Organisation/MSCA)	Comment
1847	2011/09/15 00:06 File attached	Aerospace Industries Association of America	Specific Aerospace industry applications
		Industry or trade association United States	
1837	2011/09/14 22:42 File attached	ArcelorMittal  Company Luxembourg	cfr. ArcelorMittal answer to the consultation on Chromium Trioxide (EC Number 215-607-8) and letter attached.
1824	2011/09/14 21:29	Galion	Automated processes and enclosed systems in surface treatment should be exempted, as well as activities covered by the IED directive; please see the enclosed letter.



	File attached Confidential	Company France	
1822	2011/09/14 21:27 File attached Confidential	Galion  Company France	Automated processes and enclosed systems in surface treatment should be exempted, as well as activities covered by the IED directive; please see the enclosed letter.
1795	2011/09/14 20:03	European Federation of Pharmaceutical industries & Associations	Use in the manufacture of diagnostic tests Sodium dichromate is used as a "sensitizer" in the production of multi-use screen cylinders that are used to manufacture disposable glucose test strips. The "sensitizer" is a photosensitive chemical used for treating photographic screen printing stencil films or emulsions and is essential to the production of the screen cylinders. Once the cylinders are made, they can be used repeatedly to manufacture the disposable test strips that work with the diabetes monitor to "read" the user's blood glucose levels. The test strips are the 'consumable' from home diabetes testing monitors that enable diabetic patients to accurately monitor their blood glucose levels,
		International Organisation Belgium	managing the illness hour-to-hour or day-to-day. Modern screen printing technology allows the test strips to be manufactured in a highly-controlled, high-speed, efficient process such that hundreds of millions of strips per year can be provided to diabetics in EU, US and other regions, for home use. Without the ability to make accurate, long-lasting screens to support this complex manufacturing process, companies would be unable to support the diabetes monitoring instruments that are in the marketplace today.  An exemption for the use of sodium dichromate as "sensitizer" for the production of screen cylinders in EU that support home diabetes test strip manufacturing is requested. We will



			continue to work with the current supplier to identify feasible alternatives, however, at this point, no alternate materials or technology have been identified. EFPIA Recommendation  In the light of the above considerations, EFPIA Recommends that sodium dichromate be exempt from authorisation for any use in the research, development, manufacture or analytical control diagnostic tests and their ingredients
1773	2011/09/14 19:21	Association of the British Pharmaceutical Industry  International Organisation United Kingdom	General Comments: ABPI has noted with interest the call by ECHA of June 2011 for comments on proposals to include a number of new substances, including sodium dichromate, in Annex XIV of the REACH Regulation as substances of very high concern (SVHCs) which would require authorisation for their use.  The details relating to sodium dichromate and its uses in preparing diagnostic tests are set out below and ABPI asks that, if it is to be included in Annex XIV, it be exempted from the necessity for authorisation for use in research, development, manufacture or analytical control of diagnostic tests and their ingredients Use in the man.ufacture of diagnostic tests: Sodium dichromate is used as a "sensitizer" in the production of multi-use screen cylinders that are used to manufacture disposable glucose test strips. The "sensitizer" is a photosensitive chemical used for treating photographic screen printing stencil films or emulsions and is essential to the production of the screen cylinders. Once the cylinders are made, they can be used repeatedly to manufacture the disposable test strips that work with the diabetes monitor to "read" the user's blood glucose levels. The test strips are the 'consumable' from home diabetes testing monitors that enable diabetic patients to accurately monitor their blood glucose levels, managing the illness hour-to-hour or day-to-day. Modern screen printing technology allows the test strips to be manufactured in a highly-controlled, high-speed, efficient process such that hundreds of millions of strips per year can be provided to diabetics in EU, US and other regions, for home use. Without the ability to make accurate, long-lasting screens to support this complex manufacturing process, companies would be unable to support the diabetes monitoring



			instruments that are in the marketplace today.  An exemption for the use of sodium dichromate as "sensitizer" for the production of screen cylinders in EU that support home diabetes test strip manufacturing is requested. The manufacturer continues to work with the current supplier to identify feasible alternatives, however, at this point, no alternate materials or technology have been identified.  ABPI Recommendation  In the light of the above considerations, ABPI Recommends that sodium dichromate be exempt from authorisation for any use in the research, development, manufacture or analytical control of diagnostic tests and their ingredients
1772	2011/09/14 19:19 File attached	ADR  Company France	Automated processes and enclosed systems in surface treatment should be exempted, as well as activities covered by the IED directive; please see the enclosed letter
1752	2011/09/14 18:52 File attached	Company France	Automated processes and enclosed systems in surface treatment should be exempted, as well as activities covered by the IED directive; please see the enclosed letter



1741	2011/09/14 18:33 File attached	Company France	Automated processes and enclosed systems in surface treatment should be exempted, as well as activities covered by the IED directive; please see the enclosed letter
1727	2011/09/14 18:13	Indestructible Paint Ltd.  Company United Kingdom	The aerospace industry requests that sodium dichromate be exempt from Annex XIV of REACH for aerospace applications. If this is unacceptable to ECHA, the aerospace industry requests the longest possible timescale to identify, test and qualify alternative substances capable of meeting the demanding corrosion protection requirements of the industry.  If ECHA follow previous practice, it is likely that sodium dichromate will enter Annex XIV in January 2013, with a likely "Sunset date" of 3 years later, in January 2016. However, applications for Authorisation for the continued use of sodium dichromate would have to be completed and submitted 18 months before the "Sunset date"; July 2014 by the latest. This represents insufficient time to complete the necessary R&D programmes required to produce qualified alternatives to sodium dichromate. An extension of several years is essential for all concerned.  Another major reason for requesting an extension to the "Sunset date" is the complexity of the supply chain that is typically present within the aerospace industry. It has been estimated that there are up to 8 levels in the supply chain and complex sub-tier supply bases, which leads to the possibility of hundreds of companies being involved. All of these would have to be involved and managing this is a key requirement for the authorisation process. The time and effort involved would be substantial.  One additional point needs to be considered: the tonnage of sodium dichromate which is used by the Aerospace & Defence Industry (total, including all its supply-chain) is very low (greatly below 1t/year for each entity, and an estimate of < 20t/year for all our industry), so low that the consortium in charge of sodium dichromate registration dossier did not present a dossier for surface treatment. Our industry has been obliged to negotiate directly with its suppliers so that a registration dossier is deposited. A consequence of this situation is that no upstream supplier will push the Authorisation process, and our industry



			consortium, together with its surface treatment suppliers (>500), in order to prepare applications for authorisation. In particular we expect a very long and complex convergence process on substitution readiness assessment, amplified by the great number of actors, with different level of stakes. In order to organize this process we need an application date increased by 4 years compared to the average 2.5 years observed in the first Annex XIV issue.
1695	2011/09/14 17:30 File attached Confidential	Company Germany	We support the position of the Aerospace and Defence Industries of Europe (ASD)
1683	2011/09/14 17:16 File attached	sabena technics Company France	automated process and enclosed process (without emissions) in surface treatment should be exempted, as well as activities coverd by the IED directive. Please see the enclosed letter.



1660	2011/09/14 16:33 File attached	Company France	Automated processes and enclosed systems in surface treatment should be exempted, as well as activities covered by the IED directive; please see the enclosed letter
1646	2011/09/14 16:10 File attached Confidential	Company United Kingdom	We support the position of the Aerospace and Defence Industries of Europe (ASD)
1601	2011/09/14 15:04 File attached Confidential	Company United Kingdom	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.



1575	2011/09/14 14:41 File attached	A.M.P.E.R.E. INDUSTRIE  Company France	Automated processes and enclosed processes (without emissions) in surface treatment should be exempted, as well as activities covered by the IED directive. Please see the enclosed letter.
1572	2011/09/14 14:38	The Boeing Company Company United States	Given the critical nature of chromate to safe operation of aircraft, Boeing recommends that ECHA and the European Commission consider exemptions for the placing on the market or use as substance or in preparations for the following aerospace manufacturing and maintenance applications:  - As corrosion inhibitors such as primers for metallic substrates, adhesive bonding primers and adhesives.  - Metal finishing such as anodize, plating, conversion coatings, deoxidizing and surface treatment etchant baths.  - Sealants  - Chemical stripping  - Specialty coatings  An additional challenge is that aircraft have long life cycles (40 years or more) and alternatives must be compatible with existing aircraft support systems. Forced substitution would be incompatible with spare and maintenance after-markets. European suppliers and customers will need to use chromates for the foreseeable future to ensure product quality, reliability and safety. Uncertainties around the availability of these substances will have negative impact on the product life cycle. Thus, these uses should be exempted for safety critical applications or where a regulator's mandatory product performance requirements have no proven alternative. All existing and in-production fleets of civil and military aerospace products will require chromates to maintain operability for the next decades. The inclusion of these substances in Annex XIV for authorization will put European suppliers and operators under significant safety and business risk fostering supply disruptions, obsolescence and competitive disadvantage. Uncertainty whether authorization will be granted or not will be disruptive to complex aerospace supply chains given that these supply chains work on a long lead basis and the multiplicity of



			users and applications at all levels create uncertainty whether suppliers, maintenance facilities, airlines and military operators in the EU will be able to comply with the authorization requirements.  Finally, the environmental lifecycle of chromates must be considered; chromates provide an environmental benefit downstream by minimizing corrosion and extending overhaul periods. When applied, utilized, and disposed of within the existing prescribed handling guidelines, chromates do not pose a health threat to the flying public.
1370	2011/09/14 08:16	Goodrich Corporation Company United States	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.
1366	2011/09/14 08:15	Rohr Aero Services inc Company United States	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.



1368	2011/09/14 08:15	Goodrich Corporation Company United States	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.
1369	2011/09/14 08:15	Rohr Inc  Company United States	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.
1371	2011/09/14 08:15	Goodrich Krosno Ltd Company Poland	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.



1372	2011/09/14 08:15	Goodrich Aerospace Canada Itd Company Canada	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.
1364	2011/09/14 08:14	Rohr Aero Services Ltd Company United Kingdom	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.
1365	2011/09/14 08:14	Goodrich Aerospace Europe GmbH Company Germany	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.



1367	2011/09/14 08:14	Goodrich Aerospace Services Europe SAS Company France	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.
1354	2011/09/14 07:57	Ithaco Space Systems Inc Company United States	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.
1357	2011/09/14 07:57	Cloud Cap Technologies Company United States	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.



1350	2011/09/14 07:56	Goodrich Corporation Company United States	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.
1351	2011/09/14 07:56	Goodrich Control Systems Company United Kingdom	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.
1353	2011/09/14 07:56	Goodrich TEACO Aeronautical Systems (Xiamen) Company Ltd	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.



1355	2011/09/14 07:56	Recon/Optical Inc Company United States	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.
1347	2011/09/14 07:55	Goodrich Corporation Company United Arab Emirates	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.
1349	2011/09/14 07:55	Goodrich Control Systems Pte Ltd Company Australia	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.



1352	2011/09/14 07:55	Goodrich Aerospace Services SAS Company France	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.
1356	2011/09/14 07:55	Goodrich Control Systems Pte Ltd Company Singapore	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.
1348	2011/09/14 07:54	Goodrich Corporation Company United States	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.
1343	2011/09/14	TAEC	The primary use of sodium dichromate in aerospace and defence applications is to contribute to



	07:36	Aerospace  Company United States	the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.
1344	2011/09/14 07:36	Rosemount Aerospace Inc Company United States	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.
1345	2011/09/14 07:36	Goodrich Corporation Company United States	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.



1338	2011/09/14 07:35	Rosemount Aerospace SARL Company France	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.
1339	2011/09/14 07:35	Goodrich Control Systems Limited Company France	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.
1341	2011/09/14 07:35	Simmonds Precision Products Inc  Company United States	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.



1342	2011/09/14 07:35	Atlantic Inertial Systems  Company United States	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.
1346	2011/09/14 07:35	Rosemount Aerospace Inc Company China	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.
1336	2011/09/14 07:34	Atlantic Inertial Systems Itd  Company United Kingdom	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.



1337	2011/09/14 07:34	Goodrich Aerospace Pte Ltd  Company Singapore	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.
1340	2011/09/14 07:34	Rosemount Aerospace GmbH Company Germany	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.
1335	2011/09/14 07:16	Microtecnica Srl Company United Kingdom	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.



1334	2011/09/14 07:15	Crompton Technology Group Company United Kingdom	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.
1330	2011/09/14 07:14	Microtecnica srl  Company Italy	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.
1332	2011/09/14 07:14	Company France	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.



1333	2011/09/14 07:14	PT Goodrich Pindad Aeronautical Systems Indonesia	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.
		Indonesia	
1327	2011/09/14 07:13	Goodrich Corporation Company Japan	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.
1328	2011/09/14 07:13	Goodrich Corporation Company United States	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.



1329	2011/09/14 07:13	Goodrich Corporation Company Mexico	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.
1331	2011/09/14 07:13	Goodrich Actuation Systems Company United Kingdom	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.
1322	2011/09/14 06:53	Goodrich Control Systems Itd Company United Kingdom	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.



1323	2011/09/14 06:53	Goodrich Control Systems Itd Company United States	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.
1324	2011/09/14 06:53	Goodrich Pump and Engine control systems Inc Company United States	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.
1325	2011/09/14 06:53	Goodrich Control Systems Itd Company Canada	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.



1326	2011/09/14 06:53	Goodrich Control Systems Company Germany	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.
1321	2011/09/14 06:52	Goodrich corporation Company United States	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.
1320	2011/09/14 06:37	Goodrich Corporation Company United States	The primary use of sodium dichromate in aerospace and defence applications is to contribute to the corrosion protection scheme of the aircraft and its safety in flight. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.



1232	2011/09/14 01:08	KLM Engineering & Maintenance Company Netherlands	The primary use of sodium dichromate in aerospace applications is to contribute to the corrosion protection scheme of the aircraft. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.
1200	2011/09/13 20:23	Safran-Group  Company France	In addition to the comments made by ASD, the Safran Group is providing the following comment:  Given the facts that:  Ø the substance is used only in the process and by a limited number of companies  Ø the process is implemented by professional companies which apply the relevant safety rules in their facility for handling the substance  Ø the substance does not remain on the parts, or in very small quantities the Safran Group requests that sodium dichromate be exempt from Annex XIV of REACH:  Ø for automated processes in surface treatment  Ø for enclosed systems in surface treatment  Ø for surface treatment activities regulated by the IED Directive 2010/75/UE and the best available techniques.
1184	2011/09/13 19:43 File attached	Company France	Automated processes and enclosed systems in surface treatment should be exempted, as well as activities covered by the IED directive; please see the enclosed letter



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1135	2011/09/13 18:26	Agoria  Industry or trade association Belgium	We think that at least for hard chromium plating in appropriate installation a generic exemption should be given. We do see several arguments linked to this demand:  The low to non-existing exposure in the workplace. The only possible exposure is within the eventual setting-up, maintenance and or intervention in the automatic line. This limits even further the exposure time period and workers can be well protected during these interventions  The fact that the general public is not exposed at all given that the end product is not containing any chromium VI component, only a chrome metal plating,  It remains difficult to find technically and economic viable substitution products or processes and there is a high potential of complete delocalization of the production out of Europe. This will have an important impact on the supply chain, including some major pressure for the closing of certain important production plants given the fact that this step is an important element in the added value of these production chains.  We also believe that for hardchromation the proposed substances are to be seen as intermediates as they are transformed during the production process. These are in general exempted from the authorization process (article 2 §8 of REACH).
			exempted from the dutionzation process (dicide 2 30 of REACT).
1132	2011/09/13 18:24  File attached Confidential	International NGO United Kingdom	Comments On Uses That Should Be Exempted The aerospace industry requests that sodium dichromate be exempt from Annex XIV of REACH for aerospace applications. The primary use of sodium dichromate in aerospace applications is to contribute to the corrosion protection scheme of the aircraft. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.  It is important to note that the RoHS regulation allows exemption for chromium (VI) compounds that are to be used in transport applications. Other regulations applied to the aerospace industry detail corrosion performance requirements for corrosion protection. There are no fully qualified alternatives to chromium (VI) compounds that meet these requirements.  Finally, it is important to note that current production and legacy products will need to be maintained and possibly repaired throughout their life. It is essential that compatible corrosion protection products are available – for this reason sodium dichromate should be exempt from the requirements of Annex XIV for aerospace applications



1362	2011/09/13 18:24 File attached Confidential	International NGO United Kingdom	Comments On Uses That Should Be Exempted The aerospace industry requests that sodium dichromate be exempt from Annex XIV of REACH for aerospace applications. The primary use of sodium dichromate in aerospace applications is to contribute to the corrosion protection scheme of the aircraft. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.  It is important to note that the RoHS regulation allows exemption for chromium (VI) compounds that are to be used in transport applications. Other regulations applied to the aerospace industry detail corrosion performance requirements for corrosion protection. There are no fully qualified alternatives to chromium (VI) compounds that meet these requirements.  Finally, it is important to note that current production and legacy products will need to be maintained and possibly repaired throughout their life. It is essential that compatible corrosion protection products are available – for this reason sodium dichromate should be exempt from the requirements of Annex XIV for aerospace applications
1113	2011/09/13 18:07 File attached	L'ELECTROLYS E Company France	Activities covered by the IED directive should be exempted, as well as strategic processes and optimized and enclosed systems in surface treatment; please see the enclosed letter



1097	2011/09/13 17:53	AgustaWestlan d Ltd  Company United Kingdom	The aerospace industry requests that sodium dichromate be exempt from Annex XIV of REACH for aerospace applications.  The primary use of sodium dichromate in aerospace applications is to contribute to the corrosion protection scheme of the aircraft. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.  It is important to note that the RoHS regulation allows exemption for chromium (VI) compounds that are to be used in transport applications. Other regulations applied to the aerospace industry detail corrosion performance requirements for corrosion protection. There are no fully qualified alternatives to chromium (VI) compounds that meet these requirements.  Finally, it is important to note that current production and legacy products will need to be maintained and possibly repaired throughout their life. It is essential that compatible corrosion protection products are available – for this reason sodium dichromate should be exempt from the requirements of Annex XIV for aerospace applications.
1079	2011/09/13 17:23 File attached	Atelier Industriel de l'aéronautique de Clermont-Fd  Company France	Automated processes and enclosed systems in surface treatment should be exempted, as well as activities covered by the IED directive; please see the enclosed letter.



1078	2011/09/13 17:20 File attached	L'ELECTROLYS E Company France	Activities covered by the IED directive should be exempted, as well as strategic processes and optimized and enclosed systems in surface treatment; please see the enclosed letter
1065	2011/09/13 17:06 File attached	Company France	The aerospace industry requests that sodium dichromate be exempt from Annex XIV of REACH for aerospace applications.  The primary use of sodium dichromate in aerospace applications is to contribute to the corrosion protection scheme of the aircraft. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.  It is important to note that the RoHS regulation allows exemption for chromium (VI) compounds that are to be used in transport applications. Other regulations applied to the aerospace industry detail corrosion performance requirements for corrosion protection. There are no fully qualified alternatives to chromium (VI) compounds that meet these requirements.  Finally, it is important to note that current production and legacy products will need to be maintained and possibly repaired throughout their life. It is essential that compatible corrosion protection products are available – for this reason sodium dichromate should be exempt from the requirements of Annex XIV for aerospace applications.



1053	2011/09/13 16:55 File attached	UITS  Traede Union France	We ask an exemption for process which use sodium bichromate in automatic process, in enclosed process or activities which are covered by IED regulation.
1034	2011/09/13 16:32	Company Germany	The aerospace industry requests that sodium dichromate be exempt from Annex XIV of REACH for aerospace applications.  The primary use of sodium dichromate in aerospace applications is to contribute to the corrosion protection scheme of the aircraft. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.  It is important to note that the RoHS regulation allows exemption for chromium (VI) compounds that are to be used in transport applications. Other regulations applied to the aerospace industry detail corrosion performance requirements for corrosion protection. There are no fully qualified alternatives to chromium (VI) compounds that meet these requirements.  Finally, it is important to note that current production and legacy products will need to be maintained and possibly repaired throughout their life. It is essential that compatible corrosion protection products are available – for this reason sodium dichromate should be exempt from the requirements of Annex XIV for aerospace applications.
1016	2011/09/13 15:55	ETNA Industrie  Company France	Automated processes and enclosed systems in surface treatment should be exempted, as well as activities covered by the IED directive; please see the enclosed letter



1013	2011/09/13 15:51 File attached	Aerospace and Defence Industries of Europe	The aerospace industry requests that sodium dichromate be exempt from Annex XIV of REACH for aerospace applications.  The primary use of sodium dichromate in aerospace applications is to contribute to the corrosion protection scheme of the aircraft. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety
		Industry or trade association Belgium	Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.  It is important to note that the RoHS regulation allows exemption for chromium (VI) compounds that are to be used in transport applications. Other regulations applied to the aerospace industry detail corrosion performance requirements for corrosion protection. There are no fully qualified alternatives to chromium (VI) compounds that meet these requirements.  Finally, it is important to note that current production and legacy products will need to be maintained and possibly repaired throughout their life. It is essential that compatible corrosion protection products are available – for this reason sodium dichromate should be exempt from the requirements of Annex XIV for aerospace applications.
923	2011/09/13 12:58	Lufthansa Technik Aktiengesellsch aft Company Germany	The primary use of sodium dichromate in aerospace applications is to contribute to the corrosion protection scheme of the aircraft. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.



906	2011/09/13 12:03 File attached	AIA-CP Company France	Automated processes and enclosed systems in surface treatment should be exempted, as well as activities covered by the IED directive; please see the enclosed letter
898	2011/09/13 11:52	European Aviation Safety Agency European Institution Germany	This chemical substance is used in manufacturing and or maintenance of aviation products and parts. It might not be easy to find an alternative substance that would have the same attributes and or performance and the banning of such substance may therefore have a negative impact on aviation safety. We invite the ECHA to consider a possible exemption for the use in aviation applications or an appropriate transition period. The European Aviation Safety Agency is willing to contribute to a discussion on such exemption or transition.



854	2011/09/12 19:39 File attached	DALIC  Company France	Local conversions should be exempted because they apply world-scale specifications for local repair or local treatment on new parts, which still call for chromium VI processes (e.g. in aeronautics and Defence). Please see the enclosed letter.
831	2011/09/12 17:55 File attached	Company United Kingdom	The aerospace industry requests that sodium dichromate be exempt from Annex XIV of REACH for aerospace applications.  The primary use of sodium dichromate in aerospace applications is to contribute to the corrosion protection scheme of the aircraft. This is required to function for the life of the aircraft, which may be over 40 years. Corrosion protection is an essential defence mechanism for metallic components that are built into the structure of the aircraft and may be inaccessible in terms of easy maintenance. For this reason, many of the applications can be considered to be Safety Critical Applications. All such applications of sodium dichromate should be exempt from the requirements of Annex XIV.  It is important to note that the RoHS regulation allows exemption for chromium (VI) compounds that are to be used in transport applications. Other regulations applied to the aerospace industry detail corrosion performance requirements for corrosion protection. There are no fully qualified alternatives to chromium (VI) compounds that meet these requirements.  Finally, it is important to note that current production and legacy products will need to be maintained and possibly repaired throughout their life. It is essential that compatible corrosion protection products are available – for this reason sodium dichromate should be exempt from the requirements of Annex XIV for aerospace applications.



809	2011/09/12 16:43 File attached	France	Automated processes and enclosed systems in surface tratment should be exempted as well as activities covered by the IED directives
698	2011/09/09 16:21 File attached Confidential	Company Netherlands	Organon NV requests certain use of Sodium Dichromate to be exempt from inclusion in Annex XIV, in view of the low quantities used (3-5 tonnes/yr), lack of applicable alternatives, use in an industrial setting, proper control of the substance, virtual absence of environmental exposure and the substantial socio-economic benefit (manufacturing of contraceptives). Protection of human health and the environment are governed by current EC legislation, and risks are properly controlled. Detailed argumentation and information is provided in the Attachements.
675	2011/09/09 13:03	Hach Lange GmbH Company Germany	It is essential to exempt the use of Sodium dichromate for "analysis purposes" respective "laboratory uses" from the requirement for approval, or it should be classified as an approved use.



657	2011/09/09 11:39 File attached	Company Germany	We suggest to exempt from the authorization the refilling and placing on the market of solid sodium dichromate solely for the supply to industrial and professional users for scientific research and development. Sodium dichromate will only be supplied in packages used in laboratories. The exemption is required to secure research and development done in laboratories. The use of the solid in scientific R&D (< 1 t/a) is already exempted.  Sodium dichromate is used in scientific research and development e.g. as an oxidizer for the oxidative disintegration or in organic synthesis. It is prescribed as analytical reagent in the ACS. All uses described above are done in the laboratory by industrial and professional users that are well-trained.  According to our knowledge the majority of the sodium dichromate used in laboratories is disposed of in line with current legislation.  Therefore, we suggest that not only the use of sodium dichromate in scientific research and development but also the refilling to supply into these R&D applications should be exempted from authorisation.
619	2011/09/08 10:29	CEFIC Sodium Chlorate Sector Group Industry or trade associaation Belgium	No substitution available.
608	2011/09/07 19:11 File attached Confidential	Individual France	We ask ECHA for:  □ Delaying the inclusion of chromates in the Annex XIV,  □ Postponing the application dates and the sunset dates,  □ Accepting an exemption from Annex XIV obligations for legacy programs.



605	2011/09/07 18:09 File attached	Individual France	Automated processes in surface treatment should be exempted, as well as activities covered by the IED directive. Please see the enclosed letter
532	2011/08/17 13:49	MTU Aero Engines GmbH Company Germany	Eine Ausnahme von der Zulassungspflicht für die Luftfahrtindustrie ist anzustreben. Um die Sicherheit im Bereich der Luftfahrt weiter aufrecht erhalten zu können, ist es zwingend erforderlich, galvanische Verfahren mit gefährlichen Stoffen zu betreiben. Natriumdichromat wird in der MTU Aero Engines GmbH zum Entoxidieren von Ti-Flugtriebwerksbauteilen eingesetzt. Dies geschieht in Deutschland (hier liegt eine sehr restriktive Anforderung der Che-mikalien- und Umweltgesetzgebung vor) nach dem Stand der Technik. Der Schutz der Mitarbeiter ist jederzeit durch die technischen-, organisatorischen- und persönli-chen Schutzmaßnahmen sichergestellt. Eine Einschränkung dieser Anwendung hätte zur Folge, dass die Sicherheit bestimmter Flugtriebwerkbauteilen nicht mehr gewähr-leistet werden kann. Dem Anspruch der Luftfahrtindustrie, sichere Verkehrsmittel zu erstellen um damit die Sicherheit eines zukunftsträchtigen Verkehrsbereiches zu ge-währleisten, ist nur mit besonderen, international festgeschriebenen Verfahren zu erfüllen. Demzufolge, um die Sicherheit der Bauteile weiter aufrecht erhalten zu kön-nen, ist damit zu rechnen, dass über die Verlagerung entsprechender Verfahren ins außereuropäische Ausland nachgedacht wird. Mit der potentiellen Verlagerung würden Teile von Hochtechnologie in Europa verlo-ren gehen. Außerdem ist bekannt, dass in einigen außereuropäischen Ländern ver-schiedene Gefahrstoffe nicht als solche eingestuft sind. Durch Verlagerung von Pro-duktion und Verfahren in diesen Ländern ist mit einer höheren Gefährdung der Umwelt und der Mitarbeiter zu rechnen.
524	2011/08/08 15:18	Company United Kingdom	Anodising, passivation of stainless steel, passivation of cadmium plating - processes are already subject to many different pieces of legislation including air sampling and health monitoring. Biological monitoring by the HSE has shown that median levels are equivalent to background levels (i.e. no exposure of workers). Authorisation will not further improve worker health & safety or environmental protection. Chromic anodising and hard chrome do not present a risk to consumers as the substances are converted to metallic chrome or oxide layers during processing. A significant loss of UK and EU manufacturing would result from authorisation because the substances will still be available for use outside the EU.



512	2011/07/28 17:07	Revill Industrial Finishes  Company United Kingdom	They are already subject to many different pieces of legislation b) Biological monitoring by the HSE has shown that median levels are equivalent to background levels i.e. no exposure c) Consumers are not exposed to the substances as they are converted to other chromates during processing d) Authorisation will not improve worker health & safety nor environmental protection e) Significant loss of manufacturing will occur because the substances will still be available for use outside of the EU
505	2011/07/28 16:53	Southwest Metal Finishing Ltd  Company United Kingdom	They are already subject to many different pieces of legislation b) Biological monitoring by the HSE has shown that median levels are equivalent to background levels i.e. no exposure c) Consumers are not exposed to the substances as they are converted to other chromates during processing d) Authorisation will not improve worker health & safety nor environmental protection e) Significant loss of manufacturing will occur because the substances will still be available for use outside of the EU
477	2011/07/06 16:17 File attached Confidential	Company United Kingdom	The pre-treatment of structural aluminium aircraft components for adhesive bonding should be exempt for air safety reasons.



## IV - COMMENTS ON USES FOR WHICH REVIEW PERIODS SHOULD BE INCLUDED IN ANNEX XIV, INCLUDING REASONS FOR THAT:

#	Date (Attachment provided)	Submitted by (name, Organisation/MSCA)	Comment
1847	2011/09/15 00:06 File attached	Aerospace Industries Association of America	See attached.
		Industry or Trade Association United States	
1727	2011/09/14 18:13	Indestructible Paint Ltd.	The aerospace industry requests that sodium dichromate be exempt from Annex XIV of REACH for aerospace applications. If safety critical applications of sodium dichromate are not accepted as being exempt from the requirements of Annex XIV, they should be subject to review after a suitable extended period of time. The review period should reflect the considerable time already taken in the search for alternatives. This allows suitable time for the completion of the necessary
		Company United Kingdom	R&D and qualification programmes required for these demanding applications. Those applications of sodium dichromate which are not classified as safety critical, and which cannot therefore be considered for exemption from the requirements of Annex XIV, should be subject to review after a suitable period of, for example, 6 - 10 years, to establish whether suitable alternatives have been introduced or whether additional time is still required. It is essential that when this substance is subject to review, the performance of any alternative substances is considered both in terms of the performance specifications of the industry and the need to be compatible with corrosion protection treatments on existing and legacy airframe components.
			General Comment 1: Consider Delaying Prioritisation The aerospace industry requests that sodium dichromate be exempt from Annex XIV of REACH for aerospace applications. If this is unacceptable to ECHA, the longest possible timescales are requested to allow for alternatives to be identified, tested and qualified.



It is essential to know whether current controls are adequately addressing the risk or whether additional controls are required. For this reason, it would be prudent to await the outcome of the latest batch of studies into the health effects of chromium (VI) compounds before making a decision on whether sodium dichromate should be added to Annex XIV. If the study recommends that additional equipment is required to achieve optimum control of the risks, this may have an impact on the desire to pursue a potential authorisation request. General Comment 2: Defer Prioritisation

The aerospace industry requests that sodium dichromate be exempt from Annex XIV of REACH for aerospace applications. If this is unacceptable to ECHA, the longest possible timescales are requested to allow for alternatives to be identified, tested and qualified.

Chromium (VI) compounds, of which sodium dichromate is an example, have a well known reputation as excellent corrosion protectives for aluminium components. Their use began in the 1930s and has continued to the present, giving an extensive period of experience and knowledge of their properties. They are currently and widely regarded as the most effective solutions available for the corrosion protection of aluminium airframes. They are extremely effective because of their ability to protect areas where damage has occurred.

The development of alternative solutions, which do not contain sodium dichromate, has been the subject of Research and Development activities for a number of years, in some cases 20+, and is continuing. It is exceptionally complex. The timescales for such programmes are extensive: typically it is necessary to identify a range of possible alternatives, complete initial screening tests to allow the best contenders to emerge, develop these into commercially viable solutions and then complete the qualification testing demanded by the aerospace industry. Qualification testing has to be completed against either internationally recognised performance standards or internal company standards, in order to satisfy the quality requirements of the industry. The safety critical performance criteria that needs to be met has meant that alternatives have fallen well short. If an alternative is developed it must go through a rigorous program of testing including approvals from EASA (European Aviation Safety Agency) and FAA (Federal Aviation Administration). These are varied depending on the application and will require airworthiness testing.

For these reasons, it is essential that prioritisation be deferred for as long as possible, to allow time for alternative solutions to become fully tested and accepted. Without this delay, it is anticipated that there will be extensive applications for authorisation to continue to use sodium dichromate when it appears on Annex XIV. The level of effort that will be expended in making these applications could be better employed in sorting out the qualification and introduction of alternatives. Similarly, the resources required at ECHA to deal with these applications could be



			better employed on other topics. An additional reason for deferring the prioritisation of sodium dichromate is the need to allow sufficient time for the formation of suitable consortia, involving actors from all parties concerned in the supply chain. These are essential if comprehensive applications are to be made for Authorisation. Given the complex nature of an application for Authorisation, and the likely need for negotiations involving value of existing background data and intellectual property rights, an extended period of time is required to allow consortia to be formed.
1695	2011/09/14 17:30 File attached Confidential	Company Germany	We support the position of the Aerospace and Defence Industries of Europe (ASD)



1646	2011/09/14 16:10 File attached Confidential	Company United Kingdom	We support the position of the Aerospace and Defence Industries of Europe (ASD)
1601	2011/09/14 15:04 File attached Confidential	Company United Kingdom	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required).  Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.



1572	2011/09/14 14:38	The Boeing Company Company United States	The aerospace industry is heavily regulated by regional and international requirements. The development and implementation of replacement processes takes a considerable amount of time. Identifying workable review periods may hardly be efficient and priority should be given to justified exemptions. Nevertheless, in case of a critical safety application or where no proven alternative is foreseeable, it is important that any review period should take into account the considerable time already taken in the largely unsuccessful search for alternatives, allowing suitable and technically realistic timelines for the completion of the necessary R&D, qualification, and implementation throughout a well-distributed supply chain.
1370	2011/09/14 08:16	Goodrich Corporation Company United States	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1366	2011/09/14 08:15	Rohr Aero Services inc Company United States	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.



1368	2011/09/14 08:15	Goodrich Corporation Company United States	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1369	2011/09/14 08:15	Rohr Inc  Company United States	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1371	2011/09/14 08:15	Goodrich Krosno Ltd Company Poland	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.



1372	2011/09/14 08:15	Goodrich Aerospace Canada ltd Company Canada	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1364	2011/09/14 08:14	Rohr Aero Services Ltd Company United Kingdom	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1365	2011/09/14 08:14	Goodrich Aerospace Europe GmbH Company Germany	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.



1367	2011/09/14 08:14	Goodrich Aerospace Services Europe SAS Company France	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1354	2011/09/14 07:57	Ithaco Space Systems Inc Company United States	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1357	2011/09/14 07:57	Cloud Cap Technologies Company United States	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1350	2011/09/14 07:56	Goodrich Corporation	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even



		Company United States	when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1351	2011/09/14 07:56	Goodrich Control Systems Company United Kingdom	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required).  Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1353	2011/09/14 07:56	Goodrich TEACO Aeronautical Systems (Xiamen) Company Ltd	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required).  Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1355	2011/09/14 07:56	Recon/Optical Inc	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are



		Company United States	unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1347	2011/09/14 07:55	Goodrich Corporation Company United Arab Emirates	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required).  Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1349	2011/09/14 07:55	Goodrich Control Systems Pte Ltd Company Australia	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.



1352	2011/09/14 07:55	Goodrich Aerospace Services SAS Company France	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1356	2011/09/14 07:55	Goodrich Control Systems Pte Ltd  Company Singapore	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1348	2011/09/14 07:54	Goodrich Corporation Company United States	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.



1343	2011/09/14 07:36	TAEC Aerospace Company United States	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1344	2011/09/14 07:36	Rosemount Aerospace Inc Company United States	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1345	2011/09/14 07:36	Goodrich Corporation Company United States	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.



1338	2011/09/14 07:35	Rosemount Aerospace SARL Company France	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1339	2011/09/14 07:35	Goodrich Control Systems Limited Company France	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1341	2011/09/14 07:35	Simmonds Precision Products Inc  Company United States	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.



1342	2011/09/14 07:35	Atlantic Inertial Systems  Company	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required).  Therefore identifying short review periods for Aerospace and defence industry critical uses of
		United States	sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1346	2011/09/14 07:35	Rosemount Aerospace Inc  Company China	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1336	2011/09/14 07:34	Atlantic Inertial Systems Itd  Company United Kingdom	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1337	2011/09/14 07:34	Goodrich Aerospace Pte Ltd	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are



		Company Singapore	unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required).  Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1340	2011/09/14 07:34	Rosemount Aerospace GmbH  Company Germany	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1335	2011/09/14 07:16	Microtecnica Srl Company United Kingdom	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.



1334	2011/09/14 07:15	Crompton Technology Group  Company United Kingdom	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1330	2011/09/14 07:14	Microtecnica srl  Company Italy	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1332	2011/09/14 07:14	Company France	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.



1333	2011/09/14 07:14	PT Goodrich Pindad Aeronautical Systems Indonesia	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1327	2011/09/14 07:13	Goodrich Corporation Company Japan	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required).  Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1328	2011/09/14 07:13	Goodrich Corporation Company United States	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.



1329	2011/09/14 07:13	Goodrich Corporation Company Mexico	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required).  Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1331	2011/09/14 07:13	Goodrich Actuation Systems Company United Kingdom	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1322	2011/09/14 06:53	Goodrich Control Systems Itd  Company United Kingdom	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.



1323	2011/09/14 06:53	Goodrich Control Systems Itd Company United States	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1324	2011/09/14 06:53	Goodrich Pump and Engine control systems Inc Company United States	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1325	2011/09/14 06:53	Goodrich Control Systems Itd Company Canada	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.



1326	2011/09/14 06:53	Goodrich Control Systems Company Germany	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1321	2011/09/14 06:52	Goodrich corporation Company United States	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required).  Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.
1320	2011/09/14 06:37	Goodrich Corporation  United Kingdom United States	The Aerospace and Defence industry operates very long life cycle products, many in excess of 40 years in service. The industry is heavily regulated and the introduction of new processes even when approved still takes a considerable amount of time. In addition these new processes are unlikely to be backwards compatible ie they cannot be used to repair or maintain products which are already in service (the original process will still be required). Therefore identifying short review periods for Aerospace and defence industry critical uses of sodium dichromate will not be an efficient use of EHCA's resources. The recommendation is not to include review periods for these uses however if they must be included then they should be many years apart in order to reflect the complex nature of developing and obtaining approval for alternatives.



1232	2011/09/14 01:08	KLM Engineering & Maintenance Company Netherlands	If safety critical applications of sodium dichromate are not accepted as being exempt from the requirements of Annex XIV, they should be subject to review after a suitable period of time. The review period should reflect the considerable time already taken in the search for alternatives. This allows suitable time for the completion of the necessary R&D and qualification programmes required for these demanding applications.  Those applications of sodium dichromate which are not classified as safety critical, and which cannot therefore be considered for exemption from the requirements of Annex XIV, should be subject to review after a suitable period of, for example, 2 years, to establish whether suitable alternatives have been introduced or whether additional time is still required.
1132	2011/09/13 18:24 File attached Confidential	International NGO United Kingdom	Comments On Uses For Which Review Periods Should Be Included In Annex XIV The aerospace industry requests that sodium dichromate be exempt from Annex XIV of REACH for aerospace applications. If safety critical applications of sodium dichromate are not accepted as being exempt from the requirements of Annex XIV, they should be subject to review after a suitable extended period of time. The review period should reflect the considerable time already taken in the search for alternatives. This allows suitable time for the completion of the necessary R&D and qualification programmes required for these demanding applications.  Those applications of sodium dichromate which are not classified as safety critical, and which cannot therefore be considered for exemption from the requirements of Annex XIV, should be subject to review after a suitable period of, for example, 6 - 10 years, to establish whether suitable alternatives have been introduced or whether additional time is still required.  It is essential that when this substance is subject to review, the performance of any alternative substances is considered both in terms of the performance specifications of the industry and the need to be compatible with corrosion protection treatments on existing and legacy airframe components.



1362	2011/09/13 18:24 File attached Confidential	International NGO United Kingdom	Comments On Uses For Which Review Periods Should Be Included In Annex XIV The aerospace industry requests that sodium dichromate be exempt from Annex XIV of REACH for aerospace applications. If safety critical applications of sodium dichromate are not accepted as being exempt from the requirements of Annex XIV, they should be subject to review after a suitable extended period of time. The review period should reflect the considerable time already taken in the search for alternatives. This allows suitable time for the completion of the necessary R&D and qualification programmes required for these demanding applications. Those applications of sodium dichromate which are not classified as safety critical, and which cannot therefore be considered for exemption from the requirements of Annex XIV, should be subject to review after a suitable period of, for example, 6 - 10 years, to establish whether suitable alternatives have been introduced or whether additional time is still required. It is essential that when this substance is subject to review, the performance of any alternative substances is considered both in terms of the performance specifications of the industry and the need to be compatible with corrosion protection treatments on existing and legacy airframe components.
1097	2011/09/13 17:53	AgustaWestlan d Ltd Company United Kingdom	The aerospace industry requests that sodium dichromate be exempt from Annex XIV of REACH for aerospace applications. If safety critical applications of sodium dichromate are not accepted as being exempt from the requirements of Annex XIV, they should be subject to review after a suitable extended period of time. The review period should reflect the considerable time already taken in the search for alternatives. This allows suitable time for the completion of the necessary R&D and qualification programmes required for these demanding applications. Those applications of sodium dichromate which are not classified as safety critical, and which cannot therefore be considered for exemption from the requirements of Annex XIV, should be subject to review after a suitable period of, for example, 6 - 10 years, to establish whether suitable alternatives have been introduced or whether additional time is still required. It is essential that when this substance is subject to review, the performance of any alternative substances is considered both in terms of the performance specifications of the industry and the need to be compatible with corrosion protection treatments on existing and legacy airframe components.



1065	2011/09/13 17:06 File attached	Company France	The aerospace industry requests that sodium dichromate be exempt from Annex XIV of REACH for aerospace applications. If safety critical applications of sodium dichromate are not accepted as being exempt from the requirements of Annex XIV, they should be subject to review after a suitable extended period of time. The review period should reflect the considerable time already taken in the search for alternatives. This allows suitable time for the completion of the necessary R&D and qualification programmes required for these demanding applications. Those applications of sodium dichromate which are not classified as safety critical, and which cannot therefore be considered for exemption from the requirements of Annex XIV, should be subject to review after a suitable period of, for example, 6 - 10 years, to establish whether suitable alternatives have been introduced or whether additional time is still required. It is essential that when this substance is subject to review, the performance of any alternative substances is considered both in terms of the performance specifications of the industry and the need to be compatible with corrosion protection treatments on existing and legacy airframe components.
1034	2011/09/13 16:32	Company Germany	The aerospace industry requests that sodium dichromate be exempt from Annex XIV of REACH for aerospace applications. If safety critical applications of sodium dichromate are not accepted as being exempt from the requirements of Annex XIV, they should be subject to review after a suitable extended period of time. The review period should reflect the considerable time already taken in the search for alternatives. This allows suitable time for the completion of the necessary R&D and qualification programmes required for these demanding applications. Those applications of sodium dichromate which are not classified as safety critical, and which cannot therefore be considered for exemption from the requirements of Annex XIV, should be subject to review after a suitable period of, for example, 6 - 10 years, to establish whether suitable alternatives have been introduced or whether additional time is still required. It is essential that when this substance is subject to review, the performance of any alternative substances is considered both in terms of the performance specifications of the industry and the need to be compatible with corrosion protection treatments on existing and legacy airframe components.
1016	2011/09/13 15:55	ETNA Industrie Company France	please see the enclosed letter



1013	2011/09/13 15:51 File attached	Aerospace and Defence Industries of Europe  Industry or trade association Belgium	The aerospace industry requests that sodium dichromate be exempt from Annex XIV of REACH for aerospace applications. If safety critical applications of sodium dichromate are not accepted as being exempt from the requirements of Annex XIV, they should be subject to review after a suitable extended period of time. The review period should reflect the considerable time already taken in the search for alternatives. This allows suitable time for the completion of the necessary R&D and qualification programmes required for these demanding applications. Those applications of sodium dichromate which are not classified as safety critical, and which cannot therefore be considered for exemption from the requirements of Annex XIV, should be subject to review after a suitable period of, for example, 6 - 10 years, to establish whether suitable alternatives have been introduced or whether additional time is still required. It is essential that when this substance is subject to review, the performance of any alternative substances is considered both in terms of the performance specifications of the industry and the need to be compatible with corrosion protection treatments on existing and legacy airframe components.
923	2011/09/13 12:58	Lufthansa Technik Aktiengesellsch aft Company Germany	If safety critical applications of sodium dichromate are not accepted as being exempt from the requirements of Annex XIV, they should be subject to review after a suitable period of time. The review period should reflect the considerable time already taken in the search for alternatives. This allows suitable time for the completion of the necessary R&D and qualification programmes required for these demanding applications.  Those applications of sodium dichromate which are not classified as safety critical, and which cannot therefore be considered for exemption from the requirements of Annex XIV, should be subject to review after a suitable period of, for example, 2 years, to establish whether suitable alternatives have been introduced or whether additional time is still required.
854	2011/09/12 19:39 File attached	DALIC Company France	For most of the processes, previous and current research did not succeed completely and did not open new prospects of research.  Chromium salts are still mainly used in Aeronautics and Defence; qualifications of new processes are for safety reasons, long, expensive and heavy. The length of the exemption or authorization must take in account these aspects.



831	2011/09/12 17:55 File attached	Company United Kingdom	The aerospace industry requests that sodium dichromate be exempt from Annex XIV of REACH for aerospace applications. If safety critical applications of sodium dichromate are not accepted as being exempt from the requirements of Annex XIV, they should be subject to review after a suitable extended period of time. The review period should reflect the considerable time already taken in the search for alternatives. This allows suitable time for the completion of the necessary R&D and qualification programmes required for these demanding applications.  Those applications of sodium dichromate which are not classified as safety critical, and which cannot therefore be considered for exemption from the requirements of Annex XIV, should be subject to review after a suitable period of, for example, 6 - 10 years, to establish whether suitable alternatives have been introduced or whether additional time is still required. It is essential that when this substance is subject to review, the performance of any alternative substances is considered both in terms of the performance specifications of the industry and the need to be compatible with corrosion protection treatments on existing and legacy airframe components.
698	2011/09/09 16:21 File attached Confidential	Company Netherlands	
605	2011/09/07 18:09 File attached	Individual France	For most processes, previous research programs have failed and have not opened up avenues of research. Chromium salts are used for a large part in the aviation sector, the qualifications of the new processes are, for safety reasons, long, expensive and loaded. The duration of the permit must take into account these constraints



532	2011/08/17 13:49	MTU Aero Engines GmbH Company	Wir sind der Überzeugung, dass in einem Zeitrahmen von 5 – 7 Jahren, bei entsprechender Datenlage, Zulassungen neu bewertet werden könnten.
		Germany	
477	2011/07/06 16:17 File attached Confidential	Company United Kingdom	5 years and every 2 years thereafter as testing, developments and qualification times are lengthy.