

2016-02-15

COMMUNICATION TO THE AEROSPACE SUPPLY CHAIN: UPDATE ON REACH AUTHORISATION FOR CHROMATES

About ASD

ASD represents the Aeronautics, Space, Security and Defence industries in Europe. Based in Brussels, the organisation's membership today comprises 15 major European aerospace and defence companies and 26 member associations in 19 countries (Austria, Belgium, Bulgaria, the Czech Republic, Denmark, Finland, France, Germany, Greece, Italy, the Netherlands, Norway, Poland, Portugal, Spain, Sweden, Switzerland, Turkey and the UK). These industries reach a turnover of 197.3 billion euro, invest 20 billion euro in R&D, employ close to 778,000 people and counts over 3000 companies, 80,000 suppliers, many of which are SMEs.

Background

According to the REACH regulation¹, the use of some chromates² will be banned in Europe from September 2017 unless a specific Authorisation has been granted for a specific use and a specific chemical supply-chain, for a limited time period, and for the specific cases where no suitable alternatives can be implemented before the Sunset Dates.

Applications for Authorisation currently being prepared

Applications for Authorisation have therefore been prepared by some industrial consortia for some Aerospace uses of some chromates.

Due to the nature and complexity of the Aerospace supply chain, a top-down approach based on Applications for Authorisation submitted by the chemical suppliers (i.e. substance Manufacturer or Importer or Formulator) and prepared with strong support from end-users (since they have knowledge on potential alternatives and associated impacts) has been applied³.

The following dossiers have been prepared:

- Applications for Authorisation have been prepared by the CTAC consortium for some uses of **chromium trioxide**. These applications have been submitted to ECHA in May 2015 by the CTAC-Sub consortium.
- Applications for Authorisation have been submitted to ECHA in November 2015 by the CCST consortium for some uses of **other chromates**⁴.
- Other Applications for Authorisation may be in preparation.

Some Original Equipment Manufacturers have compiled through CTAC and CCST a list of specific applications using substances of concern in certain end-users designs that require Authorisation. They will not be seeking Authorisation for those substances in all uses.

Each company in the supply-chain should in any event check with its chemical suppliers whether Authorisation is being sought for substance(s) and for which use(s) to ensure that it will be covered as needed.

Please find attached the related press releases and a summary table in which you will find more details about the uses and **the list of companies (legal entities) which have applied** for an Authorisation with the support of the CTAC and CCST consortia, as well as the link to the dossiers published on the ECHA website.

¹ REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

² Please refer to REACH Annex XIV for the comprehensive list of substances and their respective Sunset Dates and Latest Application Dates.

³ Due to the nature and complexity of the Aerospace supply chain, an Application for Authorisation in any other format than these upstream applications would have extremely limited benefit and result in an unacceptably high risk of supply-chain disruption, since an end-user can apply for his uses but not for uses upstream in the supply chain e.g. formulations or sub-contracted activities.

⁴ Dichromium tris (chromate); Potassium dichromate; Sodium dichromate; Strontium chromate; Potassium hydroxyoctaoxodizincatedichromate.

Some consequences for the supply chain

Original Equipment Manufacturers expect that the suppliers in all levels of the supply-chain manage their own solutions on substances of concern to comply with legislation and prevent supply chain disruption.

According to the REACH regulation, the granted Authorisation for specific use(s) will only apply to the chemical suppliers that are applicants for the Authorisation and their downstream supply-chain. It will not apply to other chemical suppliers which have not applied for an Authorisation.

Therefore, after the sunset date, downstream users will not be allowed to use in the EEA⁵ substances and formulations supplied by a chemical supplier which is not covered by a granted Authorisation.

Therefore, any company (for example -but not limited to- subcontractors) will only be covered by the Authorisation for a specific use if (for each legal entity) the three following conditions are met:

- **The use of the substance by this company falls under the authorised use definition;**
- **The company is supplied by a chemical supplier covered by the Authorisation;**
- **The company complies with the workplace safety and environmental requirements described in the Chemical Safety Report which is included in the Application for Authorisation, as well as with any specific conditions which may be associated to the Authorisation. Please see more details below.**

Each company therefore needs to check that the Annex XIV substances⁶ and products containing Annex XIV substances which it uses, and for which there is no certified/approved suitable alternative, will be covered by an Authorisation.

Downstream users which do not fall under the use defined in the upstream Authorisation will need to find other solutions, e.g. file their own Application for Authorisation, but will also need to ensure that all levels of their upstream supply chain also apply for or are covered by Authorisation for their uses to avoid supply chain disruption.

Downstream users which fall under the use definition but are not supplied by an authorised source will need to find other solutions, e.g. change their means of supply or ask their supplier to submit or ensure that it is covered by an Application for Authorisation. Particular care should also be taken with Formulations (non-European as well as European ones).

Each company may need to engage with its suppliers to monitor their plans with regards to Authorisation.

Certain requirements after an Authorisation has been granted

If an Authorisation is granted for a specific use, chemical suppliers which are upstream applicants shall include the Authorisation number on relevant labels, and update the Safety Data Sheets with the specific set of conditions defined in the Authorisation.

All companies that may be permitted under the Authorisation regime to use a substance - must, in addition to other applicable legal requirements, **comply with the conditions of the Authorisation specified by the European Commission**. These conditions may include safety and environmental

⁵ EEA: European Economic Area

⁶ Please refer to REACH Annex XIV for the comprehensive list of substances and their respective Sunset Dates and Latest Application Dates.

protection measures such as, but not limited to, engineering controls, personal protective equipment and emissions and exposure monitoring.

Please refer to the workplace safety and environmental requirements described in the Chemical Safety Reports which are included in the Applications for Authorisation. These documents are available on the ECHA website from the start of the Public Consultations. The CTAC and CCST documents are publicly available on the ECHA website (see links in the Annex).

Particular attention should be paid to the fact that the Authorisation conditions may be more stringent than current requirements.

Downstream users which are continuing using the substance under the Authorisation regime - must make a **notification of this use to ECHA within three months of the first supply of the substance** {REACH Art. 66(1)}. Such notifications will be kept in a register maintained by ECHA and will be made available to the national Authorities.

Please note that it could take up to two years or more after the submission to get to a final decision on the Authorisation. The submission of an Authorisation dossier does not guarantee the granting of the Authorisation. If an Authorisation is granted it may be time-limited and shorter than the requested duration. Substitution must always be the first priority wherever possible.

ANNEXES

Press releases of CTAC and CCST

Summary table

- including lists of substances, uses and companies (legal entities) which have applied for an Authorisation.

This [note] should not be considered as providing advice on REACH or its interpretation. The reader should refer to the official websites of, e.g., ECHA (the European Chemicals Agency) for information on and the provisions of REACH discussed in this [note], for example:

<http://echa.europa.eu/regulations/reach>

<http://echa.europa.eu/web/guest/regulations/reach/authorisation/applications-for-authorisation>

Annex 1 – Summary table (page 1/4)

Consultation number on ECHA website	Substance	CAS number	Applicants	Use name	Dossier on ECHA website
0032-01	Chromium trioxide	1333-82-0		Formulation of mixtures	Link
0032-02	Chromium trioxide	1333-82-0		Functional chrome-plating	Link
0032-03	Chromium trioxide	1333-82-0		Functional chrome-plating with decorative character	Link
0032-04	Chromium trioxide	1333-82-0	<ul style="list-style-type: none"> • Lanxess Deutschland GmbH in its legal capacity as Only Representative of LANXESS CISA (Pty) Ltd. • Atotech Deutschland GmbH • Aviall Services Inc • Bondex Trading LTD, in its legal capacity as Only Representative of Aktyubinsk Chromium Chemicals Plant, Kazakhstan • Cromital S.P.A. in its legal capacity as Only Representative of Soda Sanayii A.S. 	Surface treatment for applications in the aeronautics and aerospace industries, unrelated to Functional chrome plating or Functional chrome plating with decorative character	Link
0032-05	Chromium trioxide	1333-82-0	<ul style="list-style-type: none"> • Elementis Chromium LLP in its legal capacity as Only Representative of Elementis Chromium Inc • Enthone GmbH 	Surface treatment (except passivation of tin-plated steel (ETP)) for applications in various industry sectors namely architectural, automotive, metal manufacturing and finishing, and general engineering (unrelated to Functional chrome plating or Functional chrome plating with decorative character)	Link
0032-06	Chromium trioxide	1333-82-0		Passivation of tin-plated steel (ETP)	Link

Communication

ASD Contact : Anneli Weinhold

Annex 1 – Summary Table (page 2/4)

Consultation number on ECHA website	Substance	CAS number	Applicants	Use name	Dossier on ECHA website
0045-01				- Formulation of mixtures	Link
0045-02	Dichromium tris(chromate)	24613-89-6	<ul style="list-style-type: none"> • Henkel AG & Co. KGaA • Henkel Global Supply Chain B.V. 	<ul style="list-style-type: none"> - Use of dichromium tris(chromate) for surface treatment such as aluminium, steel, zinc, magnesium, titanium, alloys, composites, sealing of anodic films. 	Link
0044-01				- Formulation of mixtures	Link
0044-02	Potassium dichromate	7778-50-9	<ul style="list-style-type: none"> • Brenntag UK Ltd 	<ul style="list-style-type: none"> - Use of potassium dichromate for surface treatment such as aluminium, steel, zinc, magnesium, titanium, alloys, composites, sealing of anodic films. 	Link

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0043-01				- Formulation of mixtures	Link
0043-02	Sodium dichromate	10588-01-9	<ul style="list-style-type: none"> • Brenntag UK Limited • Henkel AG & Co. KGaA • AD International B.V. 	- Use of sodium dichromate for surface treatment such as aluminium, steel, zinc, magnesium, titanium, alloys, composites, sealing of anodic films.	Link
0043-03				- Use of sodium dichromate for the electrolytic passivation of tin plated steel for the packaging industry.	Link
0046-01			<ul style="list-style-type: none"> • AKZO Nobel Car Refinished B.V. • Habich GmbH • Henkel Global Supply Chain B.V. • Indestructible Paint Ltd. • Finalin GmbH • Mapaero 	- Formulation of mixtures	Link
0046-02	Strontium chromate	7789-06-02	<ul style="list-style-type: none"> • PPG Central (UK) Ltd in its legal capacity as Only Representative of PRC DeSoto International Inc. – OR5 • PPG Industries (UK) Ltd • PPG Coatings SA • Aviall Services Inc 	- Application of paints, primers and specialty coatings containing Strontium Chromate in the construction of aerospace and aeronautical parts, including aeroplanes / helicopters, spacecraft, satellites, launchers, engines, and for the maintenance of such constructions.	Link

0047-01			<ul style="list-style-type: none">• PPG Industries (UK) Ltd• Finalin GmbH• PPG Central (UK) Ltd in its legal capacity as Only Representative of PRC DeSoto International Inc. – OR5• PPG Coatings SA• Aviall Services Inc	<ul style="list-style-type: none">- Formulation of mixtures	Link
0047-02	Potassium hydroxyoctaoxo dizincatedichromate	11103-86-9	<ul style="list-style-type: none">• PPG Industries (UK) Ltd• Finalin GmbH• PPG Central (UK) Ltd in its legal capacity as Only Representative of PRC DeSoto International Inc. – OR5• PPG Coatings SA• Aviall Services Inc	<ul style="list-style-type: none">- Use of potassium hydroxyoctaoxodizincatedichromate in paints, in primers, sealants and coatings (including as wash primers)	Link

[Annex 2 – CTAC-Sub Press release \(page 1/3\) - Also available under on the Jones Day website](#)

**REVISED
PRESS RELEASE
MAY 28, 2015**

The **CTACSub Consortium** (CTAC Submission Consortium) is pleased to announce that it has started its works. **The CTACSub joint application for authorization has been submitted to ECHA on May 11, 2015.**

CTACSub is a group of seven companies that was created on February 20, 2015 to jointly file applications for REACH authorization for specific industrial uses of chromium trioxide. CTACSub **filed** joint so-called ‘upstream’ applications for authorization for all uses for which draft applications for authorization (common data sets) were developed by the CTAC Consortium (in turn consisting of 150+ companies).

This early (one year before the so-called ‘Latest Application Date’ on March 21, 2016) joint upstream application is destined to assure the market that the major chromium trioxide (formulation) suppliers are well aware that the industrial use of this substance is essential for a large number of industries and that everything will be done so that the downstream users can continue to use chromium trioxide for their current uses provided adequate operational conditions and risk management measures are met. These current uses covered by the joint application are in addition to formulation of mixtures, functional plating, functional plating with decorative character, miscellaneous surface treatment, and passivation of tin-plated steel (for exact definitions, please see below).

In turn, this also ensures that articles and components manufactured using chromium trioxide can continue to be manufactured in and for the numerous sectors that utilize such articles in today’s economy. These sectors include aerospace, architecture, automotive, machinery, packaging, printing and sanitary.

Members of CTACSub are:

- Atotech Deutschland GmbH (formulator)
- Aviall Services Inc. The Netherlands Branch (affiliate of The Boeing Company), (importer of formulations)
- Bondex Trading Ltd. (importer)
- Cromital Spa (OR) (for and affiliate of Soda Sanayii A.S.)
- Elementis Chromium LLP (OR) (for Elementis Chromium Inc.)
- Enthone GmbH (formulator)
- Lanxess Deutschland GmbH (OR) (for Lanxess CISA (Pty) Ltd.) acting as Submitting Applicant for the joint application.

For additional information, please contact the CTACSub Consortium Manager uschliessner@jonesday.com, tel. +32-2-6451460.

ASD represents the Aeronautics, Space, Security and Defence industries in Europe. Based in Brussels, the organisation's membership today comprises 15 major European aerospace and defence companies and 26 member associations in 19 countries (Austria, Belgium, Bulgaria, the Czech Republic, Denmark, Finland, France, Germany, Greece, Italy, the Netherlands, Norway, Poland, Portugal, Spain, Sweden, Switzerland, Turkey and the UK). These industries reach a turnover of 197.3 billion euro, invest 20 billion euro in R&D, employ close to 778,000 people and counts over 3000 companies, 80,000 suppliers, many of which are SMEs.

Annex 2 – CTAC-Sub Press release (page 2/3)**Use Definitions (from Annex 1 of CTAC Consortium Agreement)¹****(1) Formulation of mixtures**

The formulation of chromium-based mixtures in liquid or solid forms using chromium trioxide combined with other chemical substances and/or compounds. The use definition is restricted to formulation for 'placing on the market for...' (e.g. a proprietary coating formulation). This use definition explicitly excludes the subsequent use of the mixtures, because these are considered as covered by Uses (2) – (8).

(2) Functional chrome plating

An industrial use, meaning the electrochemical treatment of surfaces (typically metal) to deposit metallic chromium using a solution containing chromium trioxide (amongst other chemicals), to enhance wear resistance, tribological properties, anti-stick properties, corrosion resistance in combination with other important functional characteristics. Such secondary functional characteristics are chemical resistance, able to strip, unlimited in thickness, paramagnetic, deposit not toxic or allergic, micro-cracked brightness. Process characteristics are closed loop processing, high speed, flexibility in size, plating of inner surfaces, low process temperature, surface can be machined, assemblability. Functional chrome plating may include use of chromium trioxide in pre-treatment and surface deposits unlimited in thickness but typically between 2µm and 5000 µm. Functional chrome coatings are widely used in many industry sectors.

(3) Functional chrome plating with decorative character

The electrochemical treatment of metal, plastic or composite surfaces to deposit metallic chromium to achieve an improvement in the surface appearance, level of corrosion protection and to enhance durability. In functional plating with decorative character, chromium trioxide is used to deposit a coating of typically 0.1-2.0 µm, or, where increased corrosion resistance is required, a 'micro cracked' chromium deposit at thicknesses of typically 0.5 - 2.0 µm, over a nickel undercoat. Functional plating with decorative character may include use of chromium trioxide in a series of pre-treatments and surface deposits. Functional plating with decorative character is used widely in automotive, plumbing, household appliances, bathroom, furniture and homeware applications. Functional plating with decorative character includes black chrome plating provided that there is no residual CrVI on the surface of the article at the detection limit², which has been used, for example, in solar panel manufacture, where deposits are porous and <1 µm in thickness.

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- (4) Surface treatment for applications in the aeronautics and aerospace industries, unrelated to Functional chrome plating or Functional plating with decorative character

This Use includes processes that convert the surface of an active metal or coat metal surfaces by forming/incorporating a barrier film of complex chromium compounds that protects the metal from corrosion and provides a base for subsequent treatments such as painting or bonding. This includes integrated process systems where chromium trioxide is used in a series of pre/main/post-treatments. Pre-treatment includes processes such as chemical polishing, stripping, desodizing, pickling and etching of metals. Main-treatment includes processes such as conversion coatings, passivation and anodizing, deposition and other surface treatments where a chromium trioxide-based solution is used. Post-treatment includes processes such as rinsing, staining and sealing for final surface protection.

- (5) Surface treatment (except ETP) for applications in various industry sectors namely architectural, automotive, metal manufacturing and finishing, and general engineering

This Use includes processes that convert the surface of an active metal or coat metal surfaces by forming/incorporating a barrier film of complex chromium compounds that protects the metal from corrosion, provides a base for subsequent painting, provides a chemical polish, and/or colors the metal. This includes integrated process systems where chromium trioxide is used in a series of pre/main/post-treatments. Pre-treatment includes processes such as chemical polishing, stripping, desodizing, pickling and etching of metals or other materials. Main-treatment includes processes such as conversion coatings, passivation and anodizing, deposition and other surface treatments where a chromium trioxide-based solution is used. Specifically, this includes continuous coil coating of steel and passivation (e.g. zinc plating, copper foils), but not passivation of tin-plated steel. Post-treatment includes processes such as rinsing, staining and sealing for final surface protection.

- (8) Passivation of tin-plated steel (ETP)

¹ Amended and consolidated version December 19, 2014. Use definitions of Use 6 (catalysts) and Use 7 (laboratory) are not repeated here because no draft authorization dossiers have been developed by CTAC for these uses.

² EN 15205 is to be used as the standard of detection of chromium VI. If a Member wishes to use another standard, the Member has to prove that it is equally sensitive.

Annex 3 – CCST Press release (page 1/3) - Also available [on the Jones Day website](#)

PRESS RELEASE
MARCH 13, 2015
- Updated December 10, 2015 -

The **CCST Consortium** (Chromium VI Compounds for Surface Treatment REACH Authorization Consortium), a group of 28 companies that was formed early 2013 to jointly develop draft applications for REACH authorization for use of miscellaneous Chromium VI compounds is pleased to announce that it will soon be concluding its works. The ability to continue using these compounds in the EU is essential for CCST Members as well as their suppliers and customers, which are active in the aeronautics and aerospace sectors, among others.

The CCST Consortium assisted by its consultants Environ UK Ltd and its partner BiPRO GmbH has developed draft applications for REACH authorization for the following uses of specific substances:

Substance	Substance Chemical Name	EC / CAS	Use
S 2	Dichromium tris (chromate)	EC 246-356-2; CAS 24613-89-6	(i) (iv)
S 3	Potassium dichromate	EC 231-906-6; CAS 7778-50-9	(i) (iv)
S 4	Sodium dichromate	EC 234-190-3; CAS 10588-01-9	(i) (iv) (v)
S 6	Strontium chromate	EC 232-142-6; CAS 7789-06-2	(iii) (iv)
S 7	Pentazinc chromate octahydroxide (zinc tetrahydroxide chromate)	EC 256-418-0; CAS 49663-84-5	(ii) (iv)
S 8	Potassium hydroxyoctaoxodizincatedichromate	EC 234-329-8; CAS 11103-86-9	(ii) (iv)

The uses (mainly aimed at aerospace applications) are defined as follows:

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- (i) Surface treatment of metals with Substances S1, S2, S3, S4, and/or S5 such as aluminium, steel, zinc, magnesium, titanium, alloys, composites, sealings of anodic films;ⁱ
- (ii) Use of Substances S1, S7, and S8 in paints, in primer, sealants, lacquers and coatings (including as washprimers);
- (iii) Application of paints, primers, and speciality coatings containing S6 in the construction of aerospace and aeronautical parts, including aeroplanes / helicopters, space craft, satellites, launchers, engines, and for the maintenance of such constructions, as well as for such aerospace and aeronautical parts, used elsewhere, where the supply chain and exposure scenarios are identical;
- (iv) Formulation of mixtures for Uses (i), (ii), (iii) or (v) except on-site formulation for Uses (i), (ii), (iii), or (v) which is considered to be covered by Uses (i), (ii), (iii) or (v);
- (v) Passivation of tin plated steel.

The proposed review period for all uses is 12 years, except passivation of tin plated steel (4 years).

Companies that are not CCST Members who wish to themselves file individual applications for REACH authorization of these uses of the named substances may purchase letters of access for the draft CCST authorization dossier parts (analysis of alternatives, chemical safety report, socio-economic analysis) to adapt and complement them according to their needs. Such letters of access will be available as of April 20, 2015 from the Consortium Manager Jones Day at www.jonesdayreach.com.

In addition, CCST will continue to pursue its work and has built Submission Groups of Consortium Members that will support the filing of (where possible joint) applications for authorization at the upstream level (manufacturer / importer / formulator / Only Representative as the case may be) for the uses of Substances S2, S3, S4, S6 and S8. These Submission Groups have elected upstream applicants in order to cover the complete downstream user chain.

For substances S2, S3, S4, and S6, and S8 these upstream applications for REACH authorization were planned to be filed with ECHA in November 2015.

The following upstream applicants have been earmarked:

Substance	Applicants
S2	Henkel
S3	Brenntag
S4	AD International, Brenntag, Henkel
S6	Akzo Nobel, Aviall, Habich, Henkel, Indestructible Paint, Mapaero, Mankiewicz (Finalin GmbH), PPG
S7	Not yet determined ⁱⁱ
S8 (SG not yet set up)	Aviall, Mankiewicz, PPG

For further general queries, please contact Ursula Schliessner at uschliessner@jonesday.com. Or contact your supplier (see contact information below).

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Contact Details of Suppliers

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Aviall, a Boeing Company	john.dickhoff@aviall.com
AD International BV	reach@adinternationalbv.com
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ⁱ Aerospace specific.

ⁱⁱ No upstream applicant identified within CCST for S7 as yet.