



Press Contact:

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PRESS RELEASE

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Amendment of the REACH regulation for chromium trioxide

The REACH Regulation 1907/2006 was introduced in 2006 to protect people and the environment from hazardous substances in a more targeted and comprehensive manner than before and to regulate the handling of chemicals in the European Union.

Every company that uses chemical substances in production is affected by the regulation. Chromium(VI) oxide is used in a very wide range of applications and has long been regulated by the REACH Regulation. This substance is used in a variety of surface treatments.

The use of Chromium(VI) compounds for functional chromium coatings with a decorative character is likely to be banned in the foreseeable future. Numerous industries are directly (e.g. electroplating) or indirectly (e.g. mechanical engineering) affected by these restrictions. As a manufacturer of connectors, ODU has tackled this problem and reports on its approach.

Interview with Mark Bingham – Head of Product Management Circular Connectors at ODU GmbH & Co. KG.

1. Companies must comply with the REACH Regulation. In which areas does this apply to you as a manufacturer of connectors?

Our circular connectors are given a surface treatment that not only provides a very attractive appearance, but also meets a range of mechanical and electrical requirements. This finishing process is largely responsible for the quality and durability of our products and is carried out in our in-house electroplating facility.

Treatment with hexavalent chromium solutions (chromic acid H₂CrO₄) is common across



many industries. Our circular metal connectors (MINI-SNAP®), which are primarily used in industrial, test & measurement or medical applications were also subjected to these solutions within the process of decorative surface handling. Researchers claim that exposure to hexavalent chromium compounds can have an adverse health effect on humans. The REACH Regulation requires the protection of employees in the workplace. Therefore, since the so-called "sunset date" on September 21, 2017, Chromium(VI) may no longer be used in finishing in accordance with the REACH Regulation. Applications for exceptions have so far been under review. For decorative surfaces, this approval or exemption application is expected to expire in the foreseeable future.

2. What special properties does chrome have that make it suitable for use in your production?

Our connectors can withstand a very high number of mating cycles and must be corrosion-resistant and, for the medical sector, also autoclavable or resistant to wipe disinfectants. The surface treatment must ensure and enable the electrical and mechanical properties. The mechanical service life can be significantly influenced by the choice of surface treatment.

3. Due to the current circumstances, you are in danger of being subjected to a ban in the medium-term. What are you going to do about it?

We looked into the issue at an early stage and found a very good alternative. A switch has been made to a Chromium(VI)-free electrolyte. The new electrolyte selected for the chrome treatment has resulted in a surface which has proven to be at least equivalent or even better in all tests of the valid product specifications.

As a replacement for the black chrome surface, we have opted for a tin-nickel finish. This surface has been tried and tested for many years with other ODU product ranges.

4. Which tests did you carry out on the new matt chrome surface?

The tests included the number of mating cycles, the electrical properties, salt spray testing and corrosion resistance, autoclavability and the visual appearance (coloring). The results were very convincing.

5. How did you manage the migration to the new decorative surface?

We have expanded our capacities with an additional turning shop and a new electroplating facility. Commissioning has already taken place and everything is up and running.

Migration to the new surface handling processes in the production has been completed.

We have stopped all production processes where Chromium(VI) was previously used.

6. Does the change have an impact on customers?

No, our customers continue to receive our products in top quality and the warranty claims



remain unaffected. We are prepared and are already Chromium(VI)-free. Our entire production has already been converted. If the ban comes into force tomorrow, our supply chain will remain intact and our customers will not notice anything.

ODU Group: global representation with perfect connections

The ODU Group is one of the world's leading suppliers of connector systems, employing 2,700 people around the world. In addition to its company headquarters in Muehldorf a. Inn (Germany), ODU also has an international distribution network, production and product development sites in Sibiu/Romania, Shanghai/China, Tijuana/Mexico and Camarillo/USA. ODU combines all relevant areas of expertise and key technologies including design and development, machine tooling and special machine construction, injection, stamping, turning, surface technology, assembly and cable assembly. The ODU Group sells its products globally through its sales offices in Austria, China, Denmark, France, Germany, Hong Kong, Italy, Japan, Korea, Sweden, UK and the US, as well as through numerous international sales partners. ODU connectors ensure a reliable transmission of power, signals, data and media for a variety of demanding applications including medical technology, military and security, automotive, industrial electronics, and test and measurement.