20 DECEMBER 2011

ANNEX VII TO RESPONSES TO COMMENTS DOCUMENT (RCOM) ON ECHA'S DRAFT 3RD RECOMMENDATION FOR THE GROUP OF RECOMMENDED CHROMIUM (VI) COMPOUNDS - COMMENTS ON SODIUM CHROMATE (EC NUMBER: 231-889-5)

THIS DOCUMENT PROVIDES THE COMMENTS RECEIVED ON SODIUM CHROMATE DURING THE PUBLIC CONSULTATION ON THE 3RD 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
1224	2011/09/14 00:51	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 processs 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. 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, in particular 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 continuing use. Chromates are used in the manufacturing of many chemical products in the aerospace industry, primarily in the protective finishes of metal components. While many of these finishes are also used in other industries, such as those directed at consumers, the technical requirements for the aerospace industry are usually much more demanding. For example, paint finishes may have to protect the base metal from corrosion for up to 40 years, as is required on passenger aeroplanes, to ensure the safety of passengers. Alternatives are not typically compatible with existing aircraft support systems and forced substitution would be incompatible with spare and maintenance after-markets. Satellite and Aircraft finishes for aluminium alloys often have to be highly conductive and the anodising process which is proposed as a potential replacement for chromate conversion coatings (for example Alodine) by some industries, would not be suitable. The hazards associated with the hexavalent form of soluble chromium salts, such as sodium chromate (VI), are well known to global industry, with classification of Carcinogen Category 2 and Mutagen Category 2. As such the uses of this substance are and continue to be well controlled to reduce and manage the risks. Improvements in guidance and practices in recent years have provided opportunities to significantly improve 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 there is further scope for improvement of the best practice guidance. 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. General Comment 1: Consider Delaying Prioritisation According to the draft ECHA dossier for sodium chromate its use is in small volumes and exposure is very well controlled, often in fully enclosed systems. In the conclusions section it is stated that "the priority for recommending this substance for inclusion is very low" Within the aerospace industry the use of this substance is for niche applications such as

			descaling of heat treated titanium, epoxy paint removers, paint stripper and surface cleaning. In some cases there are no current alternatives and business continuity will be affected. Sufficient time is required to develop alternatives and industrialisation. By delaying prioritisation sufficient time will result in sectoral phase out. General Comment 2: Defer Prioritisation The development of alternative solutions, which do not contain sodium chromate, 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 and safety requirements of the industry. The safety critical performance criteria that need 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 chromate when it appears on Annex XIV. The level of effort that will be expended in making these applications could be better employed in successful qualification and introduction of an alternative. 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 chromate is the need to allow sufficient time for the formation of suitable consortia, involving actors from all parties affected 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.

1112	2011/09/13 18:05 File attached	GIFAS Industry or trade association France	
940	2011/09/13 13:23	United Kingdom MemberState United Kingdom	Based on the prioritisation criteria and the possibility of significant workplace exposure we agree with the proposal to recommend the following substances for inclusion in Annex XIV. Chromium Trioxide Acids generated from Chromium Trioxide and there oligomers. Sodium Dichromate As there is the possibility of substitution to replace other hexavalent chromium compounds, based on the prioritisation criteria and the possibility of significant workplace exposure we agree with the proposal to recommend the following substances for inclusion in Annex XIV. Ammonium Dichromate Sodium Chromate Potassium Dichromate Potassium Chromate
956	2011/09/13 14:18	Lufthansa Technik Aktiengesellschaft Company Germany	Chromium (VI) compounds have been clearly identified as carcinogens, in particular 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 continuing use. Chromates are used in the manufacturing of many chemical products in the aerospace industry, primarily in the protective finishes of metal components. While many of these finishes are also used in other industries, such as those directed at consumers, the technical requirements for the aerospace industry are usually much more demanding. For example, paint finishes may have to protect the base metal from corrosion for up to 40 years, as is required on passenger aeroplanes, to ensure the safety of passengers. Alternatives are not typically compatible with existing aircraft support systems and forced substitution would be incompatible with spare and maintenance after-markets. Satellite and Aircraft finishes for aluminium alloys often have to be highly conductive and the anodising process which is proposed as a potential replacement for chromate

			conversion coatings (for example Alodine) by some industries, would not be suitable. . The hazards associated with the hexavalent form of soluble chromium salts, such as sodium chromate (VI), are well known to global industry, with classification of Carcinogen Category 2 and Mutagen Category 2. As such the uses of this substance are and continue to be well controlled to reduce and manage the risks. Improvements in guidance and practices in recent years have provided opportunities to significantly improve the control of these risks. Consider Delaying Prioritisation According to the draft ECHA dossier for sodium chromate its use is in small volumes and exposure is very well controlled, often in fully enclosed systems. In the conclusions section it is stated that "the priority for recommending this substance for inclusion is very low" Within the aerospace industry the use of this substance is for niche applications such as descaling of heat treated titanium, epoxy paint removers, paint stripper and surface cleaning. In some cases there are no current alternatives and business continuity will be affected. Sufficient time is required to develop alternatives and industrialisation. By delaying prioritisation sufficient time will result in sectoral phase out. Defer Prioritisation The development of alternative solutions, which do not contain sodium chromate, 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 and safety requirements of the industry. The safety critical performance criteria that need 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 chromate when it appears on Annex XIV. The level of effort that will be expended in making

			these applications could be better employed in successful qualification and introduction of an alternative. 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 chromate is the need to allow sufficient time for the formation of suitable consortia, involving actors from all parties affected 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.
874	2011/09/13 11:14 File attached Confidential	Individual Sweden	Dometic does not object to the inclusion of Sodium Chromate in Annex XIV nor to the proposed low prioritization of the substance. However, Dometic takes the position that the use of sodium chromate as anti-corrosion inhibitor in absorption refrigerators should be exempted from authorization requirement on two main grounds explained in the section below on exempt uses or categories of uses.

900	2011/09/13 11:53 File attached	Company United Kingdom	Introduction Chromium (VI) compounds have been clearly identified as carcinogens, in particular 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 continuing use. Chromates are used in the manufacturing of many chemical products in the aerospace industry, primarily in the protective finishes of metal components. While many of these finishes are also used in other industries, such as those directed at consumers, the technical requirements for the aerospace industry are usually much more demanding. For example, paint finishes may have to protect the base metal from corrosion for up to 40 years, as is required on passenger aeroplanes, to ensure the safety of passengers. Alternatives are not typically compatible with existing aircraft support systems and forced substitution would be incompatible with spare and maintenance after-markets. The hazards associated with the hexavalent form of soluble chromium salts, such as sodium chromate, are well known to global industry, with Classifications Carcinogen Category 2 and Mutagen Category 2. As such the uses of this substance are and continue 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. General Comment 1: Consider Delaying Prioritisation According to the draft ECHA dossier for sodium chromate its use is in small volumes and exposure is very well controlled, often in fully enclosed systems. In the conclusions section it is stated that "the priority for recommending this substance for inclusion is very low" Within the aerospace industry the use of this substance is for niche applications such as descaling of heat treated titanium, epoxy paint removers, paint stripper and surface cleaning. In some cases there are no current alternatives and business continuity will be affected. Sufficient time is required to develop alternatives and industrialisation. By delaying prioritisation sufficient time will result in sectoral phase out. General Comment 2: Defer Prioritisation The development of alternative solutions, which do not contain sodium chromate, 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 criterion 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 applications for authorisation to continue to use sodium chromate 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 alternative. 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 chromate 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.
983	2011/09/13 14:51	AREVA Company France	Laboratory measurment for quality reasons and/or monitoring of release require uses of such substances. It should be clearly stated that such used are exempted of authorization process.

1570	2011/09/14 14:35	The Boeing Company Company United States	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 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 chromate 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.
1133	2011/09/13 18:25	Agoria Academic Institution 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 anti-adhesive, 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.
899	2011/09/13 11:53 File attached	AIA-CP Company France	The use of sodium chromate in surface treatment doesn't meet the criteria of priorisation; please see the enclosed letter
1073	2011/09/13 17:17	Germany MemberState Germany	We support the ECHA proposal on prioritisation of sodium chromate due to its CMR properties. Conclusion, taking regulatory effectiveness considerations into account, page 3: As hexavalent chromium is the toxicologically relevant species in this compound not only replacement of 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.

1617	2011/09/14 15:33	Health and Environment Alliance International NGO Belgium	We support the inclusion of sodium chromate to Annex XIV
987	2011/09/13 14:56	Sweden MemberState Sweden	We support the prioritisation of sodium chromate for inclusion in Annex XIV even though the scoring approach results in very low priority. As chromium (VI) compounds have partially the same uses and could be replaced by each other a grouping approach is warranted.
553	2011/08/24 14:12	WWF European Policy Office Internatioanl NGO Belgium	WWF supports the prioritisation for inclusion in Annex XIV due to the fact that it could be used to replace other hexavalent chromium compounds.

II - TRANSITIONAL ARRANGEMENTS. COMMENTS ON THE PROPOSED DATES:

#	Date (Attachment provided)	Submitted by (name, Organisation/ MSCA)	Comment
1570	2011/09/14 14:35	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.
1224	2011/09/14 00:51	KLM Engineering & Maintenance Company Netherlands	If ECHA follow previous practice, it is likely that sodium chromate 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 chromate 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 chromate. An extension of several years would result in alternatives being developed, industrialisation and then sectoral phase out. Insufficient time could result in manufacturing being moved outside of Europe.
956	2011/09/13 14:18	Lufthansa Technik Aktiengesellschaft Company Germany	If ECHA follow previous practice, it is likely that sodium chromate 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 chromate 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 chromate. An extension of several years would result in alternatives being developed, industrialisation and then sectoral phase out. Insufficient time could result in manufacturing being moved outside of Europe.

900	2011/09/13 11:53 File attached	Company United Kingdom	If ECHA follow previous practice, it is likely that sodium chromate will enter Annex XIV in January 2012, with a likely "Sunset date" of 4 years later, in January 2016. However, applications for Authorisation for the continued use of sodium chromate 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 chromate. An extension of several years would result in alternatives being developed, industrialisation and then sectoral phase out. Insufficient time could result in manufacturing being moved outside of Europe.
874	2011/09/13 11:14 File attached Confidential	Individual Sweden	No comments

553	2011/08/24 14:12	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.
1133	2011/09/13 18:25	Agoria Academic Institution 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.
897	2011/09/13 11:51	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.
987	2011/09/13 14:56	Sweden MemberState Sweden	We agree with the proposed dates.

899	2011/09/13 11:53 File attached	AIA-CP Company France	We need an extension of the deadlines; please see the enclosed letter

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

#	Date (Attachment provided)	Submitted by (name, Organisation/ MSCA)	Comment
1570	2011/09/14 14:35	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.
1224	2011/09/14 00:51	KLM Engineering & Maintenance Company Netherlands	Paintstrip. No alternative available that is approved by OEM and Authority

874	2011/09/13 11:14 File attached Confidential	Individual Sweden	Sodium chromate is used as an anti-corrosion inhibitor of the carbon steel cooling system in absorption refrigerators.Since 1925, Dometic (previously owned by Electrolux) has produced some 50 million absorption refrigerators. Today, Dometic produces approximately 700.000 cooling units per year, of which 350.000 units are sold in Europe. The European production facilities are located in Germany and Hungary. The Dometic absorption cooling units are constructed in carbon steel because of its strength and good welding and cold-working properties. The refrigerant is an ammonia-water solution. The absorption cooling system is a hermetic system, which is pressurised with hydrogen or helium gas. In order to prevent corrosion of the carbon steel cooling system a small amount (about 10 grams/unit) of sodium chromate is added to the refrigerant. Dometic considers that the use of Sodium Chromate as anti-corrosion inhibitor in absorption refrigerators should be exempt from inclusion in Annex XIV and hence REACH Authorization requirement. Dometic takes this position on the grounds that for this specific use of sodium chromate: 1) human and environmental health risks are adequately controlled by existing EU legislation – article 4(2)(a)of Directive 2000/53/EC on End-of Life Vehicles and article 4(1) of Directive 2002/95/EC restricting the use of hazardous substances in electrical and electronic equipment (RoHS); and 2) currently no commercially viable alternatives to the aforementioned use of sodium chromate are available. At this stage, despite extensive research, there are a number of scientific and technological challenges, which remain to be overcome, and where alternatives to sodium chromate give rise to difficult trade-offs in respect to product lifetime, product reliability and energy efficiency.
900	2011/09/13 11:53 File attached	Company United Kingdom	Sodium chromate is used in specialised products designed to remove tenacious oxide/scale from the surface of metals and to remove paints from the surface of metals. For the aerospace industry it is vital to ensure that such processes have no detrimental effect on the properties of the underlying substrate. Sodium chromate has been proved as an effective cleaning agent that also meets the latter requirements. For these reasons, it is requested that sodium chromate be exempt from the requirements of REACH Annex XIV, for the purposes of cleaning metallic surfaces in the aerospace industry. If this is unacceptable to ECHA, the longest possible sunset dates are requested in order to allow the identification, testing and qualification of suitable alternatives to meet the stringent Quality and Safety requirements of the aerospace industry.

509	2011/07/28 17:02	Southwest Metal Finishing(Chippenham) 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
897	2011/09/13 11:51	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.
899	2011/09/13 11:53 File attached	AIA-CP Company France	utomated processes and enclosed systems in surface treatment should be exempted, as well as activities covered by the IED directive; please see the enclosed letter

1133	2011/09/13 18:25	Agoria Academic Institution 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).

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
874	2011/09/13 11:14 File attached Confidential	Individual Sweden	No comments
1570	2011/09/14 14:35	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.

900	2011/09/13 11:53 File attached	Company United Kingdom	The niche applications of sodium chromate that are not classified as safety critical, and if they cannot be considered for exemption from the requirements of Annex XIV, should be subject to review after a suitable period of 2 years, to establish whether suitable alternatives have been introduced or whether additional time is still required
1224	2011/09/14 00:51	KLM Engineering & Maintenance Company Netherlands	The niche applications of sodium dichromate that 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
956	2011/09/13 14:18	Lufthansa Technik Aktiengesellschaft Company Germany	The niche applications of sodium dichromate that 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, 4 years, to establish whether suitable alternatives have been introduced or whether additional time is still required