

N°20016/12/GIFAS  
Paris, 19<sup>th</sup> September, 2012

**Subject:** Answer on strontium chromate, dichromium tris(chromate), potassium hydroxyoctaoxodizincatedichromate, pentazinc chromate octahydroxide

**Y/Ref:** Public consultation issued on 20<sup>th</sup> June 2012 on ECHA's 4<sup>th</sup> recommendation of priority substances to be included in Annex XIV

Dear Sir,

The European Chemicals Agency (ECHA) published a draft recommendation of 10 priority substances for inclusion in the list of substances subject to authorisation (Annex XIV). This letter constitutes the GIFAS (French aerospace industries association)<sup>1</sup> response regarding the following substances:

- **strontium chromate** – CAS number 7789-06-2
- **potassium hydroxyoctaoxodizincatedichromate** – CAS number 11103-86-9
- **pentazinc chromate octahydroxide** - CAS number 49663-84-5
- **dichromium tris(chromate)** – CAS number 24613-89-6.

The Aerospace Industry has been working for years towards a voluntary eradication of some of the most hazardous substances. In particular, chromate eradication policies have been set up amongst the main companies with related substitution roadmaps and collective mobilization of the entire sector. Considering, in particular, the recognized adverse long-term effects of these substances, appropriate efficient controls have been put in place accordingly to best protect and comply with the Environment and Health/Safety requirements, thanks to the relevant corporate strategies of our companies. However, we would like to highlight the specific use of these 4 above mentioned substances in the aerospace and defence areas for which no known Chrome VI validated alternative options are currently available.

These 4 substances are used in limited quantities (marginal in comparison to the other sectoral uses). They are essential for the manufacturing of our products and are used as mentioned below and already outlined in the previous consultations and Annex XV dossiers:

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<sup>1</sup> GIFAS has 300 members from major prime contractors and systems suppliers to SMEs. The French Aerospace sector comprises 162 000 direct employees and its turnover exceeds € 37 billion.

**Mr Geert Dancet**  
**Executive Director**  
**European Chemicals Agency (ECHA)**  
P.O BOX 400  
00121 HELSINKI  
FINLAND

Copy: *directly to the ECHA website*

Substance	CAS n°	Use
Strontium chromate	7789-06-2	Adhesive bonding primers, Anti-corrosion interlay sealing compound Epoxy primers Paint primers
Potassium hydroxyoctaoxodizincatedichromate	11103-86-9	Anticorrosive primer paints, wash primers for aluminium, steel or anodized aluminium substrates.
Pentazinc chromate octahydroxide	49663-84-5	Wash primers and jointing compounds (sealants) for aluminium, steel or anodized aluminium substrates
Dichromium tris(chromate)	24613-89-6	In “ready-to-use” stick used in chemical conversion treatment of aluminium alloys against corrosion , Preparation before painting and refinishing after treatment of corrosion, local corrosion protection in aircraft maintenance

The uses of these chromates are crucial for all the critical parts as they provide the relevant anti-corrosion characteristics in particular for some touch-ups in the “hard-to-reach” parts of the aircraft. No alternative chromium VI free options are fully mature up to now, despite many years of intensive research and mobilization of our sector worldwide. Implementing an alternative solution requires stringent, long and intensive testing for qualification (reliability, test programmes) and the supply chain adaptation prior to being fully effective. Moreover, the need to maintain, in operational conditions, the various programmes throughout their life-cycle (30<sup>+</sup> years) is mandatory with regards to safety obligations, which cannot be compromised, and certification obligations (EASA and FAA)<sup>2</sup>.

This new recommendation raises a specific and serious concern as it follows the 3<sup>rd</sup> Annex XIV list which should include 5 chromates already seriously impacting the aerospace applications in particular regarding these anticorrosion characteristics that the whole systems must globally respect.

Technically when qualifying an anticorrosion system, the whole system shall be considered. Even if the various layers and required protections (anodization, wash primer, primer, top coat) are individually qualified, the whole multilayer system shall meet the relevant anti-corrosion characteristics. Long (several years) and complex exposures and cycles representing severe climatic conditions (-55°C to 130°C) are necessary to validate the developed options.

As a consequence, there is a link between the 3<sup>rd</sup> Annex XIV recommendation using substances processes and products and the 4<sup>th</sup> recommendation to ensure the complete compatibilities of the options and the ultimate characteristics to meet. The choice of substitution process for the anodizing of aluminium (which requires the use of chromium trioxide) will drive the choice of alternatives to the current strontium chromate containing coating. Due to this link, and because the selection of substitution solutions for the 3<sup>rd</sup> Annex XIV recommendation has not yet been achieved the effective testing of options to substitute the 4<sup>th</sup> recommendation substances will not start before this date.

<sup>2</sup> EASA = European Aviation Safety Agency; FAA = Federal Aviation Administration

Additionally, both substitution plans (3<sup>rd</sup> and 4<sup>th</sup> recommendations substances) involve similar expertise which is impossible to duplicate within companies.

The substitution of the 3<sup>rd</sup> recommendation and 4<sup>th</sup> recommendation substances must be sequential. The search for alternatives to the 4<sup>th</sup> recommendation substances requires a strong involvement of formulators. As these companies (paint producers) are often from US and competitors, their necessary implication will make the establishment of the authorization dossiers even more complicated than for the 3<sup>rd</sup> recommendation substances due to major antitrust and intellectual properties issues to be managed.

The pressure caused by short deadlines in the authorization process may discourage some suppliers and particularly SMEs: possibly inducing disruptions of the supply chain with major detrimental consequences over the various stages of our business. The implementation of the substitution roadmaps must be carefully, progressively and sequentially made, on a step-by-step approach, once alternatives are validated to ensure relevant lessons learned prior to generalization.

Once again, we highlight our full commitment to comply with REACH requirements. However, the elimination of these 4 substances would require substantial ultimate efforts, due to the complexity of the authorization process with a complex supply chain involving many SMEs.

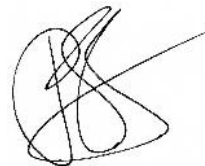
Therefore, in line with the response from our European Federation (ASD<sup>3</sup>) which we fully support, we request ECHA to grant a minimum of 60 months between publication and the latest application date. This should be set well after the chromates in the 3<sup>rd</sup> recommendation in any case and remains crucial to maximize the potential to deploy alternatives from existing development programmes.

We remain at your disposal for any information you may require.

Yours faithfully,

A handwritten signature in black ink, appearing to be "Br." or "Cz.", written in a cursive style.

**Bruno COSTES**  
Chairman of the GIFAS Environment &  
Sustainable Development Commission

A handwritten signature in black ink, appearing to be "PSB", written in a cursive style.

**Pierre-Stéphane BENATI**  
GIFAS REACH Working Group Leader

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<sup>3</sup> ASD represents the Aeronautics, Space, Security and Defence industries in Europe. These industries, in turn, generate a turnover of approximately 163 billion euros, employ some 700,000 people and encompass over 2,000 companies and 80,000 suppliers, many of which are SMEs.