

Atotech Deutschland GmbH • Postfach 21 07 80 • 10507 Berlin

Date 08.08.2014

Atotech Customer Information on Chromium Trioxide authorization under REACH – update August 2014

Dear Customer,

In addition to our general customer information on REACH from December 2012 we would like to update you on the topic of chromium trioxide authorization.

Atotech is a member of the industry consortium named CTAC (Chromium Trioxide Authorization Consortium) which has been established to prepare the authorization of chromium trioxide.

For us it is important to support, together with our customers, applications of chromium trioxide that are without alternative at present. CTAC will finish its work by the end of this year.

However, it is not the aim of CTAC <u>to apply</u> for authorization. Hence the formation of a new consortium, consisting mainly of the importers of chromium trioxide, the suppliers of the raw material, is planned for end of 2014. Works of this new consortium are planned to be finished within 2015, well ahead of the latest application date of March 21, 2016.

According to Article 56 REACH the first member in a supply chain can apply for authorization for all uses and share a granted authorization with all downstream users.

The new consortium will make use of the aforementioned fact and apply for all CTAC uses (please see uses relevant for our customers in the <u>Annex 1</u>) so that in the end all functional and decorative chrome customers of Atotech are covered under authorization without having the need for applying by themselves (see the <u>Annex 2</u>).

All of our suppliers are willing to participate in this new consortium. Consequently there is no reason for Atotech to join the consortium. A participation would result in unnecessary extra-costs for the downstream users in the supply chain.

The authorization is a substitution process; at the end it is the authority's aim to ban chromium trioxide from the EU market. This will happen sooner for some technologies and later for others.

President: Reinhard Schneider Company Headquarters: Berlin, HRB Nr. 51451 Tax Nr. DE 159 339 065 UniCredit Bank AG Bank Code: 100 208 90; EUR Account Number: 9 336834 S.W.I.F.T.-BIC: HYVE DE MM 488 · IBAN: DE84 1002 0890 0009 3368 34 USD 894335610; HKD 894335629; CAD 894335637; JPY 894335645



We have and are investing strongly in extensive research programs to develop chromium-(VI)-free solutions. Currently we can offer the following high-performance solutions for decorative and corrosion resistant coatings:

- TriChrome® production proven processes providing a range of bright and satin finishes, fulfilling OEM specifications
- Chromium-(VI)-free passivates, sealers and top coats for corrosion protection coatings with transparent, blue, iridescent or black finishes on zinc and zinc-alloy coatings.

Atotech is prepared for the future, in case you are interested in further details on chromium trioxide free processes please get in contact with your Atotech sales representative.

Best regards,

Atotech Deutschland GmbH



Annex 1 – Use definition according to CTAC

(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) - (7).

(2) Functional chrome plating

An industrial use, meaning the electrochemical treatment of surfaces (typically metal or plastic) 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 a series of pretreatments and surface deposits unlimited in thickness but typically between 2µm and 5000 µm. Functional chrome coatings are widely used in many industry sectors.

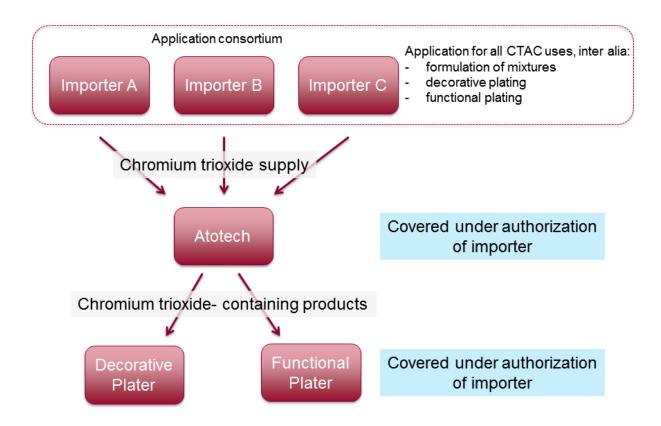
(3) Decorative Plating ('Functional plating with decorative character')

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 decorative plating, chromium trioxide is used to deposit a coating of typically 0.1- 2.0 μ m, or, where increased corrosion resistance is required, a 'micro cracked' chromium deposit at thicknesses of typically 0.5 - 2.0 μ m, over a nickel undercoat. Decorative chrome plating may include use of chromium trioxide in a series of pre-treatments and surface deposits. Decorative plating is used widely in automotive, plumbing, household appliances, bathroom, furniture and homeware applications. Decorative plating includes black chrome plating, which has been used, for example, in solar panel manufacture, where deposits are porous and <1 μ m in thickness.

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Annex 2 – Application approach supported by importers represented in CTAC



→ win-win-situation for all: least costs, maximum effect

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