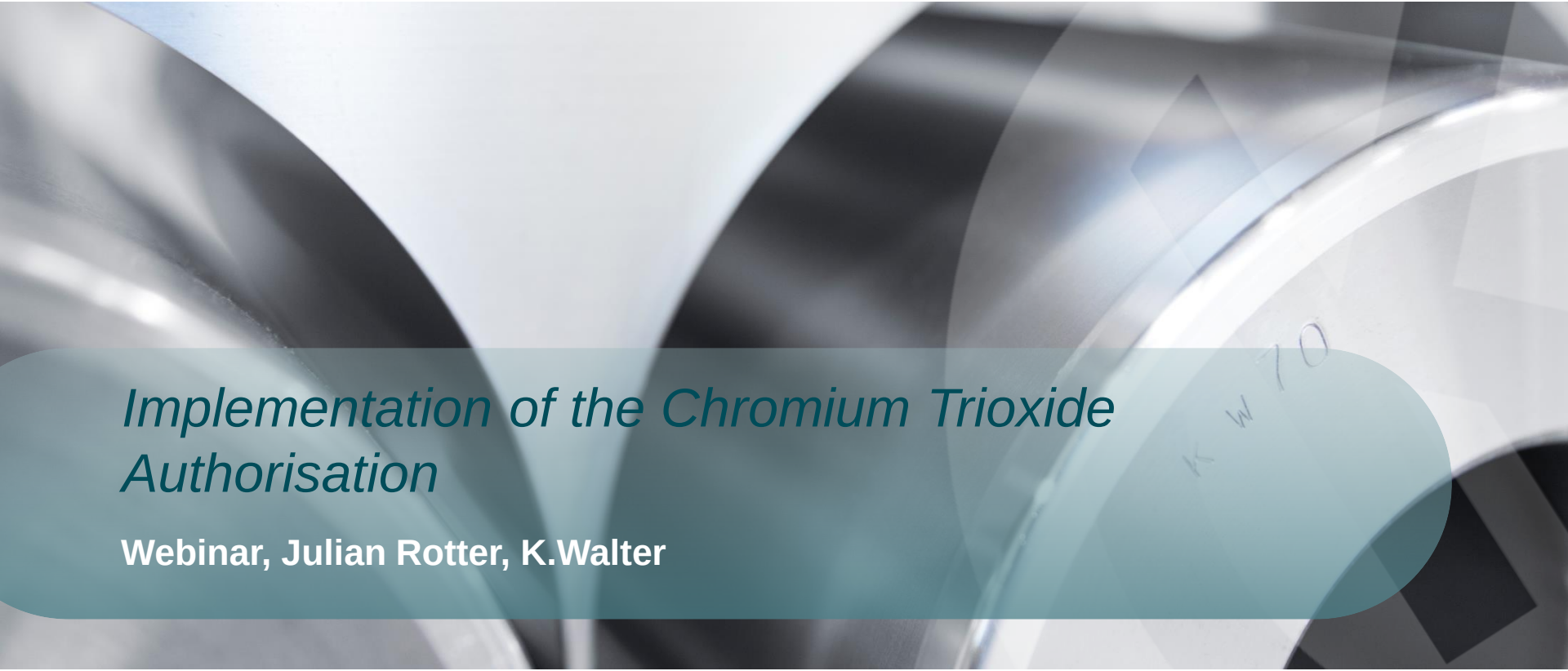


Implementation of the Chromium Trioxide Authorisation

Webinar, Julian Rotter, K.Walter

CHROMIUM TRIOXIDE – Substance of Very High Concern

CrO_3 listed in REACH Annex XIV and requires an authorisation to be used in the European Economic Area

The use in gravure printing is now covered by the CTAC authorisation

Chromium trioxide purchased from K.Walter is covered under this authorisation

Agenda

1. Authorisation Decision Conditions

2. Implementation of CTAC
    1. Timeline
    2. Notifying ECHA – Input for REACH-IT
    3. Extended Safety Data Sheets
    4. Exposure Measurements
    5. Reporting

3. Plating beyond 2024: ChromeXtend

1. Authorisation Decision Conditions

- Duties of K.Walter
  - Sending you new SDS containing updated exposure scenarios and Risk management measures (RMM) until 18 March 2021. *You are responsible for having these updated SDS available, please approach us or your supplier if you did not receive anything by this date.*

  - Sending you new labels for your existing IBCs. You are not allowed to use any container with chromium trioxide without the authorisation number. *You will get them through your local supplier.*

1. Authorisation Decision Conditions

- Duties of Downstream Users
  - Register with ECHA that you are using chromium trioxide until 22 March 2021
  - Implement all Risk Management Measures
  - Implement an annual program for workplace and environment exposure measurements and conduct first measurements until 18 June 2021
  - Report measurements through your REACH-IT account to ECHA until 18 December 2021

2.1 Timeline

- 18 March 2021
  New SDS from your supplier
- 22 March 2021
  Register your company via REACH-IT
- 18 June 2021
  Perform workplace and emission measurements
- 18 December 2021
  Report measurement results to ECHA via REACH-IT
- Annual measurements
- 21 September 2024
  Final day of authorisation

2.2 Notifying ECHA – Input for REACH IT

- Set up a REACH-IT account
  - Login
  https://reach-it.echa.europa.eu/reach/

  - A tutorial on how to set up your account and how to register can be found here:
  https://www.youtube.com/watch?v=N-IGhimWBKs
  English, with subtitles available in many languages

  - Submitting a notification:
  → Select Downstream user notification of authorised uses
  → Prepare and submit online in REACH-IT

2.2 Notifying ECHA – Input for REACH IT

- Downstream User Dossier preparation (Article 66 notification)
  - Name dossier (such as HelioChrome Rapid…)
  - Search for your authorisation number:
    - HelioChrome Rapid products: **REACH/20/18/13**
    - HelioChrome Classic products: **REACH/20/18/7**
    - Liquid Chrome Solution: **REACH/20/18/10**

    If you have several suppliers, you must file additional notifications
  - All information marked in red must be given
    e.g. measurement data, **key functionalities** (justification for use of CrO_3)
  - Other information is voluntarily (annual tonnage, description of use, R&D for substitution,…)

2.2 Notifying ECHA – Input for REACH IT

- Example of key functionalities for hard chrome plating in rotogravure and embossing for "*Further description of your use*"
  - Wear resistance: Low loss of material under friction or stress. Prevents failures, allows for consistent performance and long life-times
  - Hardness: Resistance to high mechanical stress during printing/embossing
  - Controllable layer thickness: Directly correlates to other key functionalities. Gravure cylinders are manufactured to precise circumferences
  - Corrosion resistance: Closed chromium surface to protect underlying copper layer from corrosion due to humidity, oxygen or chemicals
  - Coefficient of friction: Tribological properties of the chromium surface suit the system of printing inks, doctor blades and substrates
  - Surface Morphology: Good reproduction of underlying engraved surface. Number and extends of surface cracks have an influence on printing performance and friction

2.3 Extended Safety Data Sheets (eSDS)

Additional content of updated eSDS

- Authorisation number
- Description of exposure scenarios
- Risk management measures
- Protective gear requirements
- Needed qualifications
- Personnel restrictions
- Exposure control and measurements

2.4 Exposure Measurements

Exposure measurements are used by ECHA to validate the data given in the authorisation decision. The authorities can check and compare whether emissions of chromium trioxide are being minimised as best as possible.

- You must make this data available to ECHA and to your national authorities if requested.
- Measurements must be conducted by a certified company.

Your current measurement protocols will most likely not suffice

First measurements need to be conducted by 18 June 2021

2.4 Exposure Measurements

You must conduct personal, static, exhaust (chimney) and wastewater measurements, biomonitoring (optional)

Measurements must be

- based on standard methodologies and protocols.
- representative of all tasks where an exposure to chromium trioxide is possible.
- representative for the risk management measures you have implemented

There is no detailed guidance on how to perform these measurements.
Best practice information available here, especially E1-3bis
https://jonesdayreach.com/substances/

2.4 Exposure Measurements

A guidance:

- During which tasks can an exposure to chromium trioxide occur?
- How many workers are involved over how many hours?
- Think of how to conduct representative measurements (e.g. simulate an electrolyte correction, duration of task, how often)

<u>You should typically conduct the following measurements:</u>

1.	Normal Operation:	Static measurement; Personal measurement
2.	Delivery and Storage:	Static measurement
3.	Changing IBCs:	Personal measurement
4.	Adjusting bath concentration:	Personal measurement
5.	Maintenance:	Personal measurement
6.	Sampling:	Personal measurement
7.	Laboratory:	Personal measurement

Additionally: Exhaust air, wastewater, Biomonitoring (blood or urine total Cr concentration; optional)

2.3 Exposure Measurements

Example:

A company with 2 chromium plating lines in 2 separated areas. Both plating lines have similar plating equipment, e.g. Slimline machines but with 5 years age difference. Area 1 has 1 chimney, area 2 has 2 chimneys for exhaust air. Wastewater is treated through 1 central water distillation plant. Wastewater sludge is filled into an IBC. Chemistry is supplied through pumps from a central supply area. One laboratory for wetting agent analysis.

How to measure:

- 5 **static measurements**: One for each area + storage area + wastewater + laboratory
- 2 or 3 **exhaust air measurements** during one shift. Are all 3 chimneys connected to the chromium bath ventilation?
- **Wastewater**, if some distilled process water is drained.
- **Biomonitoring** for several workers (2 – 3 workers with highest exposure preferred, optional)

- **Personal measurements** can be independent of which line, since both have similar equipment and procedures: Normal Operation (2 – 3), changing IBCs (≥ 1), adjusting bath concentration (≥ 1), maintenance (≥1), sampling (≥1), laboratory (≥1), exchanging wastewater sludge IBC (≥1)

2.4 Reporting

- First report must be filed until **18 December 2021**
- Annual reportings are filed through REACH-IT

- Templates can be found on the JonesDay (lawyer of CTAC) Website under https://jonesdayreach.com/substances/
→ Good practice sheets E2bis and E3bis

- Or as an excel template directly from ECHA: https://echa.europa.eu/documents/10162/22979809/tmpl_reporting_occupational_exp_data_du_en.xlsx/84ef3203-4294-75c8-3b79-9c024abc2bcd

2.4 Reporting

- Internal documentation of compliance with the authorisation
  - In case of an inspection have the following information available:
    - A copy of your submitted ECHA REACH-IT registration
    - Exposure scenarios and implemented risk management measures
    - Company specific exposure scenarios and evaluation of numbers of workers and hours involved in tasks
    - Results of workspace exposure and emission measurements
    - Information on methodology used during measurements
    - Information on exhaust and water treatment equipment / servicing

In a special enforcement project, ECHA has announced to increase compliance inspections in 2021.

Chromium plating beyond 2024?

Application by K.Walter for rotogravure and embossing specific authorisation

- Representing the whole European rotogravure and embossing industry

  117 European production sites covered by a full supply chain application

- Authorisation filed for 12 years
- Completely funded by K.Walter
- Supported by the data from the downstream users
- Authorisation was filed 22 February 2021

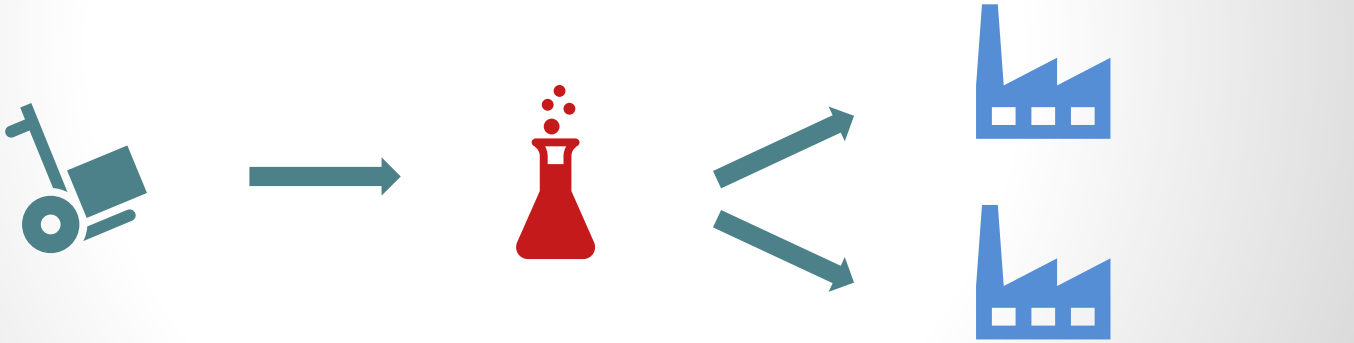
Advantages of industry-specific authorisation

- Consequences of a refused authorisation can be laid out more precisely
- Specific analysis of alternative technologies possible
- Process is described once and is transferable to all companies
- Problem CTAC/CTAC-Sub2:
  - different industries must be reviewed collectively in one application
  - Uncertainties in other industries also affect gravure printing
  - Safety standards in gravure printing much higher than in other areas

Supply chain design

Rotogravure and embossing industry will be independent of other authorisations

Maximum production security for downstream users



Importer
K.Walter

Formulators

Downstream Users
Printer / Service House

Thank you for your attention!