20 DECEMBER 2011

ANNEX II TO RESPONSES TO COMMENTS DOCUMENT (RCOM) ON ECHA'S DRAFT 3RD RECOMMENDATION FOR THE GROUP OF RECOMMENDED COBALT(II) SUBSTANCES - COMMENTS ON COBALT DICHLORIDE (EC NUMBER: 231-589-4)

THIS DOCUMENT PROVIDES THE COMMENTS RECEIVED ON COBALT DICHLORIDE DURING THE PUBLIC CONSULTATION ON THE 3RD DRAFT RECOMMENDATION FOR INCLUSION OF SUBSTANCES IN ANNEX XIV OF REACH WHICH TOOK PLACE BETWEEN 15 JUNE AND 14 SEPTEMBER 2011. ECHA'S RESPONSES TO THESE COMMENTS ARE PROVIDED IN THE ABOVE MENTIONED RCOM DOCUMENT.

N.B.: All public attachments are provided in a separate zip-file available on ECHA's website (attachments claimed confidential are not provided with the public version of this compilation of comments received).

I - GENERAL COMMENTS ON THE RECOMMENDATION TO INCLUDE THE SUBSTANCE IN ANNEX XIV, INCLUDING THE PRIORITISATION OF THE SUBSTANCE:

#	Date (Attachment provided)	Submitted by (name, Organisation/ MSCA)	Comment
1862	2011/09/15 12:24	REISSER-Schraubentechnik GmbH, Member of Würth Group BehalfOfAnOrganisation Company Germany	Wir erheben Einspruch gegen die Aufnahme in Anhang XIV und die Prorisierung der Substanz Englisch: We object recommendation to include the substance in Annex XIV and the prioritisation of the substance

1849	2011/09/15 00:09	European Diagnostics Manufacturers Association (EDMA) BehalfOfAnOrganisation Industry or trade association Belgium	Cobalt dichloride does not fulfill ECHA's three criteria to prioritize substances (i.e. wide-dispersive use, PBT or vPvB and high production volume). As mentioned in ECHA's background document the volume of cobalt dichloride regulated by the authorization in the EU is quite low and the uses of the substance are not considered wide and dispersive. Cobalt dichloride plays an essential role in biotechnology and in vitro diagnostics. It is used as a trace element in fermentation and a cofactor for the enzyme terminal transferase. Both these uses are not considered to be wide and dispersive and no consumer use has been identified. Furthermore, cobalt dichloride has no PBT or vPvB properties and is rarely found in the final product. Additionally Sodium dichromate is used as a "sensitizer" in the production of multi-use screen cylinders that are used to manufacture disposable glucose test strips. The "sensitizer" is a photosensitive chemical used for treating photographic screen printing stencil films or emulsions and is essential to the production of the screen cylinders. Once the cylinders are made, they can be used repeatedly to manufacture the disposable test strips that work with the diabetes monitor to "read" the user's blood glucose levels. The test strips are the 'consumable' from home diabetes testing monitors that enable diabetic patients to accurately monitor their blood glucose levels, managing the illness hour-to-hour or day-to-day. Modern screen printing technology allows the test strips to be manufactured in a highly-controlled, high-speed, efficient process such that hundreds of millions of strips per year can be provided to diabetics in EU, US and other regions, for home use. Without the ability to make accurate, long-lasting screens to support this complex manufacturing process, companies would be unable to support the diabetes monitoring instruments that are in the marketplace today. Even though cobalt dichloride itself has been given a "moderate" priority, it has been grouped with other Co salts for prioritisation due to "regulatory efficiency". We are in agreement with this approach. The regulatory efficiency approach should however include exemptions from authorisations for the specific uses of Cobalt (II) salts in the manufacturing of pharmaceutical products and in vitro diagnostic.

1823	2011/09/14 21:29 File attached Confidential	Cobalt REACH Consortium Ltd (CoRC)/Cobalt Development Institute (CDI) BehalfOfAnOrganisation Industry or trade association United Kingdom	The Secretariat of the Cobalt REACH Consortium Ltd (CoRC) has prepared a Technical Annex for this cobalt substance to support the Joint Response Comments that have been submitted (separately) into the current consultation. The preparation of the Joint Response Comments has involved participation of the Consortium member companies who are the major manufacturers/importers of cobalt substances in Europe, as well as several Downstream Users that are also members of the Consortium. Further information has also been collected from industry stakeholders using two surveys: a stakeholder mapping survey, and a supply/value chain study. These studies were undertaken in order to collate and refine information available from the cobalt industry on volumes, exposure and uses. The surveys were cascaded along the supply chains to gather a more complete picture of the uses and supply/value chains than has been available previously. Information collected from the responses to these two surveys has been combined and summarised and is presented in the supporting Technical Annex to the Joint Response Comments. A copy of the Technical Annex document has been submitted into the current consultation as a CONFIDENTIAL attachment. The Consortium has also prepared a collation of the short-form versions of the Exposure Scenarios for this cobalt substance as an appendix to the Technical Annex. A copy of this accompanying document is also provided as a CONFIDENTIAL attachment. There are two other appendices to the Technical Annex which include papers that present further information regarding the threshold mechanism for cobalt compounds, and the essentiality of cobalt compounds. These two papers have been submitted into the current consultation (separately) as attachments to the response comments provided by the CDI (Cobalt Development Institute).
1804	2011/09/14 20:46 File attached	ACEA - European Automobile Manufacturers Association BehalfOfAnOrganisation Industry or trade association Belgium	According to the available data we see no basis for an inclusion of the hard chromium plating from Chromium trioxide (-solutions) in Annex XIV of the REACH regulation. See also attached Joint association letter sent to ECHA Executive Director on 20th October 2010.

1789	2011/09/14 19:53 File attached Confidential	BehalfOfAnOrganisation Company Germany	Kobalt(II)-salze finden bei mbw in den Cr(III)-haltigen Passivierungslösungen für Zn- und Zn-Legierungsschichten Anwendung. Vorrangig wird dabei Kobalt(II)-nitrat verwendet. Andere Kobaltsalze sind für die o. g. Passivierungen jedoch grundsätzlich möglich. Arbeitsschutz: Bei sachgemäßer Anwendung der kobalthaltigen Lösungen und Verwendung der vorhandenen persönlichen Schutzausrüstung besteht keine Gefährdung für die Mitarbeiter. Die persönliche Schutzausrüstung besteht dabei aus geeigneter Arbeitskleidung sowie chemiebeständigen Handschuhen. Aufgrund der vorhandenen Absaugeinrichtungen kann eine Gefährdung durch Stäube und/oder Nebel ausgeschlossen werden. Alternativverfahren: Aufgrund der hohen Korrosionsschutzanforderungen an Zink- und Zinklegierungsschichten gibt es zu kobalthaltigen Passivierungslösungen keine adäquaten Alternativen. Passivierungsschichten ohne Kobalt erfüllen die Anforderungen der Kunden, welche vorrangig aus der Automobilindustrie stammen, nicht. Vergleichbare Korrosionsergebnisse können nur mit Chrom(VI)-haltigen Lösungen erreicht werden. „Mit der EU-Richtlinie 2000/53/EG des Europäischen Parlaments über Altfahrzeuge sowie nachfolgend der EU-Richtlinie 2002/95/EG (Elektroschrottverordnung) wurde der Einsatz von Chromatierschichten für Pkw und Elektrobauteile verboten.“ (Quelle: Kommentar des Zentralverbandes Oberflächentechnik e.V. (ZVO) zum Thema Vorschlag zur Priorisierung von Cobalt(II)-sulphate, Cobalt(II)-dinitrate, Cobalt(II)-dichloride, Cobalt(II)-acetate und Cobalt(II)-carbonate zur Aufnahme in den Anhang XIV der REACh Verordnung im Zuge der public consultation bis zum 14.09.2011 - Einsatz der zweiwertigen Kobaltsalze in KONVERSIONSSCHICHTEN In der europäischen GALVANOTECHNIK. – als Anlage hochgeladen) Weitere Betrachtungen In dem als Anlage hochgeladenen bereits oben zitierten Kommentar des ZVO sind die Auswirkungen für die Wirtschaft zu entnehmen. Dem ist grundsätzlich nichts hinzuzufügen. Die

			Erzeugung von in kobalthaltigen Lösungen passivierten Zink- und Zinklegierungsschichten erfolgt branchenübergreifend für viele Kunden. Einen hohen Anteil stellen dabei international agierende Partner der Automobil- und Fensterbeschlagindustrie dar. Bei einen Verbot der Kobaltsalze entsteht der mbw-Gruppe ein deutlicher internationaler Wettbewerbsnachteil. Auch die Auswirkungen auf die bestehenden nationalen Geschäftsbeziehungen dürften erheblich sein. Die Fortführung der Geschäftsbeziehung ist damit erheblich gefährdet. Verbunden damit ist die Gefährdung der ca. 300 Arbeitsplätze der mbw-Gruppe. Einen hohen Anteil des Umsatzes wird mit Kunden aus der Automobil- und Fensterbeschlagindustrie erzielt. Bei einen Verbot der Kobalt(II)-salze wäre die mbw-Gruppe mit ca. 300 Mitarbeitern deutschlandweit so stark betroffen, dass eine Fortführung der Geschäftsbeziehungen und somit der Erhalt der Arbeitsplätze ernsthaft gefährdet ist. „Ein Verbot des Einsatzes von Kobaltsalzen in Passivierungen würde den Korrosionsschutz der beschichteten Teile deutlich vermindern und damit negative Auswirkungen auf die Langlebigkeit und Nachhaltigkeit des industriellen Wirtschaftens in Europa haben. Verstärkter Rohstoffeinsatz und zusätzlicher Energieverbrauch wäre die Folge und würde die europäischen Klimaschutzziele und Senkungsbestrebungen zum CO2 Ausstoß belasten.“ (Quelle: Kommentar des Zentralverbandes Oberflächentechnik e.V. (ZVO) zum Thema Vorschlag zur Priorisierung von Cobalt(II)-sulphate, Cobalt(II)-dinitrate, Cobalt(II)-dichloride, Cobalt(II)-acetate und Cobalt(II)-carbonate zur Aufnahme in den Anhang XIV der REACh Verordnung im Zuge der public consultation bis zum 14.09.2011 - Einsatz der zweiwertigen Kobaltsalze in KONVERSIONSSCHICHTEN In der europäischen GALVANOTECHNIK. – als Anlage hochgeladen)
1785	2011/09/14 19:48	European federation of Pharmaceutical Industries & Associations BehalfOfAnOrganisation International organisation Belgium	EFPIA has noted with interest the call by ECHA of June 2011 for comments on proposals to include a number of new substances, including Cobalt Dichloride, in Annex XIV of the REACH Regulation as substances of very high concern (SVHCs) which would require authorisation for their use. A number of these substances including cobalt dichloride have critical uses in the research, manufacture and control of medicinal products for which there are, at this time, no practical alternatives. The details relating to cobalt chloride are set out below and EFPIA asks that, if it is to be included in Annex XIV, it be exempted from the necessity for authorisation for its use in research, development, manufacture or anlytical control of medicinal products and their ingredients and for any corresponding uses in relation to medical devices.

1784	2011/09/14 19:46	BehalfOfAnOrganisation Company Canada	In reference to: Draft background document for cobalt dichloride Integran Technologies is a supplier of advance metallurgical materials based in Toronto, Ontario, Canada. One such commercially available material is Nanovate CoP, a fine grained cobalt-phosphorus alloy produced by a patented electrodeposition process. This product offers an environmental alternative to electrolytic hard chrome, which produces toxic hexavalent chromium - a known carcinogen. The CoP plating technology is being actively pursued in Demonstration/Validation programs for use on landing gears and a variety of other flight critical components within the aerospace defense and in hydraulic systems in other commercial sectors. The CoP plating system is very efficient which minimizes workers' exposure of cobalt species. The Nanovate process employs cobalt chloride in an acidic electrolyte. Existing and intended users within the EU receive a pre-mixed solution, which does necessitate any addition of solid materials over its lifespan. Spent solutions are returned for recovery and regeneration to facilities outside the EU. This precludes any handling of cobalt dichloride within the EU and fits within the definition of an on-site isolated intermediate. Furthermore, as noted in the draft background document, the main route for exposure is dust/fume inhalation. The use of cobalt salts in aqueous solutions limits exposure to workers. Data generated at a military facility in the US Department of Defense (FRCSE at Jacksonville, FL) demonstrated that the emission of cobalt in flue analysis from Nanovate process tanks is well below the PEL as specified by OSHA. The intended prioritization of this substance has hindered early adopters of Nanovate CoP in Europe from consider it as a viable alternative technology to hexavalent chromium despite the advantages of Nanovate CoP in terms of exposure riskto workers. Despite inherent differences between the toxicity of hexavalent chromium and cobalt dichloride (as evidenced by their differing Inherent Properties categories as per draft background documentation for hexavalent chromium and cobalt dichloride), they have been grouped together, which has led to a great misunderstanding to intended users within the EU and impedes the acceptance of an

			alternative to hexavalent chromium.
1769	2011/09/14 19:09 File attached Confidential	BehalfOfAnOrganisation Company Germany	Actually there is no good Alternative Cobalt in Passivation. But there are many Testings and Projects.
1733	2011/09/14 18:22	Metallveredelung Joos GmbH & Co.KG Augsburg BehalfOfAnOrganisation Company Germany	http://www.zvo.org/uploads/media/Kommentierung_ZVO_Cobaltsalzhttp://www.zvo.org/uploads/media/Kommentierung_ZVO_Cobaltsalze_galvanisch_V20110911_ENGLISCH.pdfe_galvanisch_V20110911.pdf

1726	2011/09/14 18:10	BehalfOfAnOrganisation Please select organisation type.. Germany	Cobalt compounds General situation Among other products, our group manufactures highly specialised opto-mechanical products that have a finished metallic surface for specialised and high precision applications. This finishing proc-ess also involves an electrolytic treatment of brass in which cobalt compounds are used. However, these are isolated in elemental, metallic and hence safe form on the metal surface. As a result, the product entering the supply chain in this state contains no cobalt compounds! Areas of application: - Surface corrosion protection - Light and temperature resistant - Precision components (0.005mm thickness) Plating process: - Employees are protected throughout the entire plating process by wearing personal protec-tive equipment including safety footwear, protective eyewear, gloves and special clothing. - In addition, employees receive annual training in the safe handling of hazardous materials. Description of the facilities: - There is an industrial ventilation system over the facility Disposal: - Conditioning by neutralisation and thermal concentration of the rinse water and subsequent off-site disposal by a company certified according to KrW/AbfG Alternatives: - There is no alternative to metal surfaces finished with cobalt compounds that has compara-ble technical and qualitative properties and that meets the requirements of the above-named areas of application (e.g. bonding, corrosion resistance, resistance to physical influ-ences, etc.). With alternatives such as nickel plating for example, there is only incomplete

			plating (microcracks). Conclusion: A ban on the use of cobalt compounds would mean our company would be compelled to close this area of surface plating. Among others, the main consequences would be as follows: - Loss of workspace - Substantial economic loss - Loss of long-standing customer loyalty
1710	2011/09/14 17:46	BehalfOfAnOrganisation Industry or trade association United Kingdom	CDI Comments for ECHA Public Consultation for Cobalt Salts – September 2011 The Cobalt Development Institute (CDI) is an international organisation of a wholly non-profit making character which has been in existence for over 50-years. The CDI is an association of producers, users and traders of cobalt. The CDI has the following objectives: (1) Promoting the responsible and sustainable use of cobalt in all forms. (2) Consulting organisations, agencies and governments for research or investigations in all matters concerning cobalt. (3) Providing members with topical information on all cobalt matters including health & safety and environmental legislation plus regulatory affairs possibly affecting their interests. (4) Promoting co-operation between members and providing a forum for the exchange of information concerning the resources, production and uses of cobalt. Membership of the CDI includes 32 member companies from 16 countries including all the major cobalt producers. The Board of the CDI has also established three Cobalt REACH Consortia to implement REACH on behalf of the cobalt industry. A separate wholly-owned subsidiary of the CDI called CoRC (Cobalt REACH Consortium Ltd.) acts as the Secretariat to the Consortia. This submission is being made in conjunction with formal submissions made by CoRC on behalf of the Members of the Cobalt REACH Consortium, and we also provide a confidential Technical Annex relating to this cobalt salt. REACH has many ambitions and compelling aims to protect EU citizens and workers from exposure to chemicals, and these are supported by Industry. Over the past five years since adoption of the REACH regulation, the cobalt industry has taken its responsibility to comply

			with the financial, technical, scientific and administrative burden. By 1st December, 2010 the registration of cobalt and the relevant cobalt compounds (18 in total) had been completed and we are currently continuing with our efforts to ensure that we contribute to the evaluation process. The Cobalt Consortium has already expended some Euro 7million and work continues for the remaining twelve substances covered by the Consortium. The Dossier (Technical Annex) prepared for cobalt dichloride shows that: - the actual tonnage of cobalt dichloride used in the EU market is much lower than quoted in the ECHA consultation document from REACH registration data. - it is largely used as an intermediate (~97-99 % of uses) in the manufacture of other chemicals which is not subject to Authorisation . Of the remaining limited number of non-intermediate uses, some will be exempt, such as uses in medicinal products (synthesis of Vitamin B12) and trace element in industrial cell culture, as well as uses as animal feed and as fertilisers, as they are covered by other Existing EU Legislation. Some non-intermediate uses such as surface treatment and corrosion prevention in industrial water systems are of very low tonnages (< 2%). Therefore the vast majority of the uses identified are not considered to be within the scope of Authorisation. - all uses identified are for industrial uses only, therefore the exposure is limited to workers and there is no expected exposure of professional users from the identified uses. - the occupational environment operates under tightly controlled conditions which are already regulated under existing Community legislation such as the exposure to carcinogens and mutagens at work directive (2004/37/EC), or the risk related to chemical agents at work directive (98/24/EC), DSD (67/548/EEC), DPD (99/45/EC). A strict control of environmental risk is ensured by the requirements of Directive 96/61/EC concerning integrated pollution prevention and control (IPPC) and Directive 2008/I/EC on the control of major accident hazards involving dangerous substances (Seveso II). - cobalt dichloride does not reach the consumer as is it not marketed as an end product nor it is intended for wide-dispersive use. - cobalt is a natural element that is essential in humans and some animal species, who are unable to synthesise sufficient quantities of Vitamin B12. While low levels of Vitamin B12 intake can be associated with diseases of deficiency, the ingestion of large amounts of Vitamin B12 has not been reported to be toxic to humans. Its ubiquitous and constant presence in the body tissues is indicative of the fact that low dietary levels of cobalt have no health impact. - although cobalt dichloride is identified as a CMR 1B by inhalation substance, guideline

			compliant studies indicate it may not be genotoxic in vivo. The CoRC has recently provided ECHA with information on a potential concentration threshold mode of action for carcinogenicity. A report on the threshold mechanism has been uploaded with this response . - no reports of carcinogenicity and genotoxicity associated with cobalt ingestion have been reported in humans or in animals. A report on Essentiality has been uploaded with this response . The exposure assessments developed by the CoRC for the REACH registration demonstrate that all registered uses of cobalt dichloride can demonstrate effective control of exposure and can be considered as safe uses (i.e. RCR value
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1696	2011/09/14 17:30 File attached Confidential	BehalfOfAnOrganisation Company Belgium	ECHA (2011) Draft background document for cobalt dichloride. ECHA 15.06.2011 At GE Water & Process Technologies, our mission is to provide products and services that protect and enhance the reliability, energy efficiency, productivity, safety and environmental compliance of our customer's water, utility and process assets and equipment. This equipment includes, but is not limited to, boilers and associated steam and hot water generating equipment, open and closed recirculating cooling systems and associated condensers and heat exchange equipment, water purification and remediation systems including membrane and ion exchange-based filtration systems, all forms of wastewater treatment and remediation systems, and process treatments for the hydrocarbon and chemical processing industries, as well as the mining, mineral and metal processing industries. Dissolved oxygen corrosion is a well-established and serious threat to the reliability and safe, efficient operation of steam boilers. At the elevated temperatures which are characteristic of boiler feed water, internal boiler water and steam condensate, even trace (or low parts-per-billion, ug/l) amounts of dissolved oxygen in boiler water streams are extremely corrosive to the iron, steel and copper alloys of which the boiler systems and associated equipment and piping are almost universally constructed. On 1st December 2010 the EU classified Cobalt Dichloride as a carcinogen 1B, H350i, and toxic for reproduction category 1B H360F. These human health risks are attributable to inhalation exposures. While recognizing the importance of curtailing the use of Cobalt Dichloride in applications in which inhalation is a potential exposure path, there are a number of important uses of Cobalt Dichloride with minimal to no inhalation exposure, and for which the safety and reliability of industrial and commercial steam and hot water boiler systems will be seriously impacted by inclusion in Annex XIV. See attached exposure scenario.

			The GE Water & Process Technologies metallurgical laboratories have documented and reported on thousands of individual cases of the failure of boiler system components due to dissolved oxygen corrosion since our operations commenced in the early decades of the 20th century. Many of these failures resulted in unscheduled outages and interruptions of operations, and required costly and expensive emergency repairs. Safe and reliable steam generation in utility, industrial and commercial operations provides the majority of modern electric power generating capacity, as well as powering the critical processes in our petrochemical refining, heavy manufacturing and industrial operations Mechanical devices, typically referred to as deaerators in the boiler industry, are widely, but not exclusively, employed to reduce dissolved oxygen levels while preheating boiler feed water. While these devices are efficient, they cannot and do not remove all traces of dissolved oxygen from the boiler feed water. In addition, when these devices are in extended periods of operation they are often not operating efficiently, which can seriously impair their ability to remove dissolved oxygen from the boiler feed water. In many systems, there is in fact no deaerator present. For these reasons, it is accepted and almost universal practice to add a dissolved oxygen scavenger to the boiler feed water to remove that last traces of dissolved oxygen. The most commonly used oxygen scavenger preparations are based on sodium sulphite, which is capable (as described in the attached document) of reacting with and removing dissolved oxygen from boiler feed water. Steam generation is a very water-intensive process and requires rapid replenishment of boiler water as steam leaves the boiler to perform the intended work. This boiler feed water is pumped rapidly into the boiler through a section of iron or steel-based piping and often through a set of preheating heat exchangers which may be constructed of steel or copper alloys. Normally, it only requires seconds for the feed water to pass from the storage tank or feed water reservoir into the boiler. Thus, to be effective, it is essential that a chemical oxygen scavenger react with and remove any dissolved oxygen very rapidly, before it has time to react with and corrode the metal surfaces of the feed water system and boiler internals. It was discovered that low parts-per-billion levels of ionic cobalt (Co2+) were tremendously effective as a catalyst in accelerating the rate of reaction of sodium sulphite with dissolved oxygen. Other potential catalysts, both organic and inorganic, have been evaluated, but none approach the efficacy and performance of cobalt Justification: • Cobalt dichloride is extremely effective as a trace level catalyst to accelerate the reaction of sodium sulphite preparations in removing dissolved oxygen from boiler feed water,

			preventing boiler system failures and outages caused by dissolved oxygen corrosion. • GE W&PT has evaluated alternative catalysts, both inorganic and organic, and none were found to be as effective as cobalt. Those that were marginally effective, including the transition metals manganese, copper and nickel, are not viable in that they are either corrosive to boiler metallurgy, or form potentially damaging deposits on boiler system surfaces. The organic catalysts evaluated were ineffective. • All the GE W&PT sodium sulphite mixtures offered for sale in EU countries regulated under the REACH legislation contain less than 0.01% as CoCl2. • GE W&PT's annual use rate of cobalt chloride is less than 200 kg (as CoCl2) per year. As referenced below, the European Boiler Water Treatment Standards EN12952-12 and EN12953-10 covering water-tube and shell boiler designs, specify improvement of boiler feedwater quality through effective chemical oxygen scavenging, with specific mention of sodium sulphite as a conventional inorganic conditioning agent. • EN12952-12: • EN12953-10: • EN 12952-12: Water-tube boilers and auxiliary installation - Part 12: Requirements for boiler feedwater and boiler water quality 4 Conditioning Certain quality characteristics of feedwater and boiler water shall be improved by treatment with chemicals. This conditioning can contribute: _ to support the formation of magnetite layers or other protective oxide layers; _ to minimize corrosion by optimizing the pH value; _ to stabilize hardness and to prevent or minimize scaling; _ to effect chemical oxygen scavenging; _ to develop special coatings with protective effect by film formation on metallic surfaces. Conventional inorganic conditioning agents include e.g. sodium and potassium hydroxide, sodium phosphate, sodium sulphite, ammonia and hydrazine. Coordinated phosphate treatment can also be beneficial in controlling pH in the boiler water. And; • EN 12953-10: Shell boilers – Part 10: Requirements for boiler feedwater and boiler water quality 4 Conditioning Certain quality characteristics of feedwater and boiler water shall be improved by treatment with chemicals.

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1649	2011/09/14 16:16	Portuguese Environment Agency BehalfOfAnOrganisation National authority Portugal	Taking into consideration the wide dispersion use of the substance "Cobalt dichloride", we consider that this substance fullfills the prioritisation criteria. We therefore support ECHA's recommendation for inclusion of this substance in annex XIV. We also support the proposed application and sunset date.
1607	2011/09/14 15:11 File attached	Dr. Hesse & Cie. KG BehalfOfAnOrganisation Company Germany	Wir halten die vorgeschlagene Priorisierung nicht für gerechtfertigt und fordern die Ablehnung einer Aufnahme von cobalt dichloride in den Anhang XIV. Die Aufnahme von Stoffen in Anhang XIV erfolgt nach Artikel 58 REACH-Verordnung. Absatz 3 des genannten Artikels definiert drei Kriterien für die prioritär aufzunehmenden Stoffe: (a) PBT or vPvB properties; or (b) wide dispersive use; or (c) high volumes. Zu (a): PBT or vPvB properties cobalt dichloride hat weder PBT- noch vPvB-Eigenschaften. Zu (b): wide dispersive use Weiter treffen die von der ECHA aufgeführten Definitionen für einen „wide dispersive use" in keinster Weise auf die industrielle Anwendung von cobalt dichloride in Behandlungslösungen zur Erzeugung von Konversionsschichten zu. Es handelt sich um streng kontrollierte Anwendungen mit definierten Anforderungen an die Anlagentechnik, an die Ausbildung des Bedienungspersonals, an Sicherheitsvorkehrungen und persönliche Schutzausrüstung sowie an die Abluftbehandlung und Abwasserreinigung.

			Zudem entspricht die Anwendung im Bereich der Galvano- und Oberflächentechnik keiner der genannten Beispiele für „Wide-dispersive use refers to activities which deliver uncontrolled exposure: Painting with paints, spraying of pesticides, use of detergents, cosmetics, disinfectants, household paints". Klarzustellen ist hier weiterhin, dass in unserem Anwendungsbereich keine Weitergabe von cobalt(II) dinitrate an den Endverbraucher stattfindet. Co wird nicht in Form des Nitrates in die Konversionsschicht eingebaut, sondern als Mischoxid. Wir verweisen in diesem Zusammenhang auch auf den Verzicht der FDA zur Festlegung eines Grenzwertes für Cobalt für „dinnerware" wie im Annex XV report zu Cobalt(II) dinitrate unter 1.2.2 aufgeführt. Eine Einstufung mit Release: 3 (diffuse / uncontrolled / significant) wie im „Draft background document for cobalt dichloride" ist für die Anwendung in der Oberflächentechnik also nicht zutreffend. Daher wäre eine Einstufung mit score=1 korrekt. Zu c) high volumes Die verwendete Menge cobalt dichloride in der Galvano- und Oberflächentechnik liegt in Europa signifikant unter 1000 t und entspricht damit nicht den Bedingungen für „high volumes" Bezüglich der von der ECHA ergänzten Bewertung nach „regulatory effectiveness" ist zu sagen, dass aufgrund der technischen Alternativlosigkeit (siehe Anhang) für die beschriebene Verwendung von cobalt dichloride keine Verbesserung für den Schutz der Umwelt und der menschlichen Gesundheit erreichbar. Eine Zulassungspflicht durch Aufnahme in den Anhang XIV würde nur zu deutlich höheren Kosten und einer verminderten Wettbewerbsfähigkeit der Europäischen Unternehmen im globalen Wettbewerb führen. Insgesamt stellen wir fest, dass für die Verwendung von cobalt dichloride in der Oberflächentechnik weder das Kriterium „PBT or vPvB properties" noch das Kriterium „wide dispersive use" erfüllt ist und darüber hinaus eine „regulatory effectiveness" ebenfalls nicht gegeben ist. Auch sind die verwendeten Mengen in der Oberflächentechnik nicht in einer Größenordnung, die eine Priorisierung zur Authorisierung rechtfertigen. Die vorgeschlagene Priorisierung ist daher nicht gerechtfertigt und wir fordern die Ablehnung einer Aufnahme von cobalt dichloride in den Anhang XIV. Im – aus unserer Sicht nicht gerechtfertigten – Falle der Aufnahme von cobalt dichloride in den Anhang XIV der REACh-Verordnung fordern wir zumindest eine Ausnahmeregelung für die Verwendung von Co(II)-Salzen zum Zwecke der Erzeugung von Konversionsschichten auf Zink- und Zinklegierungsschichten bei galvanischen Korrosionsschutzsystemen und verweisen dabei auf das ZVO-Papier (siehe Anhang): Kommentar des Zentralverbandes Oberflächentechnik e.V. (ZVO) zum Thema Vorschlag zur

			Priorisierung von Cobalt(II)-sulphate, Cobalt(II)-dinitrate, Cobalt(II)-dichloride, Cobalt(II)-acetate und Cobalt(II)-carbonate zur Aufnahme in den Anhang XIV der REACh Verordnung im Zuge der public consultation bis zum 14.09.2011: Einsatz der zweiwertigen Kobaltsalze in Konversionsschichten in der europäischen Galvanotechnik zu diesem Thema, an dessen Erarbeitung wir beteiligt waren und das Arbeitsschutzaspekte, wirtschaftliche Bedeutung und die Bewertung von Alternativtechnologien ausführlich beleuchtet.
1542	2011/09/14 14:20 File attached	COVENTYA GmbH BehalfOfAnOrganisation Company Germany	Die Verwendung von Cobalt(II)-sulphate, Cobalt(II)-dinitrate, Cobalt(II)-dichloride, Cobalt(II)-acetate und Cobalt(II)-carbonate ist für die Herstellung unserer für die Oberflächenbehandlung relevanten Produkte unabdingbar. Die Ausführungen der Kommentierung des ZVO (siehe Anhang) stimmen voll und ganz mit den Argumenten und Forderungen der Coventya GmbH überein. Auf eine Auflistung wird hier verzichtet und wir verweisen auf die Kommentare des Zentralverbandes Oberflächentechnik e. V. (ZVO) „Einsatz der zweiwertigen Kobaltsalze in Konversionsschichten in der europäischen Galvanotechnik“ und „Einsatz von Cobalt(II)-sulphate, Cobalt(II)-dinitrate, Cobalt(II)-dichloride, Cobalt(II)-acetate und Cobalt(II)-carbonate in Elektrolyten zur elektrochemischen Reduktion in der europäischen Galvanotechnik“. Die Coventya GmbH kann auf Grund der in den Kommentaren aufgeführten Argumenten (siehe Anhang) die Aufnahme der Kobalt-Salze in den Anhang XIV der REACh-Verordnung nicht unterstützen. Im Falle einer Aufnahme der Stoffe Kobalt(II)-dinitrat, Kobalt-dichlorid, Kobalt(II)-sulfat, Kobalt(II)-diacetat, Kobalt(II)-carbonat in den Anhang XIV der REACh-Verordnung fordert die Coventya GmbH eine Ausnahmeregelung für die Verwendung von Kobaltsalzen in Lösungen zur Erzeugung von Konversionsschichten auf Zink- und Zinklegierungsschichten bei galvanischen Korrosionsschutzsystemen, eine Ausnahme von der Zulassungspflicht für die Verwendung von Kobaltsalzen (Cobalt(II)-sulphate, Cobalt(II)-dinitrate, Cobalt(II)-dichloride, Cobalt(II)-acetate und Cobalt(II)-carbonate) zum Zwecke der Erzeugung von kobalthaltigen metallischen Schichten bei der galvanischen Beschichtung und eine Ausnahmeregelung über die Verwendung für die Herstellung von Additiven/Präparaten für die Galvanotechnik.

			The use of Cobalt(II)-Sulphate, Cobalt(II)-Dinitrate, Cobalt(II)-Dichloride and Cobalt(II)-Acetate is essential for the manufacture of our products are relevant for the surface treatment. The remarks commenting on the ZVO (see Appendix) votes fully agree with the arguments and requirements of Coventya GmbH. On a collection is omitted here and we refer to the comments of the Central Association of Surface Treatment Professionals Germany (ZVO) "Application of divalent cobalt salts in Conversion layers in the European electroplating Industry" and "Application of divalent cobalt salts in cobalt and cobalt-alloy-layers in the European electroplating Industry". As described in the statements (see Appendix) Coventya GmbH cannot follow the arguments to include the Cobalt Salts (cobalt(II)-sulphate, cobalt(II)-nitrate, cobalt(II)-chloride and cobalt(II)-acetate) into the Appendix XIV of the REACH regulations. In the event that these substances are included in Appendix XIV of the REACH regulations Coventya GmbH demand that there has to be an exception to the rules to allow the use of Cobalt(II)-Salts for the purpose of anti-corrosion, decorative and bright Cobalt-Alloy-Plating, the use of Cobalt(II)-Salts for the purpose of functional, decorative and bright Cobalt- and Cobalt-Alloy-Plating and an exception on the use for the manufacture of additives / supplements for electroplating.
1544	2011/09/14 14:20 File attached	COVENTYA GmbH BehalfOfAnOrganisation Company Germany	Die Verwendung von Cobalt(II)-sulphate, Cobalt(II)-dinitrate, Cobalt(II)-dichloride, Cobalt(II)-acetate und Cobalt(II)-carbonate ist für die Herstellung unserer für die Oberflächenbehandlung relevanten Produkte unabdingbar. Die Ausführungen der Kommentierung des ZVO (siehe Anhang) stimmen voll und ganz mit den Argumenten und Forderungen der Coventya GmbH überein. Auf eine Auflistung wird hier verzichtet und wir verweisen auf die Kommentare des Zentralverbandes Oberflächentechnik e. V. (ZVO) „Einsatz der zweiwertigen Kobaltsalze in Konversionsschichten in der europäischen Galvanotechnik" und „Einsatz von Cobalt(II)-sulphate, Cobalt(II)-dinitrate, Cobalt(II)-dichloride, Cobalt(II)-acetate und Cobalt(II)-carbonate in Elektrolyten zur elektrochemischen Reduktion in der europäischen Galvanotechnik". Die Coventya GmbH kann auf Grund der in den Kommentaren aufgeführten Argumenten (siehe Anhang) die Aufnahme der Kobalt-Salze in den Anhang XIV der REACh-Verordnung nicht unterstützen. Im Falle einer Aufnahme der Stoffe Kobalt(II)-dinitrat, Kobalt-dichlorid, Kobalt(II)-sulfat, Kobalt(II)-diacetat, Kobalt(II)-carbonat in den Anhang XIV der REACh-Verordnung fordert die Coventya GmbH eine Ausnahmeregelung für die Verwendung von Kobaltsalzen in Lösungen zur Erzeugung von Konversionsschichten auf Zink- und Zinklegierungsschichten bei

			galvanischen Korrosionsschutzsystemen, eine Ausnahme von der Zulassungspflicht für die Verwendung von Kobaltsalzen (Cobalt(II)-sulphate, Cobalt(II)-dinitrate, Cobalt(II)-dichloride, Cobalt(II)-acetate und Cobalt(II)-carbonate) zum Zwecke der Erzeugung von kobalthaltigen metallischen Schichten bei der galvanischen Beschichtung und eine Ausnahmeregelung über die Verwendung für die Herstellung von Additiven/Präparaten für die Galvanotechnik. The use of Cobalt(II)-Sulphate, Cobalt(II)-Dinitrate, Cobalt(II)-Dichloride and Cobalt(II)-Acetate is essential for the manufacture of our products are relevant for the surface treatment. The remarks commenting on the ZVO (see Appendix) votes fully agree with the arguments and requirements of Coventya GmbH. On a collection is omitted here and we refer to the comments of the Central Association of Surface Treatment Professionals Germany (ZVO) "Application of divalent cobalt salts in Conversion layers in the European electroplating Industry" and "Application of divalent cobalt salts in cobalt and cobalt-alloy-layers in the European electroplating Industry". As described in the statements (see Appendix) Coventya GmbH cannot follow the arguments to include the Cobalt Salts (cobalt(II)-sulphate, cobalt(II)-nitrate, cobalt(II)-chloride and cobalt(II)-acetate) into the Appendix XIV of the REACH regulations. In the event that these substances are included in Appendix XIV of the REACH regulations Coventya GmbH demand that there has to be an exception to the rules to allow the use of Cobalt(II)-Salts for the purpose of anti-corrosion, decorative and bright Cobalt-Alloy-Plating, the use of Cobalt(II)-Salts for the purpose of functional, decorative and bright Cobalt- and Cobalt-Alloy-Plating and an exception on the use for the manufacture of additives / supplements for electroplating.
1541	2011/09/14 14:13	BehalfOfAnOrganisation Company United Kingdom	Reason for use: cobalt dichloride is one of the substances added to the plating solution for plating zinc cobalt, which this company uses as a protective finish on equipment for the military and aerospace sectors. Importantly, zinc cobalt can be passivated to an Olive Drab colour, unlike a potential alterniative, zinc nickel. Volume of use: this End User company uses small amounts of Cobalt dichloride: approx 20kg/year. Releases: the finished zinc cobalt plating does not contain cobalt dichloride, so customers of the plated articles are not exposed to cobalt dichloride. Within the plating environment, exposure is well controlled by use of Local Exhaust Ventilation. Annual monitoring shows platers to be exposed to

1534	2011/09/14 13:56	BehalfOfAnOrganisation Company United Kingdom	The biotech industry uses fermentation in industrial scale to produce valuable products for example enzymes, proteins, peptides or other organic molecules. Fermented products are used in a wide range of applications; in various industrial uses i.e. detergent enzymes, food and feed enzymes, and in the production of pharmaceutical products and medical devices. Novozymes companies are among the world's leading manufacturers of fermented products contributing sustainable growth to the society. Novozymes Biopharma (http://www.biopharma.novozymes.com) manufactures animal free products with genetic engineering technology for the pharmaceutical industry. The products are for example used for cell culturing by the pharmaceutical industry or used as ingredients in medical devices. We have noted with interest the call by ECHA of June 2011 for comments on proposals to include a number of new substances, including cobalt dichloride, in Annex XIV of the REACH Regulation as substances of very high concern (SVHCs) which would require authorization for their use. Cobalt dichloride have critical uses in the biotech industry, based on the fermentation technology, for which there are, at this time, no practical alternatives. The details relating to cobalt chloride are set out below in "Comments on uses" and we ask that these uses are exempted from the necessity for authorization meeting the criteria for prioritization of substances for inclusion into Annex XIV the Art. 58 (3).
1533	2011/09/14 13:48	BehalfOfAnOrganisation Company Denmark	Biotech industry uses fermentation in industrial scale to produce valuable products for example enzymes, proteins, peptides or other organic molecules. Fermented products are used in a wide scale of applications; various industrial uses i.e. detergent enzymes, food and feed enzymes, and production of pharmaceutical products and medical device uses. Novozymes Companies are world's leading manufacturers of fermented products contributing sustainable growth of the society. Novozymes A/S (www.novozymes.com) manufactures enzymes for industrial uses. For example enzymes are important ingredients for detergent products especially for cold wash. Enzymes are also used for production of biofuels. Novozymes Biologicals offers various solutions with beneficial microorganisms for e.g. waste water treatment. We have noted with interest the call by ECHA of June 2011 for comments on proposals to include a number of new substances, including Cobalt Dichloride, in Annex XIV of the REACH Regulation as substances of very high concern (SVHCs) which would require authorisation for their use. Cobalt dichloride have critical uses in the biotech industry based on the fermentation

			technology for which there are, at this time, no practical alternatives. The details relating to cobalt chloride are set out below in "Comments on uses" and we ask that the uses are exempted from the necessity for authorization meeting the criteria for prioritization of substances for inclusion into Annex XIV the Art. 58 (3).
1516	2011/09/14 12:47	BehalfOfAnOrganisation Company Sweden	The biotech industry uses fermentation in industrial scale to produce valuable products for example enzymes, proteins, peptides or other organic molecules. Fermented products are used in a wide range of applications; in various industrial uses i.e. detergent enzymes, food and feed enzymes, and in the production of pharmaceutical products and medical devices. Novozymes companies are among the world's leading manufacturers of fermented products contributing sustainable growth to the society. Novozymes Biopharma (http://www.biopharma.novozymes.com) manufactures animal free products with genetic engineering technology for the pharmaceutical industry. The products are for example used for cell culturing by the pharmaceutical industry or used as ingredients in medical devices. We have noted with interest the call by ECHA of June 2011 for comments on proposals to include a number of new substances, including cobalt dichloride, in Annex XIV of the REACH Regulation as substances of very high concern (SVHCs) which would require authorization for their use. Cobalt dichloride have critical uses in the biotech industry, based on the fermentation technology, for which there are, at this time, no practical alternatives. The details relating to cobalt chloride are set out below in "Comments on uses" and we ask that these uses are exempted from the necessity for authorization meeting the criteria for prioritization of substances for inclusion into Annex XIV the Art. 58 (3).
1508	2011/09/14 12:39 File attached	Enthone GmbH BehalfOfAnOrganisation Company United Kingdom	

1506	2011/09/14 12:36	Health and Environment Alliance BehalfOfAnOrganisation International NGO Belgium	We support the recommendation to include cobalt dichloride on the Annex XIV.
1467	2011/09/14 11:28 File attached Confidential	BehalfOfAnOrganisation Company Sweden	ECHA (2011) Draft background document for cobalt dichloride. ECHA 15.06.2011 Proposal: To exempt from the authorization requirement the use of cobalt dichloride for production of culture media to allow its continued use in the manufacture and purification of organic biomolecules. Justification: This exemption is necessary to avoid serious disruption to the pharmaceutical industry and to ensure that innovation in the European Union in this field is permitted to continue. Summary of Comments The purpose in submitting these comments is to ensure that ECHA is familiar with certain critical uses of cobalt dichloride and cobalt dichloride hexahydrate. Although our uses of these materials are in limited quantities, the uses are critical in cell culture and microbial bioprocesses. These uses are NOT as medicinal products. However, inability to use cobalt dichloride in cell culture and microbial processes WILL impact the production of medicinal products and the pharmaceutical industry. There are no known substitutes for these uses. In the comments below we describe our uses in detail and the controls used to protect the health and safety of employees in accordance with EU directives. We encourage ECHA to exempt the use of cobalt dichloride for production of culture media to allow its continued use in the manufacture and purification of organic biomolecules. This exemption in necessary to avoid serious disruption to the pharmaceutical industry and to ensure that innovation in the European Union in this field is permitted to continue. Comments On 1 December 2010 Cobalt Dichloride was classified as a carcinogen 1B, H350i, and toxic for reproduction category 1B H360F. These human health risks are attributable to inhalation exposures. While recognizing the importance of curtailing use of Cobalt Dichloride in

			applications whereby inhalation is a potential exposure path, there are a number of important uses of Cobalt Dichloride with minimal to no inhalation exposure and for which scientific research and medicinal products will be seriously impacted by inclusion in Annex XIV. We use less than 1 kilogram of cobalt dichloride annually in culture media for eukaryotic cell and microbial bioprocesses. A culture medium is a nutrient liquid that may contain macronutrients, micronutrients, trace elements, amino acids, vitamins, buffer compounds and energy sources. Such media are required for growth of cells used in common bioprocess applications. The output of such applications are specific proteins or other bio-organic compounds. The cobalt ion is an essential trace element and a prerequisite for catalytic activity, in certain intracellular processes, ultimately resulting in production of the desired proteins and other bio organic compounds. Once these proteins and bio organic compounds have been produced and are linked to separation media, the combined end product becomes an important tool for the pharmaceutical industry. The pharmaceutical industry uses the combined end product, which is not a medicinal product, to make vaccines and other medicinal products. Please note that although cobalt dichloride is an essential element necessary to manufacture the end product, there is no cobalt dichloride present in the final end product. Following the cultivation step, the remaining dichloride, if any, is separated from the desired proteins and other bio organic compounds. It is also important to note that tools and processes used in the manufacture of pharmaceuticals are subject to strict validation requirements by the EU directive. Therefore prior to making a change in the production process, (e.g., use of a different tool to produce a vaccine, a pharmaceutical company must re-validate its production process. Such a revalidation, even if possible, would take a considerable amount of time and expense. ECHA should also note that the molecules which are generated by the cultured media are used in many research and development activities, as well as active ingredients in cell cultures for drug manufacturing, and important to innovation in the European Union. Research areas include cell, DNA and protein mutations, cell transformation and other advanced techniques. Since the research and development is on the molecules generated by the cultured media and not on the cobalt dichloride, the exclusion provided in Article 56(3) of the REACH Regulation, "the obligations of Art. 56(1) and 56(2) … shall not apply to the use of substances in scientific research and development" would appear to not extend to this use of cobalt dichloride. Given the critical need for cobalt dichloride in this process, and the critical need for the end product to produce vaccines and medicines, the prohibition or restriction on the use of cobalt dichloride for this use would most be disruptive to the pharmaceutical industry and innovation

			in the European Union. The listing of cobalt dichloride in Annex XIV would curtail all of these activities. If ECHA should conclude that cobalt dichloride is to be listed in Annex XIV, then we strongly recommend and encourage ECHA to exempt uses of cobalt dichloride for production of culture media to allow its continued use in the manufacture and purification of proteins and other organic biomolecules. Existing EU legislation (98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work and 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work), as well as Member State national laws and regulations provide ample protections for the environment, health and safety. Companies preparing or using cobalt dichloride for cell culture and microbial applications must comply with the industrial hygiene framework of occupational exposure limits values recognized as good occupational hygiene practice (ECHA, 2009). (Examples of occupational exposure limit values, UK 0.1 mg/m3, Sweden 0.05 mg/m3. In addition, our use is in very small amounts < 1 kg per year, and when preparing mixtures of cobalt dichloride for use in culture media, the majority of cobalt chloride use and handling is in the form of solutions, thereby minimizing risk from inhalation.
1453	2011/09/14 10:52 File attached	A.M.P.E.R.E. DEUTSCHLAND GmbH BehalfOfAnOrganisation Company Germany	The electroplating and surface treatment industry is, at the same time, both a key technology and a cross technology and, as a result, a driving force for technological advancement. In the field of electroplating, cobalt salts are used in particular in the manufacture of coatings made of metallic cobalt-alloys. Within the overall field of electroplating, zinc and zinc alloys and their subsequent conversion layers for the cathodic corrosion protection of steel components represent also a particular area of focus which is of growing importance. Cobalt- and cobalt-alloy-plating is a field of special interest whose importance continues to grow from both an economic and technical point of view. The added value gained from refining surfaces contributes to a strengthening of Europe as an economic region and secures the competitive edge of European products on the world's markets. To save resources and reduce CO 2 one has to have durable products with optimised technical properties. Zinc and zinc alloy coatings with the conversion layers deposited on them make a considerable contribution to achieving these aims as a result of their corrosion-protection properties. It can be generally said that zinc & zinc alloys provide optimum corrosion protection for a minimum use of materials and at low costs. The need to save

			resources necessitates the ability to produce durable commodities which have optimised technical properties. As a result of their mechanical properties, e.g. high hardness levels in gold application, cobalt including coatings makes a crucial contribution to these aims. The use of cobalt (II) salts with its importance for the surface treatments industry, machine and plant engineering, automotive, improving the adhesion of paint layers when they are applied and other industrial sectors, such as the construction industry in Europe, must have a future in order to maintain the specific properties achieved with the application of electrochemical corrosion protection systems using zinc and zinc alloys with subsequent conversion layers. Further industries which are concerned are bathroom and furniture fittings, consumer articles, the watch and clockmaking and jewellery industries, medical technology and many other industrial fields in Europe will be referred to and the specific reasons explained as to why electrochemical cobalt- and cobalt-alloy-plating must remain an option in the future. Because of the following reasons we cannot follow the arguments to include the Cobalt Salts (cobalt(II)-sulphate, cobalt(II)-nitrate, cobalt(II)-chloride and cobalt(II)-acetate) into the Appendix XIV of the REACH regulations.
1425	2011/09/14 09:51	Germany MemberState Germany	The German CA supports the ECHA proposal on prioritisation of cobalt dichloride due to its carcinogenic properties and toxicity for reproduction. Supplementary Notes: Verbal-argumentative approach, Scoring approach, page 8 Widespread uses are postulated although only medium number of sites is assumed. Site-# 2 corresponding to medium number of sites is not associated with widespread uses in case cobalt(II) carbonate. Adjusted wording is recommended for cases of medium number of industrial settings (Site-# 2). Conclusion, taking regulatory effectiveness considerations into account, page 8 We agree that all cobalt(II) compounds on the Candidate List should be treated equally with respect to prioritisation, because of the overall addition of divalent cobalt as the toxicologically relevant species from different cobalt(II) sources. Page 1, Section 1 Contrary to the other documents dealing with priorisation of Cobalt salts, this one does not explicitly include the hydrated forms of the salt. However, the original Annex XV dossier has

			these included. In the text of the background document no further reference is found to explain if this happened on purpose. This may cause ambiguity because both the dihydrate and the hexahydrate have CAS numbers of their own, so formally they may be considered as not being covered by the present priorisation. Is this deviation just an omission?
1225	2011/09/14 00:54 File attached	CETS aisbl BehalfOfAnOrganisation Industry or trade association Germany	The aim of this report is to focus upon the shortcomings of the Annex XV dossier for the substancees cobalt(II)-sulphate, cobalt(II)-nitrate, cobalt(II)-chloride, cobalt(II)-acetate and cobalt(II)-carbonate. In particular, its intermediate use in plating industry. At the outset, cobalt(II)-sulphate, cobalt(II)-nitrate, cobalt(II)-chloride, cobalt(II)-acetate and cobalt(II)-carbonate were part of the third priority list of existing substances under the legal framework of Regulation 793/93. The use of Cobalt(II) salts by the plating industry should be regarded as an intermediate in accordance with the definition of Article 3(15) of REACH. ECHA's interpretation of the concept of 'intermediate' (as given in its June 2010 clarification document) excludes substances used as surface treatments, e.g. Cobalt(II) salts used in metal finishing. However, the conclusion reached in the clarification document of June 2010 cannot be supported. The abovementioned clarification document was reviewed by two independent legal experts at the request of Industry. In Cefic's position paper of December 2010, the followed was reported: "Both legal advisory statements conclude that the interpretations for intermediates as elaborated in the [clarification] document go far beyond the Article 3 (15) of the REACH Regulation and therefore the concept of intermediates was narrowed tremendously by ECHA, Commission and the Member States." That position was subsequently endorsed by Cefic itself (see December 2010 document) and supported in a number of recent petitions made by Industry associations, such as AIAS and the Institute of Metal Finishing. In this connection, it is worthwhile noting at the outset that ECHA's guidance document for the preparation of an Annex XV dossier on the identification of substances of very high concern states in its point 3.3.4 that, "certain types of information, including exposure-related

			information, are needed for the later process used to prioritize the substances for inclusion on Annex XIV, once the dossier has been accepted." The guidance then continues to make reference to 'available' information on exposures. 1. Occupational safety a. No risk in application of Cobalt(II) salts for the end-consumer or industrial client since only pure Cobalt metal is deposited on the substrate and there is no Cobalt(II) salt on top of the plated parts. b. Safe handling of the solutions to minimize the risk for the co-workers for dermal or respiratory tract absorption (as evidenced by of regular medical visits and vaccination of the co-workers involved). 2. Alternative processes There are a variety of familiar alternatives for Cobalt plating. These alternatives do not include one universal substitute process, capable of replacing Cobalt plating on a one to one basis (For details see attachment). 3. Overall implications: a. The application of Cobalt plating shows a high socio-economic benefits due to the functional properties in a wide range of products (For details see attached document). 4. Summarized comments: Metallic layers with a cobalt or cobalt alloy surface are well established and widely used in the market place. The tendency in the electronic industry and other industrial sectors continues to emphasise the look and technical advantages cobalt or cobalt alloys while taking into account the existing quality standards. Long-term studies of the alternatives demonstrate the irreplaceability of cobalt or cobalt alloy surfaces made using electrolytes containing cobalt(II)-sulphate, cobalt(II)-nitrate, cobalt(II)-chloride, cobalt(II)-acetate and cobalt(II)-carbonate for most applications. The finish color, corrosion protection and solderability offered by layers made using cobalt or cobalt alloy electrolytes is noticeably poorer, which has a negative effect on the lifetime of the products to which the process is applied. This necessitates increased use of raw materials which is contrary to achieving sustainability targets set by European programmes. 5. Resulting requirements: 1. According to the available data there is no basis for an inclusion of the Cobalt(II) salts in Annex XIV of the REACh regulation. 2. In the case of an inclusion it is absolutely necessary to realize a derogation rule for the application of Cobalt plating.

1208	2011/09/13 21:24 File attached	BehalfOfAnOrganisation Company United Kingdom	Application of divalent cobalt salts in Conversion layers in the European electroplating Industry Within the overall field of electroplating, zinc and zinc alloys and their subsequent conversion layers for the cathodic corrosion protection of steel components represent a particular area of focus which is of growing importance. The use of cobalt (II) salts with its importance for the surface treatments industry, machine and plant engineering, automotive, improving the adhesion of paint layers when they are applied and other industrial sectors, such as the construction industry in Europe, must have a future in order to maintain the specific properties achieved with the application of electrochemical corrosion protection systems using zinc and zinc alloys with subsequent conversion layers. With effect from 1 July 2007, only trivalent conversion coatings were permitted to be used for the aftertreatment of galvanized / zinc alloy coated components for new registrations of standard cars. Cr(III) based conversion coatings with high levels of corrosion protection are only possible if cobalt salts are added to the application solutions and cobalt is included in the conversion coatings as a hydroxide (damp) and oxide (dry) in proportions of < 2% with reference to the conversion layer. The addition of cobalt salts is necessary in particular if corrosion protection is required in warm or hot environments (e.g. engine spaces, brakes, gearboxes etc. and in electrical parts in housings etc.). In these cases, solutions containing cobalt are state-of-the-art and indispensable up to now for zinc layers, zinc nickel and zinc iron alloys. Conclusions Cathodic corrosion protection using zinc and zinc alloys is an indispensable characteristic of coated steel components as used in all fields of industry, the trades and in households, and this protection is reinforced and maintained by conversion layers. Electrochemical anti-corrosion coatings extend the lifetime of steel parts by a factor of 20 – 100 and, as a result, make a valuable contribution to enabling resource-saving industrial and economic processes. There is little practical research available on the application of cobalt-free conversion coatings. In this context, comprehensive testing by electroplating firms is needed; optimisation and adjustment of applications need to be developed. In addition to this, it is necessary for end users to carry out function testing and day-to-day testing to determine and secure the properties of the coatings in realistic conditions. In many contexts, there are also safety aspects to be taken into consideration. On the market you cannot find cobalt free conversion coatings with anything approaching the results from those which include cobalt. Prohibiting the use of cobalt salts in conversion coatings would considerably reduce the

			corrosion protection of the parts so coated and that would have negative effects on the durability and sustainability of industrial efforts in Europe. The result would be increased consumption of resources and energy and this, in turn, would jeopardise the European targets for climate protection and efforts to reduce CO2 emissions. European manufacturers requiring the higher performance offered by cobalt conversion layers would simply arrange for coated articles to be imported from elsewhere thereby further jeopardising the already struggling surface treatment industry within the EU. MacDermid Scandinavia cannot therefore accept the arguments to include the Cobalt Salts (cobalt(II)-sulphate, cobalt(II)-nitrate, cobalt(II)-chloride and cobalt(II)-acetate) into the Appendix XIV of the REACH regulations. In the event that these substances are included in Appendix XIV of the REACH regulations we request that there has to be an exception to the rules to allow the use of Cobalt(II)-Salts for the purpose of creating conversion coatings in the fields of anti-corrosion zinc and zinc-alloy plating.
1203	2011/09/13 20:29 File attached Confidential	ERAMET SA BehalfOfAnOrganisation Company France	
1197	2011/09/13 20:19 File attached	European Biogas Association BehalfOfAnOrganisation International	

		NGO Czech Republic	
1182	2011/09/13 19:39 File attached	DALIC BehalfOfAnOrganisation Company France	The use of cobalt sulphate in wet surface treatment doesn't meet the criteria of prioritization: - Very low exposition for closed processes like DALISTICK and for BRUSH Plating under controlled conditions, - Very low quantity of solutions used with these processes, - Very occasionally/ few employee exposed, - No consumer exposure with the dangerous substance, - Environnemental exposition controlled by regulations.
1180	2011/09/13 19:35 File attached	Verband der Automobilindustrie VDA BehalfOfAnOrganisation Industry or trade association Germany	It is difficult to see why the current justification and proportionality of the relevant provisions to handle Cobalt (II) salts should need further approvals. National and European law already requires aspects of regulatory monitoring and control as well as to the increasing internationalization of requirements. Any additional configurable prioritization and approval of changes will only reproduce the current national requirements. These comments include also our opinion to: Cobalt dichloride Cobalt(II) carbonate Cobalt(II) diacetate Cobalt(II) dinitrate Cobalt(II) sulphate
1165	2011/09/13 19:07 File attached	 BehalfOfAnOrganisation Company United Kingdom	Application of divalent cobalt salts in Conversion layers in the European electroplating Industry Within the overall field of electroplating, zinc and zinc alloys and their subsequent conversion layers for the cathodic corrosion protection of steel components represent a particular area of focus which is of growing importance. The use of cobalt (II) salts with its importance for the surface treatments industry, machine and plant engineering, automotive, improving the adhesion of paint layers when they are applied and other industrial sectors, such as the construction industry in Europe, must have a future in order to maintain the specific properties achieved with the application of

			electrochemical corrosion protection systems using zinc and zinc alloys with subsequent conversion layers. With effect from 1 July 2007, only trivalent conversion coatings were permitted to be used for the aftertreatment of galvanized / zinc alloy coated components for new registrations of standard cars. Cr(III) based conversion coatings with high levels of corrosion protection are only possible if cobalt salts are added to the application solutions and cobalt is included in the conversion coatings as a hydroxide (damp) and oxide (dry) in proportions of < 2% with reference to the conversion layer. The addition of cobalt salts is necessary in particular if corrosion protection is required in warm or hot environments (e.g. engine spaces, brakes, gearboxes etc. and in electrical parts in housings etc.). In these cases, solutions containing cobalt are state-of-the-art and indispensable up to now for zinc layers, zinc nickel and zinc iron alloys. Conclusions Cathodic corrosion protection using zinc and zinc alloys is an indispensable characteristic of coated steel components as used in all fields of industry, the trades and in households, and this protection is reinforced and maintained by conversion layers. Electrochemical anti-corrosion coatings extend the lifetime of steel parts by a factor of 20 – 100 and, as a result, make a valuable contribution to enabling resource-saving industrial and economic processes. There is little practical research available on the application of cobalt-free conversion coatings. In this context, comprehensive testing by electroplating firms is needed; optimisation and adjustment of applications need to be developed. In addition to this, it is necessary for end users to carry out function testing and day-to-day testing to determine and secure the properties of the coatings in realistic conditions. In many contexts, there are also safety aspects to be taken into consideration. On the market you cannot find cobalt free conversion coatings with anything approaching the results from those which include cobalt. Prohibiting the use of cobalt salts in conversion coatings would considerably reduce the corrosion protection of the parts so coated and that would have negative effects on the durability and sustainability of industrial efforts in Europe. The result would be increased consumption of resources and energy and this, in turn, would jeopardise the European targets for climate protection and efforts to reduce CO2 emissions. European manufacturers requiring the higher performance offered by cobalt conversion layers would simply arrange for coated articles to be imported from elsewhere thereby further jeopardising the already struggling surface treatment industry within the EU. MacDermid Espanola S.A. cannot therefore accept the arguments to include the Cobalt Salts

			(cobalt(II)-sulphate, cobalt(II)-nitrate, cobalt(II)-chloride and cobalt(II)-acetate) into the Appendix XIV of the REACH regulations. In the event that these substances are included in Appendix XIV of the REACH regulations we request that there has to be an exception to the rules to allow the use of Cobalt(II)-Salts for the purpose of creating conversion coatings in the fields of anti-corrosion zinc and zinc-alloy plating.
1158	2011/09/13 18:54 File attached	BehalfOfAnOrganisation Company United Kingdom	Application of divalent cobalt salts in Conversion layers in the European electroplating Industry Within the overall field of electroplating, zinc and zinc alloys and their subsequent conversion layers for the cathodic corrosion protection of steel components represent a particular area of focus which is of growing importance. The use of cobalt (II) salts with its importance for the surface treatments industry, machine and plant engineering, automotive, improving the adhesion of paint layers when they are applied and other industrial sectors, such as the construction industry in Europe, must have a future in order to maintain the specific properties achieved with the application of electrochemical corrosion protection systems using zinc and zinc alloys with subsequent conversion layers. With effect from 1 July 2007, only trivalent conversion coatings were permitted to be used for the aftertreatment of galvanized / zinc alloy coated components for new registrations of standard cars. Cr(III) based conversion coatings with high levels of corrosion protection are only possible if cobalt salts are added to the application solutions and cobalt is included in the conversion coatings as a hydroxide (damp) and oxide (dry) in proportions of < 2% with reference to the conversion layer. The addition of cobalt salts is necessary in particular if corrosion protection is required in warm or hot environments (e.g. engine spaces, brakes, gearboxes etc. and in electrical parts in housings etc.). In these cases, solutions containing cobalt are state-of-the-art and indispensable up to now for zinc layers, zinc nickel and zinc iron alloys. Conclusions Cathodic corrosion protection using zinc and zinc alloys is an indispensable characteristic of coated steel components as used in all fields of industry, the trades and in households, and this protection is reinforced and maintained by conversion layers. Electrochemical anti-corrosion coatings extend the lifetime of steel parts by a factor of 20 – 100 and, as a result, make a valuable contribution to enabling resource-saving industrial and economic processes. There is little practical research available on the application of cobalt-free conversion coatings.

			In this context, comprehensive testing by electroplating firms is needed; optimisation and adjustment of applications need to be developed. In addition to this, it is necessary for end users to carry out function testing and day-to-day testing to determine and secure the properties of the coatings in realistic conditions. In many contexts, there are also safety aspects to be taken into consideration. On the market you cannot find cobalt free conversion coatings with anything approaching the results from those which include cobalt. Prohibiting the use of cobalt salts in conversion coatings would considerably reduce the corrosion protection of the parts so coated and that would have negative effects on the durability and sustainability of industrial efforts in Europe. The result would be increased consumption of resources and energy and this, in turn, would jeopardise the European targets for climate protection and efforts to reduce CO2 emissions. European manufacturers requiring the higher performance offered by cobalt conversion layers would simply arrange for coated articles to be imported from elsewhere thereby further jeopardising the already struggling surface treatment industry within the EU. MacDermid GmbH cannot therefore accept the arguments to include the Cobalt Salts (cobalt(II)-sulphate, cobalt(II)-nitrate, cobalt(II)-chloride and cobalt(II)-acetate) into the Appendix XIV of the REACH regulations. In the event that these substances are included in Appendix XIV of the REACH regulations we request that there has to be an exception to the rules to allow the use of Cobalt(II)-Salts for the purpose of creating conversion coatings in the fields of anti-corrosion zinc and zinc-alloy plating.
1149	2011/09/13 18:39	BehalfOfAnOrganisation Company Sweden	Proposal: To exempt from the authorization requirement the use of cobalt dichloride for production of cultured media to allow its continued use in the manufacture and purification of organic biomolecules. Justification: This exemption is necessary to avoid serious disruption to the pharmaceutical industry and to ensure that innovation in the European Union in this field is permitted to continue. Summary of Comments The purpose in submitting these comments is to ensure that ECHA is familiar with certain critical uses of cobalt dichloride and cobalt dichloride hexahydrate. Although our uses of these materials are in limited quantities, the uses are critical to the formation of cultured media. These uses are NOT as medicinal products. However, inability to use cobalt dichloride in cultured media media will impact the production of medicinal products and the pharmaceutical industry. There are no known substitutes for these uses. In the comments below we describe

			our uses in detail and the controls used to protect the health and safety of employees in accordance with EU directives. We encourage ECHA to exempt the use of cobalt dichloride for production of cultured media to allow its continued use in the manufacture and purification of organic biomolecules. This exemption in necessary to avoid serious disruption to the pharmaceutical industry and to ensure that innovation in the European Union in this field is permitted to continue. Comments On 1 December 2010 Cobalt Dichloride was classified as a carcinogen 1B, H350i, and toxic for reproduction category 1B H360F. These human health risks are attributable to inhalation exposures. While recognizing the importance of curtailing use of Cobalt Dichloride in applications whereby inhalation is a potential exposure path, there are a number of important uses of Cobalt Dichloride with minimal to no inhalation exposure and for which scientific research and medicinal products will be seriously impacted by inclusion in Annex XIV. We use less than 50 g of cobalt dichloride annually to produce cultured media. Cultured media is a liquid fermentation product made of bacteria that are selected to produce specific proteins and other bio organic compounds. Catalytic elements of the cobalt ion are an essential trace element necessary to activate the cultured media to produce desired proteins and other bio organic compounds. Once these desired proteins and bio organic compounds have been produced and are linked to separation media, the combined end product becomes an important tool for the pharmaceutical industry. The pharmaceutical industry uses the combined end product, which is not a medicinal product, to make vaccines and other medicinal products. Please note that although cobalt dichloride is an essential element needed to create the desired compounds, which are in turn necessary to manufacture the end product, there is no cobalt dichloride present in the combined and final end product. Following the fermentation step to produce the cultured media, the remainder of the cobalt dichloride, if any, is separated from the desired proteins and other bio organic compounds. It is also important to note that tools and processes used in the manufacture of pharmaceuticals are subject to strict validation requirements by the EU directive. Therefore prior to making a change in the production process, (e.g., use of a different tool to produce a vaccine), a pharmaceutical company must re-validate its production process. Such a revalidation, even if possible, would take a considerable amount of time and expense. ECHA should also note that the molecules which are generated by the cultured media are used in many research and development activities, and important to innovation in the European Union. Research areas include cell, DNA and protein mutations, cell transformation and other advanced techniques. Since the research and development is on the molecules generated by

			the cultured media and not on the cobalt dichloride, the exclusion provided in Article 56(3) of the REACH Regulation, "the obligations of Art. 56(1) and 56(2) … shall not apply to the use of substances in scientific research and development" would appear to not extend to this use of cobalt dichloride. Given the critical need for cobalt dichloride in this process, and the critical need for the end product to produce vaccines and medicines, the prohibition or restriction on the use of cobalt dichloride for this use would most be disruptive to the pharmaceutical industry and innovation in the European Union. The listing of cobalt dichloride in Annex XIV would curtail all of these activities. If ECHA should conclude that cobalt dichloride is to be listed in Annex XIV, then we strongly recommends and encourages ECHA to exempt uses of cobalt dichloride for production of cultured media to allow its continued use in the manufacture of proteins and other organic biomolecules. Existing EU legislation (98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work and 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work), as well as Member State national laws and regulations provide ample protections for the environment, health and safety. Companies preparing or using cobalt dichloride for culturing media must comply with the industrial hygiene framework of occupational exposure limits values recognized as good occupational hygiene practice (ECHA, 2009). (Examples of occupational exposure limit values, UK 0.1 mg/m3, Sweden 0.05 mg/m3. In addition, our use is in very small amounts < 50 g per year, and when preparing mixtures of cobalt dichloride for use in cultured media, the majority of cobalt chloride use and handling is in the form of solutions, thereby minimizing risk from inhalation.

1143	2011/09/13 18:36 File attached	BehalfOfAnOrganisation Company United Kingdom	Application of divalent cobalt salts in Conversion layers in the European electroplating Industry Within the overall field of electroplating, zinc and zinc alloys and their subsequent conversion layers for the cathodic corrosion protection of steel components represent a particular area of focus which is of growing importance. The use of cobalt (II) salts with its importance for the surface treatments industry, machine and plant engineering, automotive, improving the adhesion of paint layers when they are applied and other industrial sectors, such as the construction industry in Europe, must have a future in order to maintain the specific properties achieved with the application of electrochemical corrosion protection systems using zinc and zinc alloys with subsequent conversion layers. With effect from 1 July 2007, only trivalent conversion coatings were permitted to be used for the aftertreatment of galvanized / zinc alloy coated components for new registrations of standard cars. Cr(III) based conversion coatings with high levels of corrosion protection are only possible if cobalt salts are added to the application solutions and cobalt is included in the conversion coatings as a hydroxide (damp) and oxide (dry) in proportions of < 2% with reference to the conversion layer. The addition of cobalt salts is necessary in particular if corrosion protection is required in warm or hot environments (e.g. engine spaces, brakes, gearboxes etc. and in electrical parts in housings etc.). In these cases, solutions containing cobalt are state-of-the-art and indispensable up to now for zinc layers, zinc nickel and zinc iron alloys. Conclusions Cathodic corrosion protection using zinc and zinc alloys is an indispensable characteristic of coated steel components as used in all fields of industry, the trades and in households, and this protection is reinforced and maintained by conversion layers. Electrochemical anti-corrosion coatings extend the lifetime of steel parts by a factor of 20 – 100 and, as a result, make a valuable contribution to enabling resource-saving industrial and economic processes. There is little practical research available on the application of cobalt-free conversion coatings. In this context, comprehensive testing by electroplating firms is needed; optimisation and adjustment of applications need to be developed. In addition to this, it is necessary for end users to carry out function testing and day-to-day testing to determine and secure the properties of the coatings in realistic conditions. In many contexts, there are also safety aspects to be taken into consideration. On the market you cannot find cobalt free conversion coatings with anything approaching the results from those which include cobalt. Prohibiting the use of cobalt salts in conversion coatings would considerably reduce the

			corrosion protection of the parts so coated and that would have negative effects on the durability and sustainability of industrial efforts in Europe. The result would be increased consumption of resources and energy and this, in turn, would jeopardise the European targets for climate protection and efforts to reduce CO2 emissions. European manufacturers requiring the higher performance offered by cobalt conversion layers would simply arrange for coated articles to be imported from elsewhere thereby further jeopardising the already struggling surface treatment industry within the EU. MacDermid France cannot therefore accept the arguments to include the Cobalt Salts (cobalt(II)-sulphate, cobalt(II)-nitrate, cobalt(II)-chloride and cobalt(II)-acetate) into the Appendix XIV of the REACH regulations. In the event that these substances are included in Appendix XIV of the REACH regulations we request that there has to be an exception to the rules to allow the use of Cobalt(II)-Salts for the purpose of creating conversion coatings in the fields of anti-corrosion zinc and zinc-alloy plating.
1134	2011/09/13 18:25 File attached	BehalfOfAnOrganisation Company United Kingdom	Application of divalent cobalt salts in Conversion layers in the European electroplating Industry Within the overall field of electroplating, zinc and zinc alloys and their subsequent conversion layers for the cathodic corrosion protection of steel components represent a particular area of focus which is of growing importance. The use of cobalt (II) salts with its importance for the surface treatments industry, machine and plant engineering, automotive, improving the adhesion of paint layers when they are applied and other industrial sectors, such as the construction industry in Europe, must have a future in order to maintain the specific properties achieved with the application of electrochemical corrosion protection systems using zinc and zinc alloys with subsequent conversion layers. With effect from 1 July 2007, only trivalent conversion coatings were permitted to be used for the aftertreatment of galvanized / zinc alloy coated components for new registrations of standard cars. Cr(III) based conversion coatings with high levels of corrosion protection are only possible if cobalt salts are added to the application solutions and cobalt is included in the conversion coatings as a hydroxide (damp) and oxide (dry) in proportions of < 2% with reference to the conversion layer. The addition of cobalt salts is necessary in particular if corrosion protection is required in warm or hot environments (e.g. engine spaces, brakes, gearboxes etc. and in electrical parts in housings etc.). In these cases, solutions containing cobalt are state-of-the-art and

			indispensable up to now for zinc layers, zinc nickel and zinc iron alloys. Conclusions Cathodic corrosion protection using zinc and zinc alloys is an indispensable characteristic of coated steel components as used in all fields of industry, the trades and in households, and this protection is reinforced and maintained by conversion layers. Electrochemical anti-corrosion coatings extend the lifetime of steel parts by a factor of 20 – 100 and, as a result, make a valuable contribution to enabling resource-saving industrial and economic processes. There is little practical research available on the application of cobalt-free conversion coatings. In this context, comprehensive testing by electroplating firms is needed; optimisation and adjustment of applications need to be developed. In addition to this, it is necessary for end users to carry out function testing and day-to-day testing to determine and secure the properties of the coatings in realistic conditions. In many contexts, there are also safety aspects to be taken into consideration. On the market you cannot find cobalt free conversion coatings with anything approaching the results from those which include cobalt. Prohibiting the use of cobalt salts in conversion coatings would considerably reduce the corrosion protection of the parts so coated and that would have negative effects on the durability and sustainability of industrial efforts in Europe. The result would be increased consumption of resources and energy and this, in turn, would jeopardise the European targets for climate protection and efforts to reduce CO2 emissions. European manufacturers requiring the higher performance offered by cobalt conversion layers would simply arrange for coated articles to be imported from elsewhere thereby further jeopardising the already struggling surface treatment industry within the EU. MacDermid Italiana cannot therefore accept the arguments to include the Cobalt Salts (cobalt(II)-sulphate, cobalt(II)-nitrate, cobalt(II)-chloride and cobalt(II)-acetate) into the Appendix XIV of the REACH regulations. In the event that these substances are included in Appendix XIV of the REACH regulations we request that there has to be an exception to the rules to allow the use of Cobalt(II)-Salts for the purpose of creating conversion coatings in the fields of anti-corrosion zinc and zinc-alloy plating.

1127	2011/09/13 18:15 File attached	Central Association of Surface Treatment Professionals Germany (ZVO) BehalfOfAnOrganisation Industry or trade association Germany	The Central Association of Surface Treatment Professionals Germany (ZVO) herewith comments Application of divalent cobalt salts in cobalt or cobalt alloy layers in the European electroplating Industry: In the following the summarizing arguments and comments will be presented. For the detailed statements we do refer to the uploaded document. The comments are also valid for the other Cobalt Compounds. ---------- Cobalt (II) Sulphate, Cobalt (II) Dinitrate, Cobalt (II) Dichloride, Cobalt (II) Acetate and Cobalt (II) Carbonate a. Electrohemical processes for generating Cobalt and/or Cobalt-Alloy layers based on Cobalt compounds - These processes involve immersing the components to be coated in an aqueous cobalt salt solution. Metallic cobalt is deposited by the process of electrochemical reduction as metal themselves or in cobalt-alloys. - Cobalt and cobalt-alloy plating is considered to be the most desirable final finish for a majority of electroplated consumer goods and electronic equipment. Other surfaces cannot provide the same levels of quality and economy - The addition of cobalt-salts is necessary in particular if hardness is required in Gold alloy depsosits. - The result of this coating process is that the final surface of the component contains only metallic cobalt, which is a completely harmless substance from a consumer viewpoint. b. Potential health hazards - There are no figures available for absorption of soluble cobalt salts through the skin, but a sensitising effect on the skin is believed to exist. - No figures on acute inhalation toxicity of soluble cobalt compounds are available. However, two-year tests on rats indicate that there may be a hazard of chronic toxicity including damage to the respiratory tract. - Health hazards through unintentional oral intake of soluble cobalt salts do not exist. Wherever cobalt salts or compounds containing cobalt salts are handled, there are strict prohibitions in force to prevent eating, drinking and smoking. Unintentional intake can, therefore, be discounted. - Sensitisation of the skin can also be excluded. Sufficient protection exists by applying personal protective equipment (PPE). Employers are required to monitor the compliance of staff with the prescribed use of PPE.

			- If existing safety regulations are not adhered to, there are potential health hazards in handling cobalt (II) salts in day-to-day production environments, which is why workers must be subjected to regular health checks in order to detect any possible health damage at an early stage. It is important to note that, in coatings firms, only fluid mixtures are used for generating cobalt gold alloy layers. - Preventative health checks are required for workers who may be at risk from inhalation of cobalt compounds in the shape of respirable dust or aerosols or who may have skin contact. - To protect its workers, companies are required to take suitable measurements in the workplace to determine the extent of any effects of cobalt compounds and, in this way, to monitor the long-term effectiveness of the protective measures implemented – e.g. the efficiency of air extractors. - The employer is required to commission an approved doctor to carry out the preventative examinations. The requirement for an "approved" doctor is to ensure that he/she has the necessary technical knowledge, understands the technical equipment and work environment and is able to implement the regulations as required. c. Environmental protection when dealing with conversion layers - Solutions containing cobalt for generating cobalt or cobalt alloy layers require electricity. The application usually takes place at temperatures between 25 and 40°C. Where appropriate technical equipment has been installed on site, such as an air extractor, this manufacturing process does not generate any hazardous aerosols and the air in the workplace will not be contaminated in fact, - Cobalt is found in aqueous solutions as a cation. By adjusting the pH value to the alkaline range, the cobalt can be precipitated out as cobalt hydroxide at < 1 mg/L. There is currently no limit value in the German Waste Water Regulations for electroplating firms or in Appendix 40 to the regulations. d. Economic importance of electrochemical cobalt plating Cobalt and cobalt-alloy plating is considered to be the most desirable final finish for a majority of electroplated consumer goods and electronic equipment. Other surfaces cannot provide the same levels of quality and economy. The economic advantage is in the attractive appearance of the surface and the high degree of hardness in different alloys, chemical resistance and toxicological harmlessness, achieved with very little effort. Products plated in this way can be expected to have a long service lifetime. To cite just one example, consider the decorative cobalt-tin or cobalt-gold alloy plating of taps and fittings in sanitary installations. Even where they are subjected to tough professional use and cleaned with abrasive cleaners, these cobalt included surfaces will provide decades of protection on high-grade taps and similar parts. The

			technical and decorative cobalt alloy surface is thus a contribution to careful use of natural resources. e. Resulting Requirments > As described in the statements above the Central Association of Surface Treatment Professionals Germany (ZVO) cannot follow the arguments to include the Cobalt Salts (cobalt(II)-sulphate, cobalt(II)-nitrate, cobalt(II)-chloride and cobalt(II)-acetate) into the Appendix XIV of the REACH regulations. > In the event that these substances are included in Appendix XIV of the REACH regulations we demand that there has to be an exception to the rules to allow the use of Cobalt(II)-Salts for the purpose of anti-corrosion, decorative and bright Cobalt-Alloy-Plating.
1121	2011/09/13 18:09	Atotech Deutschland GmbH BehalfOfAnOrganisation Company Germany	This Comment is provided on behalf of the following organizations: ☐ Atotech Deutschland GmbH ☐ Atotech Österreich GmbH ☐ Atotech CZ, a.s. , Česká Republika ☐ Atotech SK, s.r.o., Slovenská Republika ☐ Atotech France ☐ Atotech Italia S.r.l. ☐ OOO Atotech-Chemeta, Lithuania ☐ Atotech Nederland B.V. ☐ Atotech Poland ☐ Atotech España S.A ☐ Atotech Skandinavien AB ☐ Atotech Slovenija, proizvodnja kemicnih izdelkov, d.d. ☐ Atotech UK Ltd. Comment on the applied approach of prioritization Article 58 paragraph 3 of the REACH regulation defines 3 criteria for the substances to be prioritized for inclusion in Annex XIV: (a) PBT or vPvB properties or (b) Wide dispersive use or (c) High volumes. To (a) None of the proposed Cobalt salts has PBT or vPvB properties.

			ECHA uses a scoring system for the determination of substances for prioritization of SVHC for inclusion in the List of Substances Subject for Authorization taking into account the aforementioned 3 criteria. The weighting of the single scoring results is as follows: - PBT or vPvB properties: 18% - Wide dispersive use: 41% - Volumes: 41%. There is no justification for this weighting based on the REACH regulation. Following ECHA's explanation for the weighting, the substances on the Candidate List are a defined as a selection of substances with very severe hazard properties. However the European Commission chose to highlight PBT and vPvB properties over e.g. CMR properties in the REACH regulation (e.g. Art. 58, para. 3) as risks of first mentioned substances are deemed to be higher. Keeping this in mind the weighting should be equal throughout the 3 criteria as otherwise the hazard (PBT and vPvB) properties would be underestimated against the volume and the wide dispersive use. To (b) The term 'wide-dispersive use' is explained in Chapter R.16.2.1.6 of the Guidance on Information Requirements and Chemical Safety Assessment as follows: 'Wide-dispersive use refers to many small point sources or diffuse release by for instance the public at large or sources like traffic. … Wide-dispersive use can relate to both indoor and outdoor use'. In the Technical Guidance Document for Risk Assessment of new and existing substances and biocides (2003, Chapter 5) this term is defined as follows: 'Wide-dispersive use refers to activities which deliver uncontrolled exposure. Examples relevant for occupational exposure: Painting with paints; spraying of pesticides. Examples relevant for environmental/consumer exposure: Use of detergents, cosmetics, disinfectants, household paints.' In addition, the ECETOC Report No. 93 on Targeted Risk Assessment (Appendix B) states: 'A substance marketed for wide-dispersive use is likely to reach consumers, and it can be assumed that such a substance will be emitted into the environment for 100% during or after use.' Definitions above do clearly not apply for the use of cobalt containing solutions in industrial application. Such applications are strictly controlled equipment-technology-wise, personnel-training-wise, safety-wise and personnel-safety wise respectively. Furthermore strict requirements apply for waste water and exhaust air cleaning technology. Consequently the use is absolutely not comparable with "sources like traffic", "painting with uncontrolled exposure" or (outdoor) "spraying of pesticides". In contrary to the definition of ECETOC Report No. 93 the substance never reach consumers and exposure to environment is minimal as a result of aforementioned measures.

			ECHA disregards the given definitions of wide dispersive use and postulates that this criterion can be regarded as directly driven by the number of sites. ECHA defines already a number of 100 sites in Europe where cobalt salts are used as "high" (maximum scoring = 3). The "Guidance on Information Requirements and Chemical Safety Assessment" gives traffic as an example for "many small point sources" with 240 million point sources in total. For the scoring the "number of sites" is multiplied by "Release". Here an inconsistency is present in the evaluation of the use of cobalt(II)sulphate in industrial surface treatment: • It is noted that the number of sites of use is unknown, however rated as "high". • It is stated that "Releases and exposure to workers might be controlled in most instances, however some of the uses appear to have a potential for significant worker exposure". Consequently the majority of uses is controlled and should be rated accordingly (score '1'). Assuming that few cases have a potential for high exposure does not justify the classification as "wide-dispersive use", which would base on a high number of point sources with uncontrolled exposure. In addition the approach of ECHA disregards the fact that the number if sites is not relevant for exposure of workers but the number of workers in contact with the concerned substance. For surface treatment application in industrial settings the number of persons working near the process solutions is very low. It can be estimated by 1-2 persons per site for automated systems and 4-5 persons per site for non-automated systems. Regulatory effectiveness ECHA extends the scoring approach with a verbal-argumentative evaluation. This shall facilitate the determination of the regulatory effectiveness of the authorization process. Considering that there are no existing alternatives for different uses of cobalt salts there will be no environmental or human health benefit as an authorization has to be granted for this specific technology. But this process will result in considerable costs and workload for the companies affected, resulting in downsides competition-wise on global level as other economies will simply continue using the substance without any bureaucratic hurdles. It should be the aim of European authorities that existing technology and operational conditions are optimized there where the exposition elevated. Please note here that this is only the case for some exceptions. Regulatory effectiveness would be much higher if consistent exposure and emission standards are agreed throughout Europe and forcefully controlled by member states authorities. Conclusion It is to note that cobalt salts in surface treatment applications do neither fulfill the criteria "PBT

			or vPvB properties" nor "wide-dispersive use" and regulatory effectiveness is also not present for this case. Consequently neither facts nor the formal process justify a prioritization of cobalt salts for REACH Annex XIV.
1095	2011/09/13 17:51 File attached	BehalfOfAnOrganisation Company United Kingdom	Application of divalent cobalt salts in Conversion layers in the European electroplating Industry Within the overall field of electroplating, zinc and zinc alloys and their subsequent conversion layers for the cathodic corrosion protection of steel components represent a particular area of focus which is of growing importance. The use of cobalt (II) salts with its importance for the surface treatments industry, machine and plant engineering, automotive, improving the adhesion of paint layers when they are applied and other industrial sectors, such as the construction industry in Europe, must have a future in order to maintain the specific properties achieved with the application of electrochemical corrosion protection systems using zinc and zinc alloys with subsequent conversion layers. With effect from 1 July 2007, only trivalent conversion coatings were permitted to be used for the aftertreatment of galvanized / zinc alloy coated components for new registrations of standard cars. Cr(III) based conversion coatings with high levels of corrosion protection are only possible if cobalt salts are added to the application solutions and cobalt is included in the conversion coatings as a hydroxide (damp) and oxide (dry) in proportions of < 2% with reference to the conversion layer. The addition of cobalt salts is necessary in particular if corrosion protection is required in warm or hot environments (e.g. engine spaces, brakes, gearboxes etc. and in electrical parts in housings etc.). In these cases, solutions containing cobalt are state-of-the-art and indispensable up to now for zinc layers, zinc nickel and zinc iron alloys. Conclusions

			Cathodic corrosion protection using zinc and zinc alloys is an indispensable characteristic of coated steel components as used in all fields of industry, the trades and in households, and this protection is reinforced and maintained by conversion layers. Electrochemical anti-corrosion coatings extend the lifetime of steel parts by a factor of 20 – 100 and, as a result, make a valuable contribution to enabling resource-saving industrial and economic processes. There is little practical research available on the application of cobalt-free conversion coatings. In this context, comprehensive testing by electroplating firms is needed; optimisation and adjustment of applications need to be developed. In addition to this, it is necessary for end users to carry out function testing and day-to-day testing to determine and secure the properties of the coatings in realistic conditions. In many contexts, there are also safety aspects to be taken into consideration. On the market you cannot find cobalt free conversion coatings with anything approaching the results from those which include cobalt. Prohibiting the use of cobalt salts in conversion coatings would considerably reduce the corrosion protection of the parts so coated and that would have negative effects on the durability and sustainability of industrial efforts in Europe. The result would be increased consumption of resources and energy and this, in turn, would jeopardise the European targets for climate protection and efforts to reduce CO2 emissions. European manufacturers requiring the higher performance offered by cobalt conversion layers would simply arrange for coated articles to be imported from elsewhere thereby further jeopardising the already struggling surface treatment industry within the EU. MacDermid plc cannot therefore accept the arguments to include the Cobalt Salts (cobalt(II)-sulphate, cobalt(II)-nitrate, cobalt(II)-chloride and cobalt(II)-acetate) into the Appendix XIV of the REACH regulations. In the event that these substances are included in Appendix XIV of the REACH regulations we request that there has to be an exception to the rules to allow the use of Cobalt(II)-Salts for the purpose of creating conversion coatings in the fields of anti-corrosion zinc and zinc-alloy plating.

1085	2011/09/13 17:35 File attached	BehalfOfAnOrganisation Company Switzerland	Cobalt dichloride does not fulfill ECHA's three criteria to prioritize substances (i.e. wide-dispersive use, PBT or vPvB and high production volume). As mentioned in ECHA's background document the volume of cobalt dichloride regulated by the authorization in the EU is quite low and the uses of the substance are not considered wide and dispersive. Cobalt dichloride plays an essential role in biotechnology and in vitro diagnostics. It is used as a trace element in fermentation and a cofactor for the enzyme terminal transferase. Both these uses are not considered to be wide and dispersive and no consumer use has been identified. Furthermore, cobalt dichloride has no PBT or vPvB properties and is rarely found in the final product. Even though cobalt dichloride itself has been given a "moderate" priority, it has been grouped with other Co salts for prioritisation due to "regulatory efficiency". We are in agreement with this approach. The regulatory efficiency approach should however include exemptions from authorisation for the specific uses of soluble Cobalt (II) salts in the manufacturing of pharmaceutical products and in vitro diagnostic.
1075	2011/09/13 17:19 File attached Confidential	SurTec Deutschland GmbH BehalfOfAnOrganisation Company Germany	"Comments by The Central Association of Surface Treatment Professionals Germany (ZVO)on the subject of Proposals for Prioritising Cobalt (II) Sulphate, Cobalt (II) Dinitrate, Cobalt (II) Dichloride and Cobalt (II) Acetate for Inclusion in Appendix XIV of the REACH Regulations in connection with the public consultation up to 14 September 2011 Application of divalent cobalt salts in Conversion layers in the European electroplating Industry"

1045	2011/09/13 16:44	Agoria BehalfOfAnOrganisation Industry or trade association Belgium	The prioritization of the different cobalt salts does not seem appropriate for Agoria. The classification makes these substances surely eligible to be prioritized but there are serious doubts on the claimed widespread use of cobalt dichloride as well as on the lack of clear exposure which has an impact on the prioritization. Agoria does not believe that these cobalt salts should be prioritized at this stage. The reported quantity for the different cobalt salts in the Annex XV dossier, are not reflecting the actual reality within the EU. In global the actual use is significantly less than the volume mentioned in the Annex XIV files. On top of this between 90 to 99% of the use is an intermediate use which is exempted from the authorization procedure. (cobalt sulphate >97%, cobalt diacetate > 90%, cobalt carbonate > 94%, cobalt dinitrate > 99% and cobalt dichloride > 99%) This means that the volume of cobalt dichloride in the scope of the authorization procedure is negligible according to our estimations. The exposure to cobalt salts is furthermore well controlled as is documented by the Chemical Safety report submitted for the REACH registration for these cobalt salts. The CSR includes an exposure scenario for each identified and reported use and each of these exposure scenario resulted in a risk characterization ratio below 1. This means that all identified uses of cobalt salts within the EU are well controlled. Cobalt salts are also already controlled by different existing legislations to protect human health as well as the environment. The carcinogen at work directive (2004/37/EC) imposes the need for a risk management at the work place including the taking of the necessary risk management options. Also the IPPC directive (2008/1/EC) is providing the framework for limiting the impact on the environment. The general restriction of the supply of CMR's for supply to the general public is also limiting the consumer exposure. (REACH) On the potential substitution there is a general misconception regarding interchangeability. Cobalt salts cannot be substituted by other cobalt salts in most of the applications. In nearly all cases this is neither technical nor economically feasible to implement such a substitution. In this respect we are not supporting at all the grouping of all cobalt salts to be prioritized which is according to our information done out of 'fear' of this NON-existing potential for substitution. The socio-economic impact of the authorization is clearly underestimated according to Agoria. First of all, we are confused of the diverging signals given, taken into account that cobalt was identified as a critical raw material within the Raw Materials Initiative of the European Commission linked to the economic importance in different future technologies such as batteries, combating air pollution. In this report the substitution potential is described as: "Substitutes for cobalt are constantly being sought mainly because of the metal price volatility. However, due to the unique properties of cobalt, there are limited options for substitution and

			almost all substitutes result in reduced product performance." This seems a conflicting signal with this proposal to prioritize cobalt salts for authorization and thus affecting even further the long term availability for cobalt salts. The different cobalt salts are used in a broad range of applications the following sectors: - The use as catalysts in the oil refining, synthetic fibres, plastics, desulphurised fuels, oxidation catalyst for the car industry, esterfication, - Hardmetals - Rechargeable batteries for industrial applications, hybrid cars, computers, power tools, phones, - Electroplating such as anodizing, wear resistance, electronics, corrosion resistance, - Other applications such as animal feed, ceramics, tyres, inks/dyes, paint driers, pigments, biotechnology. Several of these applications, in which cobalt salts are used, in general as an intermediate, contribute strongly to the evolution to a more sustainable society. Finding alternatives is not that easy given the broad applications, the technical and economic challenges linked to substitution. The cobalt salts are not found in the final product given that it is mostly used as an indispensable intermediate within the value chain. This means also that exposure to the end-consumer can be exempted.
1022	2011/09/13 16:10	BehalfOfAnOrganisation Company Germany	

980	2011/09/13 14:49 File attached	BehalfOfAnOrganisation Industry or trade association Germany	Cathodic corrosion protection using zinc and zinc alloys is an indispensable characteristic of coated steel components as used in all fields of industry, the trades and in households, and this protection is reinforced and maintained by conversion layers. Electrochemical anti-corrosion coatings extend the lifetime of steel parts by a factor of 20 – 100 and, as a result, make a valuable contribution to enabling resource-saving industrial and economic processes. There is little practical research available on the application of cobalt-free conversion coatings. In this context, comprehensive testing by electroplating firms is needed; optimisation and adjustment of applications need to be developed. In addition to this, it is necessary for end users to carry out function testing and day-to-day testing to determine and secure the properties of the coatings in realistic conditions. In many contexts, there are also safety aspects to be taken into consideration. On the market you cannot find cobalt free conversion coatings with nearly the same results than including cobalt. Prohibiting the use of cobalt salts in conversion coatings would considerably reduce the corrosion protection of the parts so coated and that would have negative effects on the durability and sustainability of industrial efforts in Europe. The result would be increased consumption of resources and energy and this, in turn, would jeopardise the European targets for climate protection and efforts to reduce CO2 emissions. As described in the attached statements above the German Fasteners Association (DSV) cannot follow the arguments to include the Cobalt Salts (cobalt(II)-sulphate, cobalt(II)-nitrate, cobalt(II)-chloride and cobalt(II)-acetate) into the Appendix XIV of the REACH regulations. In the event that these substances are included in Appendix XIV of the REACH regulations we demand that there has to be an exception to the rules to allow the use of Cobalt(II)-Salts for the purpose of anti-corrosion, decorative and bright Cobalt-Alloy- Plating. Attached documents we would like to refer to: Central Association of Surface Treatment Professionals Germany (ZVO) “Application of divalent cobalt salts in Conversion layers in the European electroplating Industry”
978	2011/09/13 14:48 File attached	BehalfOfAnOrganisation Company France	See attached file.

970	2011/09/13 14:34	Sweden MemberState Sweden	We support the prioritisation of cobalt dichloride for inclusion in Annex XIV. Based on the criteria, the substance has moderate priority, but as cobalt salts may be replaced by other cobalt salts with the same hazard profile, a grouping approach is warranted.
957	2011/09/13 14:21	United Kingdom MemberState United Kingdom	Based on the prioritisation criteria and the possibility of significant workplace exposure we agree with the proposal to recommend the following substances for inclusion in Annex XIV. Cobalt (II) Sulphate Cobalt (II) diacetate However, whilst we agree that grouping certain compounds, such as transition metal salts, together is a sensible approach, there should be evidence to support their interchangability. In the case of the following cobalt compounds we are not sure that this is the case and this warrants further investigation before these substances, which only score moderately according to the prioritisation criteria, are recommended for inclusion in Annex XIV. Cobalt (II) dinitrate Cobalt (II) Carbonate Cobalt dichloride
931	2011/09/13 13:15	Dr. Kubitz GmbH BehalfOfAnOrganisation Company Germany	Cobalt sulfate solutions with additions of phosphorus are being used as electrolyte for the deposition of cobalt phosphorus coatings. These serve after coding as scale in automatic angular or distance measuring e.g. in the machine tool industry. Their advantage over all competing systems is robustness against dirt and adverse environmental conditions and their modest requirements for space. They are contained in some of the products of at least one of the largest ball bearing manufacturers (who however might not be aware of this fact)

920	2011/09/13 12:43 File attached	BehalfOfAnOrganisation Company Germany	Our company cannot follow the arguments to assume the cobalt-salts into the appendix XIV of the REACH regulations. According to this, we agree with the former statement of the Central Association of Surface Treatment Professionals Germany (ZVO). Link : http://www.zvo.org/uploads/media/Kommentierung_ZVO_Cobaltsalze_galvanisch_V20110911_ENGLISCH.pdf Another aspect is the global market. The ban of cobalt-salts would weaken the euroean industry, especially the export-oriented mechanical engineering. After the real-estate crisis 2007-2010 and the Euro-crisis, started in 2011, another self-made mechanical-engineering-crisis would damage Europe. As small company of craftsmanship, we estimate, that our company is going to loose up to 50% of the workplaces.
914	2011/09/13 12:31	SRM, Solvent Resins Manufacturers, a sector group of CEFIC BehalfOfAnOrganisation Industry or trade association Netherlands	Related to the ECHA draft recommendation for the prioritization of 5 cobalt salts (cobalt carbonate, cobalt dichloride, cobalt diacetate, cobalt dinitrate, cobalt sulphate), we would like to highlight some aspects of the value chain of alkyd paints SRM-members do not produce nor use any of the 5 mentioned cobalt-salts, but are a part of the paint value chain that uses certain Cobalt-compounds as drier catalysts in alkyd based paints. These cobalt compounds are produced from cobalt-dichloride as intermediate. Value chain of alkyd paints Co-dichloride is used to produce certain so called cobalt-driers. These are cobalt-carboxylates, like Co-octoate. This is an intermediate use of Co-dichloride which should be exempted from authorization. Because Co-dichloride is mainly used as an intermediate its inclusion into the Annex XIV of REACh should not be prioritized. Cobalt driers serve as drier-catalysts to enhance the drying of so called alkyd based paints. These alkyd based paints are versatile paint systems that can be used in many applications, giving improved appearance and protection to many objects and surfaces. Main applications are in building and construction (professional and consumer use), and industrial applications. SRM members are active in production and marketing of alkyd based resins. Their customers, the paint manufacturers, make paints out of these resins. This is done by adding, amongst others, cobalt driers to the resins, next to pigments and other additives. The use of cobalt-driers in alkyd based paints is vital for the technical performance of the systems. When it would not be available anymore the use of the present alkyd based paints would be impaired. This also goes for newly developed environmentally friendly systems, based on alkyd systems. To our knowledge, a good alternative has not been found yet. The impact on the paint market can be considerable. Alkyd based paints make up for a large

			proportion of the total paint market (app. 25%). The affected market size is estimated at 400-500 kilotons of alkyd resins, which corresponds to 1500-1800 kilotons of alkyd paints. Of the latter is 55% used for building and construction, the rest is industrial. Next to he considerable market size of these alkyd paints, one of the advantages of the alkyd based paints is that they are based on renewable materials (vegetable oils) and that they are basis for many new innovative developments, which are geared towards developing environmentally friendly paint systems, e.g. with lower Volatile Organic Compounds (VOC's) contents (like "high solids" systems and water-borne systems), and/or increased content of renewable materials. SRM role in value chain The SRM represents companies that are active in production and marketing of alkyd based resins, which serve as raw materials for the production of alkyd paint. We do not produce or use neither the 5 mention cobalt salts nor the cobalt driers. Our customers, the paint producers, use cobalt driers, but do not produce them, or use/produce any of the 5 cobalt salts for prioritization. So although SRM members and their customers do no produce or use one of the 5 cobalt salts recommended for prioritization, we would like to argue that, because Co-dichloride is mainly used as an intermediate its inclusion into the Annex XIV of REACh should not be prioritized. We would also like to argue that cobalt driers, made from Co-dichloride as intermediate, are very important for alkyd resins, and paint based on these resins. They are important not only for a large proportion of the paint market, but are also needed for new environmental friendly paint systems.

907	2011/09/13 12:03	Individual Germany	Sehr geehrte Damen, sehr geehrte Herren, als Beschlagshersteller haben wir mehrere Anlagen mit kobalthaltigen Passivierungen im Einsatz. Die Einführung in unserer Branche erfolgte vor ca. 10 Jahren. Die damaligen Produkte waren nicht ausgereift und man musste eine Rückschläge hinnehmen. Der versprochene Korrosionsschutz wurde nie erreicht. Erst mit Hilfe von Top Coats auf den Passivierungsschichten konnten annehmbare Werte erreicht werden. Hierzu mussten viele bestehende Anlagen umgebaut werden und auch erneuert werden. Vielfach werden heute nanohaltige Produkte eingesetzt. Ein Ersatz von kobalthaltigen Passivierungen bedeutet, dass wieder nicht ausreichende getestete Verfahren verwendet werden müssen. Die negativen technischen Auswirkungen stellen sich immer erst heraus, wenn die Systeme belastet werden. Die Standzeit der Verfahren sind begrenzt und müssen aufwendig entsorgt werden. Trägersubstanzen dieser Passivierungen können, in Kombination mit anderen Stoffen, in der anschließenden Klärtechnik zu Störungen führen. Solche Prozesse werden meistens bei den Entwicklungen von neuen Produkten nur am Rande betrachtet. Der Schutz der Mitarbeiter ist heute in den modernen Anlagen gewährleistet das Thema PSA st vielfach diskutiert worden. Fazit: die kobalthaltigen Passivierungen haben jetzt einen ausgereiften Stand erreicht, mit einem kalkulierbarem minimalem Risiko. Der Kobaltgehalt in den Passivierungen ist auf einem Minimum angesetzt. Der Prozess ist beherrschbar. Ein Verbot der Kobaltsalze bedeutet neue Verfahren, die nicht getestet sind und andere Risiken beinhalten. Ich verweise hier auf die Diskussion über nanohaltige Stoffe. Für Rückfragen stehe ich Ihnen zur Verfügung. Mit freundlichem Gruß Thomas Köster

883	2011/09/13 11:35 File attached Confidential	BehalfOfAnOrganisation Company Germany	Regarding Cobalt Dichloride: There is no technically suitable alternative available in the market that provides for all of the following: • Accuracy of RH indication – Cobalt Bromide is limited to
862	2011/09/12 23:05 File attached	Central Association of Surface Treatment Professionals Germany (ZVO) BehalfOfAnOrganisation Industry or trade association Germany	The Central Association of Surface Treatment Professionals Germany (ZVO) herewith comments Application of divalent cobalt salts in Conversion layers in the European electroplating Industry: In the following the summarizing arguments and comments will be presented. For the detailed statements we do refer to the uploaded document. The comments are also valid for the other Cobalt Compounds. ---------- Cobalt (II) Sulphate, Cobalt (II) Dinitrate, Cobalt (II) Dichloride and Cobalt (II) Acetate a. Chemical processes for generating conversion layers based on Cobalt compounds - EU Directive 2000/53/EC relating to end-of-life vehicles passed by the European Parliament and the subsequent EU Directive 2002/95/EC (RoHS Directive) prohibited the use of chromated coatings for cars and electronic components. - Due to the extensive efforts of the supplier industries, coatings firms and the automotive industry, passivation coatings, hitherto only available as laboratory tests based on trivalent chromium compounds, were developed to the point where they could be offered to the market. - It became apparent that Cr(III) based conversion coatings with high levels of corrosion protection are only possible if cobalt salts are added to the application solutions and cobalt is included in these as a hydroxide (damp) and oxide (dry) in proportions of < 2% with reference to the conversion layer. - The addition of cobalt salts is necessary in particular if corrosion protection is required in warm or hot environments (e.g. engine spaces, brakes, gearboxes etc. and in electrical parts in housings etc.). In these cases, solutions containing cobalt are state-of-the-art and indispensable up to now for zinc layers, zinc nickel and zinc iron alloys.

			b. Potential health hazards - There are no figures available for absorption of soluble cobalt salts through the skin, but a sensitising effect on the skin is believed to exist. - No figures on acute inhalation toxicity of soluble cobalt compounds are available. However, two-year tests on rats indicate that there may be a hazard of chronic toxicity including damage to the respiratory tract. - Health hazards through unintentional oral intake of soluble cobalt salts do not exist. Wherever cobalt salts or compounds containing cobalt salts are handled, there are strict prohibitions in force to prevent eating, drinking and smoking. Unintentional intake can, therefore, be discounted. - Sensitisation of the skin can also be excluded. Sufficient protection exists by applying personal protective equipment (PPE). Employers are required to monitor the compliance of staff with the prescribed use of PPE. - Any potential risk from inhaling aerosols containing cobalt salts or particles is counteracted by the provision of extractor systems. The effectiveness of these protective measures is ensured by regular workplace measurements performed by the technical monitoring services of the Occupational Accident Insurance Associations. Measurements took place at a number of places in a company in 2004 that uses passivation substances containing cobalt sulphate for passivating electrochemically deposited layers of zinc. - If existing safety regulations are not adhered to, there are potential health hazards in handling cobalt (II) salts in day-to-day production environments, which is why workers must be subjected to regular health checks in order to detect any possible health damage at an early stage. It is important to note that, in coatings firms, only fluid mixtures are used for generating conversion layers. - Preventative health checks are required for workers who may be at risk from inhalation of cobalt compounds in the shape of respirable dust or aerosols or who may have skin contact. - To protect its workers, companies are required to take suitable measurements in the workplace to determine the extent of any effects of cobalt compounds and, in this way, to monitor the long-term effectiveness of the protective measures implemented – e.g. the efficiency of air extractors. - The employer is required to commission an approved doctor to carry out the preventative examinations. The requirement for an "approved" doctor is to ensure that he/she has the necessary technical knowledge, understands the technical equipment and work environment and is able to implement the regulations as required. c. Environmental protection when dealing with conversion layers

			- Solutions containing cobalt for generating chromium (III) based conversion layers do not require electricity. The application usually takes place at temperatures between 25 and 40°C, in some cases up to 65°C. Where appropriate technical equipment has been installed on site, such as an air extractor, this manufacturing process does not generate any hazardous aerosols and the air in the workplace will not be contaminated in fact, - Cobalt is found in aqueous solutions as a cation. By adjusting the pH value to the alkaline range, the cobalt can be precipitated out as cobalt hydroxide at < 1 mg/L. There is currently no limit value in the German Waste Water Regulations for electroplating firms or in Appendix 40 to the regulations. d. Economic importance of electrochemical chromium plating - Sales of passivating solutions (chromium (III) based) and chromating solutions (chromium VI based) alone for electrochemical galvanising in Europe amount to approx. € 40 m per year, of which approx. € 16 m are in Germany. This equates to a turnover and cost proportion of around 2.5% among electroplating firms applying zinc coatings. This is equivalent to a total production volume in coatings firms throughout Europe of around € 1.6 bn. - The approx. € 1.6 bn of added value generated Europe-wide by companis involved in electrochemical galvanising would be directly affected by a decision to prohibit the use of cobalt (II) salts in Europe. - The proportion of the European market covered by German companies is approx. 40% so the production volume generated by galvanising companies in Germany amounts to approx. € 640 m. e. Macroeconomic importance of conversion coatings - A sales volume of approx. 45% of the parts coated by galvanising firms is destined for the automotive industry, e.g. for housings, rails, brake parts, piping, safety clamps, gearbox and shock absorber caps, fuel pumps, screws etc. According to the VDA (as at 25 March 2011), 5,552,409 cars and 353,576 commercial vehicles were built in Germany in 2010. - Around 20% of the sales turnover of parts handled by galvanising firms is for the manufacture of fittings for windows. The total demand of chemicals for electrochemical surface treatments in Europe amounts to approx. € 25 m per year, of which around € 8 m is for conversion coating using cobalt. f. Conclusions - Cathodic corrosion protection using zinc and zinc alloys is an indispensable characteristic of coated steel components as used in all fields of industry, the trades and in households, and this protection is reinforced and maintained by conversion layers. Electrochemical anti-corrosion coatings extend the lifetime of steel parts by a factor of 20 – 100 and, as a result, make a

			valuable contribution to enabling resource-saving industrial and economic processes. - There is little practical research available on the application of cobalt-free conversion coatings. In this context, comprehensive testing by electroplating firms is needed; optimisation and adjustment of applications need to be developed. In addition to this, it is necessary for end users to carry out function testing and day-to-day testing to determine and secure the properties of the coatings in realistic conditions. In many contexts, there are also safety aspects to be taken into consideration. On the market you cannot find cobalt free conversion coatings with nearly the same results than including cobalt. - Prohibiting the use of cobalt salts in conversion coatings would considerably reduce the corrosion protection of the parts so coated and that would have negative effects on the durability and sustainability of industrial efforts in Europe. The result would be increased consumption of resources and energy and this, in turn, would jeopardise the European targets for climate protection and efforts to reduce CO2 emissions. g. Resulting Requirments > As described in the statements above the Central Association of Surface Treatment Professionals Germany (ZVO) cannot follow the arguments to include the Cobalt Salts (cobalt(II)-sulphate, cobalt(II)-nitrate, cobalt(II)-chloride and cobalt(II)-acetate) into the Appendix XIV of the REACH regulations. > In the event that these substances are included in Appendix XIV of the REACH regulations we demand that there has to be an exception to the rules to allow the use of Cobalt(II)-Salts for the purpose of anti-corrosion, decorative and bright Cobalt-Alloy-Plating.
838	2011/09/12 18:40 File attached	LKS Kronenberger GmbH Metallveredlungswerk BehalfOfAnOrganisation Company Germany	Occupational health and safety ☐ oral absorption # no possibility for oral absorption because of existing: no-smoking-rule in working areas no-drinking-rule in working areas no-eating-rule in working areas # no need to worry about oral absorption, because workers are trained and are informed about every risk of working with Cobalt(II)-Chlorid ☐ Absorption by skin # no acute dermal toxicity values for skin absorption of Cobalt(II)-Chlorid existing or known # no possibility for skin absorption because of sufficient

			protections: gloves protection clothing eye protection etc. # liability to the employer for controlling of general wearing these personal protections by the workers ☐ Absorption by inhalation # no acute inhalation toxicity values for absorption of Cobalt(II)-Chlorid existing or known # by studies on rats (lasting for two years) there is a suspicion for causing chronical damage to the respiratory system # no possibility for inhalation absorption because of air adequate exhaustion systems at plating and passivation lines # the exhaustion system efficiency is controlled regularly by measurements the atmosparic load (measurements done by the government safety organisations) # examples of these measurements (in the year 2004, passivation solution containing Cobalt-Sulphate; they can be assigned to Cobalt(II)-Chlorid, because of the same discussed cation: Cobalt(II)): Measurement 1 = < 0,001 mg/m³ Measurement 2 = < 0,00063 mg/m³ Measurement 3 = < 0,00061 mg/m³ Measurement 4 = < 0,00059 mg/m³ Offical limite value in 2004: < 0,1 mg/m³. # Conclusion no.1: By using the suitable machine technique no difficulties in following the offical limitation and to avoid charge to the workers # the plating and conversion coating industry only uses Cobalt(II)-Chlorid solved by the supplier. By using mixtures only no respirable dust is coming out # Conclusion no.2: By observing all precautions no

			endangering potential for workers and the environment caused by Cobalt(II)-Chlorid. To avoid repeating arguments a many times please see attachment, page 5, precautions are listed in chapter 4.1. and 4.1.1 Occupational diseaes # unknown (or not existing) Alternative techniques ☐ at present no technical acceptable Cobalt-free passivation system is available ☐ Cobalt-free passivation systems are still on development state, no long term experiences existing – and because of beeing applicated as corrosion protection at automobile safety parts (e.g. screws, airbag systems) there is a very high safety risk to ban these passivation system without significant field testings ☐ Cobalt-free passivation systems are less effective when the zinc plated and passivated parts are heat burdend ☐ Conclusion no.3: Conversion layers generated on zinc platings need to achieve the necessary and by customers expected corrosion protection behaviour hexavalent Chromium or Cobalt(II)-Chlorid. Without hexavalent Chromium or Cobalt(II)-Chlorid the zinc plating is not able to resist chemical/corrosion attack very long. The prevention of hexavalent Chromium in passivation solutions (for example by: EU-legislation 2003/53/EG „End-of-life-Vehilce" or 2002/95/EG „Waste Eletric and Electronial Equipement") and achieving an corrosion resistance comparable to the hexavalent Chromium passivation solution necessitates Cobalt(II)-Chlorid. Overall implications, sozio-economic benefits ☐ the zinc plating and conversion coating industry in Europe generate a business volume of € 1.600 millions ☐ these business volume will be affected by an embargo of Cobalt(II)-Chlorid

			☐ by an embargo onto the application of Cobalt(II)-Chlorid the European surface treatment industry will be affected directly ☐ sozio-economic benefit exposed by the example „automotive“: # estimated 45 % of the € 1.600 million business volume belong to automotive customers # in 2010 in Germany 5.500.000 cars and 353.500 lorries were produced # at an average € 25.000 retail price per unit # therefore total business volume of about € 140.000 millions just in Germany (!) # also per unit: about 500-1000 assembled parts are zinc plated and passivated # this means long time corrosion protection and safety during car life time for all security relevant parts on an automobile # this means that only in German automobile industry 2.800 millions parts are zinc plated, passivated and achieve so their corrosion resistance. Without Cobalt(II)-Chlorid these 2.800 millions will corrode in the cars very soon and safety will be lost. Or the automobile industry will buy these zinc plated and with Cobalt(II)-Chlorid passivased parts outside the EU, where it is still allowed ☐ sozio-economic benefit exposed by the example „window locking catch“: # in Europe business volume of the zinc platers belongs up to € 100 millions # the European plating and surface industry employs for window locking catches about 3000 workers # the European window locking catches producers have a business volume of estimated € 3.000-4.000 millions and 16.000-20.000 workers # considering that every workers has got a familiy with two more family members staying „at home“, therefore

			32.000-60.000 people assure their subsistence indirectly by zinc plating and passivation Summarized comments ☐ passivation of zinc plating/layers by using Cobalt(II)-Chlorid to avoid the otherwise necessary use of hexavalent Chromium is an important and not replaceable technique to improve corrosion resistance of steel and other materials ☐ corrosion resistance is improved up to 20-100 times by this technique ☐ therefore passivation by using Cobalt(II)-Chlorid is an material and resource efficiency manner to improve properties of common construction materials ☐ an Cobalt(II)-Chlorid embargo will cost at least 16.000-20.000 jobs in Europe, rather much more. This means that more than 32.000 people assure their subsistence directly and indirectly by zinc plating and passivation with Cobalt(II)-Chlorid ☐ to avoid repeating we refer to conclusion no. 1 to 3 mentioned above ! ☐ by an embargo of Cobalt(II)-Chlird LKS Kronenberger GmbH has to close two plating linses and about 20 workers will be set free.

817	2011/09/12 17:07	BehalfOfAnOrganisation Company United Kingdom	Our company provides comments as EU producer of Cobalt dichloride. Our company is member of the Cobalt REACh Consortium and as such, participated to its mapping exercise and provided information on tonnages, manufacture, uses and releases; aggregated results from this exercise are available from the Consortium and in the REACh registration dossier. Manufacture and releases from manufacture (section 2.2.2.1. – page 2): Russia is out of EU; as such, we consider the data from Russia not appropriate to give information on current practices in EU. We do not think that exposure data reported in the Lison study from 1994 are relevant to describe the current EU manufacturing releases: this study appears not to be specific to Cobalt dichloride exposure and is quite old to be representative of current practice. Updated exposure data from manufacture have been provided in REACh registration dossiers (prepared by Cobalt REACh Consortium) and can be used as reference. Uses and releases from uses (section 2.2.2.2. – pages 2 to 6): We confirm the following uses on customers' information: • Use as intermediate to produce other chemicals – exempted from Authorisation: This is by far the main use (> 90% tonnage). This includes the manufacture of Cobalt carboxylates to be used as rubber adhesion promoters in tyres. Downtream users in porcelain and ceramic applications also confirmed the use of Cobalt dichloride as intermediate; Cobalt dichloride is used for the production of ceramic glaze to change color. Cobalt dichloride is also used for the manufacture of vitamin B12. • Use in animal feed – exempted from Authorisation: The use of cobalt dichloride as an animal food supplement would fall within the scope of feed safety regulation (EC 178/2002). • Use in fertilizers: Cobalt dichloride is used in fertilizers formulations as trace element. • Use in other formulations: Customers report the use of Cobalt dichloride as trace element in biogas. Such use may be exempted from Authorisation if customers confirm that Cobalt dichloride content is < 0.01%. Cobalt dichloride is also used in formulations as corrosion inhibitor. • Use in surface treatments applications: This includes plating and passivations applications. Cobalt dichloride is used in such applications in damp crystal form. We do not think that the exposure data from Danish Environmental Agency are relevant: they appear not to be specific to Cobalt dichloride. Similarly, the dust concentrations measured in production facilities and refineries have not been identified to be specifically Cobalt dichloride

			dusts. We also consider the study on porcelain dinnerware (1970's) too old to be representative of current practices; once again, we do not know if results are specific to Cobalt dichloride. Updated exposure data from uses have been provided in REACh registration dossiers (prepared by Cobalt REACh Consortium) and can be used as reference. Main exposure route is inhalation which is not at risk in good handling practices for solution physical form (> 90% tonnage). Cobalt dichloride in solid form is a damp crystal, therefore the inhalation risk is also negligible. This solid form is mainly used in surface treatment applications, but we only have less than 5 EU downstream users, which means that the number of workers potentially exposed is very low. Availability of information on alternatives (section 2.3. – page 7): Even a number of common uses have been registered for Cobalt dichloride and other salts, the assumption of mutual substitution is incorrect. Main customers confirmed that the uses of Cobalt dichloride are specific and no substitution is available including the substitution by any other Cobalt salt. Existing specific Community Legislation relevant for possible exemption (section 2.4. – page 7): The use of Cobalt dichloride in animal feed falls under the scope of food safety regulation (EC 178/2002) and, as such, is exempted from Authorisation. As per REACh legislation (Title 1 – Article 2 – 8b), intermediate uses are exempted from Authorisation. Cobalt dichloride is used as intermediate to produce Cobalt caboxylates as well as vitamin B12. Ceramic and porcelain applications are also recognized as intermediate uses. When used in some formulations, like for biogas, the content of Cobalt chloride may be sufficiently low (< 0.01%) to be exempted from Authorisation. On top of that, CMR compounds are already covered by other legislations including: the Carcinogens Directive 90/394/EEC, Directive 98/24/CE, Directive 2004/37/EC and IPPC directive (Dir. 2008/1/EC) cover already risk management of carcinogens at work. Global comments on prioritization (section 3.1. – page 8): Based on information gathered, we do not think that Cobalt dichloride should be placed on Annex XIV. Reasons are the followings: • The tonnage of Cobalt dichloride that falls under Authorisation is very low. Main uses (> 95% tonnage) are exempted from Authorisation either because they are intermediate uses or fall under other specific legislations and exemptions, • For risk management, uses not exempted from Authorisation are already covered by other legislations and exposure data gathered by REACh Cobalt Consortium show that the releases at workplaces are well-controlled,

			• Assumption on interchangeability is not correct and uses are specific to Cobalt chloride only, • New data available tend to show a carcinogen threshold mechanism.
753	2011/09/12 12:34	Wieland GmbH BehalfOfAnOrganisation Company Germany	Kommentar des Zentralverbandes Oberflächentechnik e.V. (ZVO) zum Thema Vorschlag zur Priorisierung von Cobalt(II)-sulphate, Cobalt(II)-dinitrate, Cobalt(II)-dichloride, Cobalt(II)-acetate und Cobalt(II)-carbonate zur Aufnahme in den Anhang XIV der REACh Verordnung im Zuge der public consultation bis zum 14.09.2011 Einsatz der zweiwertigen Kobaltsalze in KONVERSIONSSCHICHTEN In der europäischen GALVANOTECHNIK 2 1 Präambel Die Galvano- und Oberflächentechnik ist eine wichtige Schlüssel- und Querschnitts-Technologie und damit einer der Motoren des technischen Fortschritts. Innerhalb der Galvanotechnik bilden Zink und Zinklegierungen mit nachfolgenden Konversionsschichten für den kathodischen Korrosionsschutz von Stahlbauteilen einen besonderen Schwerpunkt mit wachsender Bedeutung. Ressourcenschonung und CO2-Minderung erfordern langlebige Wirtschaftsgüter mit optimierten technologischen Eigenschaften. Zink- und Zinklegierungsbeschichtungen mit

			darauf abgeschiedenen Konversionsschichten tragen auf Grund ihrer korrosionsschützenden Eigenschaften wesentlich zur Erreichung dieser Ziele bei. Generell kann gesagt werden, dass Zink/Zinklegierungen optimalen Korrosionsschutz mit geringstem Materialeinsatz und niedrigen Kosten ermöglichen. Die Verwendung von Cobalt(II)-salzen und ihre Bedeutung für die Oberflächentechnik, den Maschinen- und Anlagenbau, den Automobilbau, Verbesserung der Haftung von aufzutragenden Lackschichten und weitere Industriezweige, wie z.B. Bauindustrie in Europa muss eine Zukunft haben, um die spezifischen Eigenschaften für die Anwendung von galvanischen Korrosionsschutzsystemen unter Verwendung von Zink- und Zinklegierungsschichten mit nachfolgenden Konversionsschichten zu erhalten. Der Kommentar richtet sich an die Europäische Chemikalienagentur (ECHA), bezüglich des Vorschlags zur Priorisierung von Co(II)-Salzen (Kobaltsulfat, -nitrat, -chlorid undacetat) zur Aufnahme in den Anhang XIV der REACh – Verordnung. Der Zentralverband Oberflächentechnik e.V. kann auf Grund der unten angeführten Argumente die Aufnahme der Kobalt-Salze in den Anhang XIV der REACh-Verordnung nicht unterstützen. Im Falle der Aufnahme dieser Stoffe in den Anhang XIV der REACh-Verordnung fordert der ZVO eine Ausnahme von der Zulassungspflicht für die Verwendung von Co(II)-Salzen (Kobaltsulfat, -nitrat, -chlorid und -acetat) zum Zwecke der Erzeugung von Konversionsschichten auf Zink- und Zinklegierungsschichten bei galvanischen Korrosionsschutzsystemen. 3 2 ALLGEMEINES Bei der Erzeugung von Konversionsschichten werden die verzinkten Bauteile in eine Behandlungslösung, die entweder dreiwertige oder sechswertige Chrom-Verbindungen enthält, eingetaucht. Die Lösungen reagieren chemisch mit der Metalloberfläche und erzeugen dünne, ca. 30 bis 1.000 Nanometer (nm) starke Umwandlungsschichten, die sogenannten Konversions- oder Passivierungsschichten. Die Langlebigkeit von Bauteilen hängt in sehr starkem Maße von der zusätzlichen Korrosionsschutzwirkung der Konversionsschicht ab. Die Konversionsschichten verzögern den Erstangriff auf die metallische Schutzschicht aus Zink bzw. Zinklegierung. Sie werden aus diesem Grunde überwiegend zur Erhöhung der Korrosionsbeständigkeit z.B. von verzinkten Bauteilen im Automobil angewendet. 2.1 Chemische Verfahren zur Erzeugung von Konversionsschichten basierend auf dreiwertigen Chromverbindungen

			Lösungen auf Basis sechswertiger Chrom-Verbindungen zur Erzeugung von korrosionsschützenden Konversionsschichten wurden schon in den 30er Jahren des 20. Jahrhunderts eingesetzt. Mit der EU-Richtlinie 2000/53/EG des Europäischen Parlaments über Altfahrzeuge sowie nachfolgend der EU-Richtlinie 2002/95/EG (Elektroschrottverordnung) wurde der Einsatz von Chromatierschichten für Pkw und Elektrobauteile verboten. Mit großen Anstrengungen von Zulieferindustrie, Beschichtungsbetrieben und Automobilindustrie wurden zunächst nur labormäßig verfügbare sogenannte Passivierungen auf Basis dreiwertiger Chromverbindungen zur Marktreife gebracht. Dabei stellte sich heraus, dass ein vergleichbarer Korrosionsschutz, wie er aus sechswertigen Chromatierungen erzielbar ist, nur mit Zusatz von Kobaltsalzen in den dreiwertigen Passivierungslösungen möglich ist. Mit Stichtag 1. Juli 2007 wurden zur Nachbehandlung von verzinkten/ zinklegierungsbeschichteten Bauteilen für bauartmäßig neu zugelassene Pkw nur noch dreiwertige Passivierungen eingesetzt. Auch für die meisten anderen Anwendungen haben sich diese Systeme am Markt etabliert. Die Lösungen zur Erzeugung von Konversionsschichten enthalten weiterhin Neutralsalze, die zum Teil auch im Lebensmittelbereich Anwendung finden. Hier sind u.a. Natriumfluorid (Zahnpasta) und Natriumnitrat zu nennen. Die eingesetzten dreiwertigen Chromverbindungen bilden mit den Neutralsalzen Komplexe und reagieren mit der Metalloberfläche des eingetauchten Bauteils. Auf diesem Wege entstehen geeignete Chrom(VI)-freie Konversionsschichten. Es zeigt sich, dass Cr(III)-basierte Passivierungen nur dann mit hohem Korrosionsschutz möglich sind, wenn den Applikationslösungen Kobaltsalze zugesetzt werden und Kobalt als Hydroxid (feuchter Zustand) bzw. Oxid (getrockneter Zustand) mit < 2 % bezogen auf die Konversionsschicht in diese eingelagert wird. Der Zusatz von Kobaltsalzen ist insbesondere erforderlich, wenn der Korrosionsschutz auch in warmen bzw. heißen Umgebungen gefordert ist (z.B. Motorraum, Bremsen, Getriebe usw. sowie Elektroteile in Gehäusen usw.). Hier sind kobalthaltige Lösungen Stand der Technik und bisher für reine Zinkschichten und Zink-Eisen-Legierungen unverzichtbar. 4 3 Mögliche Gesundheitsgefahren

			3.1 Mögliche Gesundheitsgefahren bei Einwirkung von Kobalt(II)-salzen Akute Toxizität, dermal: Werte für eine Aufnahme löslicher Kobaltsalze über die Haut liegen nicht vor, eine sensibilisierende Wirkung auf die Haut wird aber vermutet. Akute Toxizität, Inhalation Werte zur akuten Toxizität von löslichen Kobaltverbindungen durch Inhalation liegen nicht vor. Aus zweijährigen Studien an Ratten besteht jedoch der Verdacht einer chronischen Toxizität mit Schädigung der Atmungsorgane. 3.1.1 Bewertung der Messwerte Eine gesundheitliche Schädigung durch unbeabsichtigte orale Aufnahme löslicher Kobaltsalze besteht nicht. In Bereichen, wo mit Kobaltsalzen oder kobaltsalzhaltigen Gemischen gearbeitet wird, besteht ein striktes Verbot der Aufnahme von Lebensmitteln und striktes Rauchverbot. Eine unbeabsichtigte Aufnahme kann daher ausgeschlossen werden. Eine Sensibilisierung der Haut kann ebenfalls ausgeschlossen werden. Hier besteht ein ausreichender Schutz durch Anlegen von persönlicher Schutzausrüstung (Handschuhe, Schutzkleidung). Der Arbeitgeber ist verpflichtet, die Einhaltung der Verpflichtung zum Tragen persönlicher Schutzausrüstung zu kontrollieren. Die mögliche Gefährdung durch Einatmen von kobaltsalzhaltigen Aerosolen oder Partikeln wird anlagentechnisch durch geeignete Absauganlagen verhindert. Die Wirksamkeit dieser Schutzmaßnahmen wird durch regelmäßige Arbeitsplatzmessungen durch die technischen Aufsichtsdienste der Berufsgenossenschaften kontrolliert. Bei einer Messung, die 2004 in einem Betrieb durchgeführt wurde, der eine kobaltsulfathaltige Passivierung zur Passivierung von galvanisch abgeschiedenen Zinkschichten im Einsatz hat, wurde an mehreren Messstellen im Betrieb gemessen. Die Ergebnisse waren wie folgt: Messplatz Messwert Kobalt 1 < 1 mg/L gefällt werden. Derzeit gibt es für Galvaniken und diesen Parameter noch keinen Grenzwert in der AbwV bzw. im Anhang 40 zu dieser Verordnung. 5 Wirtschaftliche Bedeutung von Passivierungs- und Konversionsschichten auf Zink und Zinklegierungen 5.1 Wirtschaftliche Bedeutung der Beschichtungsbetriebe für Europa Der Absatz von reinen Passivierungslösungen (Chrom(III)-basiert) und Chromatierungen (Chrom-VI)-basiert) für die galvanische Verzinkung in Europa beträgt etwa 40 Millionen

			Euro, davon etwa 16 Millionen € in Deutschland. Dies entspricht einem Kosten- bzw. Umsatzanteil von etwa 2,5 % bei den Galvanisierbetrieben, die Zinkbeschichtungen ausführen. Daraus errechnet sich ein Fertigungsvolumen bei den Beschichtungsbetrieben von europaweit etwa: 1.600 Millionen Euro. Die europaweite Wertschöpfung von etwa 1.600 Millionen Euro, die durch Betriebe der galvanischen Verzinkung generiert wird, ist bei einem Verwendungsverbot von Kobalt(II)-salzen in Europa direkt betroffen. • Der Anteil an Kobalt-relevanten Anwendungen beträgt etwa 1.200 Mio. Euro Der Fertigungsanteil deutscher Betriebe am europäischen Markt beträgt etwa 40%. Das Fertigungsvolumen der Verzinkungsbetriebe beträgt damit für Deutschland etwa 640 Millionen Euro. Davon beträgt • der Anteil an Kobalt-relevanten Anwendungen etwa 480 Mio. Euro 5.2 Gesamtwirtschaftliche Bedeutung der Konversionsbeschichtung 5.2.1 Beispiel Automobilindustrie in Deutschland Ein Umsatzanteil von etwa 45 % der von Verzinkungsbetrieben beschichteten Bauteile geht in die Automobilindustrie, z.B. für Gehäuse, Befestigungsschienen, Bremsenteile, Rohrleitungen, Sicherheitsschellen, Getriebe- und Stossdämpferkappen, Kraftstoffpumpen, Schrauben, usw. Laut VDA (Stand 25.03.2011) wurden in 2010 in Deutschland 5.552.409 PKW gebaut sowie 353.576 Nutzfahrzeuge. Bei einem Durchschnittverkaufspreis von in Deutschland hergestellten PKW von ca. 25.000 € (Annahme VDA) ergibt sich damit ein Fertigungsumfang von 140.000 Mio. € allein in der deutschen Automobilindustrie, der zur Sicherstellung von Langlebigkeit und Funktionssicherheit zahlreiche verzinkte Bauteile erfordert (geschätzt: etwa 500 -1.000 Bauteile mit Konversionsbeschichtung auf Zink bzw. Zinklegierung pro Fahrzeug). Wenn der finanzielle Rahmen nicht berücksichtigt wird und nur die für den Automobilbau in Deutschland veredelten Artikel mit > 500 Teilen pro Pkw berechnet werden, bedeutete dieses, dass ohne die Veredlung mit galvanischen Zinkbeschichtungsprozessen mehr als 2,8 Milliarden Teile pro Jahr nicht mehr in den Galvaniken bearbeitet würden. 7 5.2.2 Beispiel Fensterbeschlaghersteller in Europa Ein Umsatzanteil von etwa 20 % der von Verzinkungsbetrieben benötigten Spezialchemikalien geht in die Herstellung von Beschlägen für den Fensterbau. Der Gesamtbedarf an chemischen Produkten für die galvanische Oberflächenveredlung in diesem Segment beträgt in Europa etwa 25 Mio. Euro pro Jahr, davon etwa 8 Mio. € für kobalthaltige Passivierungen.

			Ein sehr großer Teil der Beschichtungen wird in Deutschland, Frankreich, Slowenien und Österreich ausgeführt. Die galvanische Veredlung von Fensterbauteilen trägt mit einem Umsatzanteil von etwa 100 Mio. Euro pro Jahr zum europäischen Sozialprodukt bei und bewirkt durch einen hohen Anteil manueller Arbeit gesicherte Arbeitsplätze für etwa 3.000 Menschen. Insgesamt generieren die europäischen Hersteller von Fenster- und Türbeschlägen einen Jahresumsatz von etwa 3.000 – 4.000 Mio. € und beschäftigen etwa 16.000 – 20.000 Mitarbeiter. 6 Zusammenfassung Unverzichtbare Eigenschaft beschichteter Stahlteile, die in allen Bereichen von Industrie, Gewerbe und auch im Haushalt zum Einsatz kommen, ist der kathodische Korrosionsschutz mittels Zink und Zinklegierungsschichten, der durch Konversionsschichten verstärkt wird. Die galvanische Korrosionsschutzbeschichtung verlängert die Nutzungsdauer von Stahlteilen um die Faktoren von 20 – 100 und leistet so einen wesentlichen Anteil daran, dass eine ressourcenschonende Industrie und Wirtschaft erst möglich wird. Zur Anwendung kobaltfreier Passivierungen liegen bisher nur begrenzte Praxiserfahrungen vor. Hier ist noch eine umfangreiche Erprobung durch die Galvanisierbetriebe erforderlich; Optimierungen und Anpassungen in der Applikationstechnik müssen erarbeitet werden. In weiten Bereichen sind Sicherheitsaspekte zu berücksichtigen. Es sind derzeit keine Kobalt freien Passivierungen am Markt, die bei einer Temperaturbelastung der gefertigten Artikel einen nur annähernd gleichen Korrosionsschutz bieten. Ein Verbot des Einsatzes von Kobaltsalzen in Passivierungen würde den Korrosionsschutz der beschichteten Teile deutlich vermindern und damit negative Auswirkungen auf die Langlebigkeit und Nachhaltigkeit des industriellen Wirtschaftens in Europa haben. Verstärkter Rohstoffeinsatz und zusätzlicher Energieverbrauch wäre die Folge und würde die europäischen Klimaschutzziele und Senkungsbestrebungen zum CO2 Ausstoß belasten. Der Zentralverband Oberflächentechnik e.V. kann auf Grund der oben angeführten Argumente die Aufnahme der Kobalt-Salze in den Anhang XIV der REACh-Verordnung nicht unterstützen. Im Falle einer Aufnahme der Stoffe Kobalt(II)-dinitrat, Kobalt-dichlorid, Kobalt(II)-sulfat, Kobalt(II)-diacetat, Kobalt(II)-carbonat in den Anhang XIV der REACh-Verordnung fordert der ZVO eine Ausnahmeregelung für die Verwendung von Kobaltsalzen in Lösungen zur

			Erzeugung von Konversionsschichten auf Zink- und Zinklegierungsschichten bei galvanischen Korrosionsschutzsystemen.
714	2011/09/10 11:56 File attached	Adolf Krämer Metallveredlung GmbH & Co KG BehalfOfAnOrganisation Company Germany	We made surface technologie for automotive, windcraft, solar and so on. For high corrosion resistance in off shore or winter geographic lands we need Cobalt for the corrosion resistance. Without cobalt and Cr-VI you´ve got a ressistance from minus 90%! For us means we lost round about 70 peoples and 8 Mio € turn around.

690	2011/09/09 14:59	BehalfOfAnOrganisation Company Germany	1 Präambel Die Galvano- und Oberflächentechnik ist eine wichtige Schlüssel- und Querschnitts-Technologie und damit einer der Motoren des technischen Fortschritts. Innerhalb der Galvanotechnik bilden Zink und Zinklegierungen mit nachfolgenden Konversionsschichten für den kathodischen Korrosionsschutz von Stahlbauteilen einen besonderen Schwerpunkt mit wachsender Bedeutung. Generell kann gesagt werden, dass Zink/Zinklegierungen optimalen Korrosionsschutz mit geringstem Materialeinsatz und niedrigen Kosten ermöglichen. Wesentlicher Bestandteil des Schutzsystems ist eine Konversionsschicht, die als Nachbehandlung der metallischen Zink bzw. Zinklegierungsschicht auf deren Oberfläche erzeugt wird. 2 Allgemeines Bei diesem chemischen Verfahren werden die verzinkten Bauteile in eine Behandlungslösung, die dreiwertige Chrom-Verbindungen enthält, eingetaucht. Die Lösungen reagieren chemisch mit der Metalloberfläche und erzeugen dünne, ca. 30 bis 1.000 Nanometer (nm) starke Umwandlungsschichten, die sogenannten Konversionsschichten. Die Langlebigkeit von Bauteilen hängt in sehr starkem Maße von der zusätzlichen Korrosionsschutzwirkung der Konversionsschicht ab. Die Konversionsschichten verzögern den Erstangriff auf die metallische Schutzschicht aus Zink bzw. Zinklegierung. Sie werden aus diesem Grunde überwiegend zur Erhöhung der Korrosionsbeständigkeit z.B. von verzinkten Bauteilen im Automobil angewendet. Weitere Einsatzzwecke sind u.a. Verbesserung der Haftfestigkeit anschließend aufgebrachter Lackschichten. Chemische Verfahren zur Erzeugung von Konversionsschichten basierend auf dreiwertigen Chromverbindungen Es sind schon seit geraumer Zeit Lösungen, basierend auf dreiwertigen Chrom¬verbindungen, zur Erzeugung von Konversionsschichten im Einsatz. Diese Lösungen enthalten weiterhin Neutralsalze, die zum Teil auch im Lebensmittelbereich Anwendung finden. Hier sind u.a. Natriumfluorid (Zahnpasta) und Natriumnitrat (Pökelsalz) zu nennen. Die eingesetzten dreiwertigen Chromverbindungen bilden mit den Neutralsalzen Komplexe und reagieren mit der Metalloberfläche des eingetauchten Bauteils. Auf diesem Wege entstehen geeignete Chrom(VI)-freie Konversionsschichten. Es zeigt sich, dass Cr(III)-basierte Passivierungen nur dann mit hohem Korrosionsschutz möglich sind, wenn den Applikationslösungen Kobaltsalze zugesetzt werden und Kobalt mit < 2 % bezogen auf die Konversionsschicht in diese einlagert wird. Der Zusatz von Kabaltsalzen ist insbesondere erforderlich, wenn der Korrosionsschutz auch in warmen bzw. heißen

			Umgebungen gefordert ist (Motorraum, Bremsen, Getriebe usw. sowie Elektroteile in Gehäusen usw.). Hier sind kobalthaltige Lösungen Stand der Technik und bisher für reine Zinkschichten und Zink-Eisen-Legierungen unverzichtbar. Konversionsschichten mit einer Schichtsicke von ca. 0,2 - 1 µm werden als Dick¬schicht¬passivierung („DISP") bezeichnet. Die Anforderungen für einen beherrschten Prozess zur Erzeugung dieser Schichten sind deutlich höher als bei den bisherigen Chromatierschichten. Grundsätzlich müssen bei dreiwertigen Chromsalz-Passivierungen folgende Parameter in engen Toleranzen eingehalten werden: ☐ Konzentration der Hauptbestandteile (z.B. Cr-III und Co-II) ☐ pH-Wert ☐ Temperatur ☐ Fremdmetallkonzentration (insbesondere Eisen) ☐ Art und Umfang der Elektrolytkonvektion Nachträglich auf die DISP-Schicht aufgebrachte Versiegelungen oder TopCoats versehen die beschichtete Oberfläche mit einer zusätzlichen Diffusionsbarriere und verstärken den Korrosionsschutz dieser alternativen Systeme. Anzumerken ist, dass nachträglich aufgebrachte Versiegelungen/TopCoats das Korrosionsverhalten auch der konventionellen Systeme mit sechswertigen Chrom-Verbindungen erhöhen. 3 Mögliche Gesundheitsgefahren bei Einwirkung von Kobalt(II)-salzen Risiken bei der Anwendung von Passivierungs-Konzentraten, die Kobalt-II-Salze enthalten Die Kobaltsalze werden nicht unmittelbar als Feststoff zur Erzeugung der Kon¬ver¬sionsschicht angewendet, sondern bei Herstellung der Passivierungslösung in Lösung gebracht. Bei den angelegten pH-Werten zerfällt das Kobaltsalz in wassergelöste Co-Ionen und andere Bestandteile. Somit ist ein unmittelbarer Umgang des Personals der Anwender mit Co-Salzen bei dieser Verwendung nicht gegeben; eine sichere Verwen¬dung ist gegeben. Die Kobalthaltige Passivierungslösung wird bei Raumtemperatur und rein chemisch betrieben. Somit ist bei durch den Endanwender entsprechend geprüften Absaugungen an den Anlagen eine Belastung der Luft durch kobalthaltige Aerosole weit unterhalb bekannter gesetzlicher Grenzwerte (Vgl. unten, 3.2.1). Eine sichere Verwendung ist gegeben. Kobaltsalze werden als solche nicht in die Passivierungsschicht einge¬baut, sondern bei der Konversions¬reaktion in Hydroxidverbindungen umge¬wandelt. Auch in den Kon¬ver¬sionsschichten liegen also die Kobaltsalze nicht vor und können keine negativen Aus¬wirkungen auf Mensch oder Umwelt ausüben. Risiken bei der Herstellung von Passivierungs-Konzentraten, die Kobalt-II-Salze enthalten

			Bei der Herstellung der Konzentrate, die beim Anwender zum Betrieb einer Passivierungslösung verwendet werden, kann es kann es bei Nichtbeachtung der in der Fertigungsvorschrift vorliegenden Sicherheitshinweise bzw. Vorschriften zu einer Exposition mit Co-Salzen in Form atembarer Stäube, Aerosole oder durch Hautkontakt kommen. Akute Toxizität, dermal: Werte für eine Aufnahme löslicher Kobaltsalze über die Haut liegen nicht vor, eine sensibilisierende Wirkung auf die Haut wird aber vermutet. Akute Toxizität, Inhalation Werte zur akuten Toxizität von löslichen Kobaltverbindungen durch Inhalation liegen nicht vor. Aus zweijährigen Studien an Ratten besteht jedoch der Verdacht einer chronischen Toxizität mit Schädigung der Atmungsorgane. Bewertung der Messwerte Eine gesundheitliche Schädigung durch unbeabsichtigte orale Aufnahme löslicher Kobaltsalze besteht nicht. In Bereichen, wo mit Kobaltsalzen oder kobaltsalzhaltigen Gemischen gearbeitet wird, besteht ein striktes Verbot der Aufnahme von Lebensmitteln und striktes Rauchverbot. Eine unbeabsichtigte Aufnahme kann daher ausgeschlossen werden. Eine Sensibilisierung der Haut kann ebenfalls ausgeschlossen werden. Hier besteht ein ausreichender Schutz durch Anlegen von persönlicher Schutzausrüstung (Handschuhe, Schutzkleidung). Der Arbeitgeber ist verpflichtet, die Einhaltung der Verpflichtung zum Tragen persönlicher Schutzausrüstung zu kontrollieren. Die mögliche Gefährdung durch Einatmen von kobaltsalzhaltigen Aerosolen oder Partikeln wird anlagentechnisch durch geeignete Absauganlagen verhindert. Die Wirksamkeit dieser Schutzmaßnahmen wird durch regelmäßige Arbeitsplatzmessungen durch die technischen Aufsichtsdienste der Berufsgenossenschaften kontrolliert. Bei einer Messung, die 2004 in einem Betrieb durchgeführt wurde, der eine kobaltsulfathaltige Passivierung zur Passivierung von galvanisch abgeschiedenen Zinkschichten im Einsatz hat, wurde an mehreren Messstellen im Betrieb gemessen. Die Ergebnisse waren wie folgt:

			Messplatz Messwert Kobalt 1 < 1 mg/L gefällt werden. Derzeit gibt es für Galvaniken und diesen Parameter noch keinen Grenzwert in der AbwV bzw. im Anhang 40 zu dieser Verordnung. 5 Wirtschaftliche Bedeutung von Passivierungs- und Konversionsschichten auf Zink und Zinklegierungen 5.1 Wirtschaftliche Bedeutung der Beschichtungsbetriebe für Europa und für Deutschland Der Absatz von Passivierungen (Chrom(III)-basiert) für die galvanische Verzinkung in Europa beträgt etwa 40 Millionen Euro, davon etwa 16 Millionen € in Deutschland. Dies entspricht einem Kosten- bzw. Umsatzanteil von etwa 2,5 % bei den Galvanisierbetrieben, die Zinkbeschichtungen ausführen. Daraus errechnet sich ein Fertigungsvolumen bei den Beschichtungsbetrieben von europaweit etwa: 1.600 Millionen Euro. Der umsatzmäßige Anteil von Cr(III)- basierten Passivierungen beträgt etwa 95% des Marktsegments Konversionsschichten für Zink- und Zinklegierungsschichten. Die europaweite Wertschöpfung von etwa 1.600 Millionen Euro, die durch Betriebe der galvanischen Verzinkung generiert wird, ist bei einem Verwendungsverbot von Kobaltsalzen in Europa direkt betroffen. • Der Anteil an Kobalt-relevanten Anwendungen beträgt etwa 75% = 1.200 Mio Euro Die Restsumme von etwa 320 Mio € wird mit schon jetzt mit Kobaltfreien Schichten generiert, die aber in der Regel auf einem niedrigeren Qualitätsniveau liegen. Außerdem wird dieses Segment in denselben Anlagen beschichtet wie die übrige Ware. Ein Wegfall des überwiegenden Mengenanfalls führt daher zu drastisch steigenden Fixkosten-Umlagen. Die Restproduktion ist nicht mehr wirtschaftlich zu betreiben; die betroffenen Betriebe müssten schließen. Der Fertigungsanteil deutscher Betriebe am europäischen Markt beträgt etwa 40%. Das Fertigungsvolumen der Verzinkungsbetriebe beträgt damit für Deutschland etwa 640 Millionen Euro. Davon beträgt • der Anteil an Kobalt-relevanten Anwendungen etwa 75% = 480 Mio Euro 5.2 Gesamtwirtschaftliche Bedeutung der Konversionsbeschichtung 5.2.1 Beispiel Automobilindustrie in Deutschland Ein Umsatzanteil von etwa 45 % der von Verzinkungsbetrieben beschichteten Bauteile geht in die Automobilindustrie, z.B. für Gehäuse, Befestigungsschienen, Bremsenteile, Rohrleitungen,

			Sicherheitsschellen, Getriebe- und Stossdämpferkappen, Kraftstoffpumpen, Schrauben, usw. Laut VDA (Stand 25.03.2011) wurden in 2010 in Deutschland 5.552.409 PKW gebaut sowie 353.576 Nutzfahrzeuge. Bei einem Durchschnittverkaufspreis von in Deutschland hergestellten PKW von ca. 25.000 € (Annahme VDA) ergibt sich damit ein Fertigungsumfang von 140 Milliarden € allein in der deutschen Automobilindustrie, der zur Sicherstellung von Langlebigkeit und Funktionssicherheit zahlreiche verzinkte Bauteile erfordert (geschätzt: etwa 500 -1.000 Bauteile mit Konversionsbeschichtung auf Zink bzw. Zinklegierung pro Fahrzeug). Wenn der finanzielle Rahmen nicht berücksichtigt wird und nur die für den Automobilbau in Deutschland veredelten Artikel mit >500 Teilen pro Pkw berechnet werden, bedeutete dieses, dass ohne die Veredlung mit galvanischen Zinkbeschichtungsprozessen mehr als 2,8 Milliarden Teile pro Jahr nicht mehr in den Galvaniken bearbeitet würden. 5.2.2 Beispiel Fensterbeschlaghersteller Ein Umsatzanteil von etwa 20 % der von Verzinkungsbetrieben beschichteten Bauteile geht in die Herstellung von Beschlägen für den Fensterbau. Der Gesamtbedarf an Produkten für die galvanische Oberflächenveredlung beträgt in Europa etwa 25 Mio Euro pro Jahr, davon etwa 8 Mio € für kobalthaltige Passivierungen. Der überwiegende Teil der Beschichtungen wird in Deutschland, Frankreich und Österreich ausgeführt. Die galvanische Veredlung trägt mit einem Umsatzanteil von etwa 100 Mio Euro pro Jahr zum europäischen Sozialprodukt bei bewirkt durch einen hohen Anteil manueller Arbeit gesicherte Arbeitsplätze für etwa 3.000 Menschen. Insgesamt generieren die europäischen Hersteller von Fenster- und Türbeschlägen einen Jahresumsatz von etwa 3.000 – 4.000 Mio € und beschäftigen etwa 16.000 – 20.00 Mitarbeiter. Der hohe Schutzwert der galvanisch beschichteten Bauteile trägt maßgeblich zur Langlebigkeit der hergestellten Wirtschaftsgüter, insbesondere der Fenster, bei. Ein Verbot des Einsatzes von Kobaltsalzen in Passivierungen würde den Korrosionsschutz der beschichteten Teile deutlich vermindern und damit negative Auswirkungen auf die Langlebigkeit und Nachhaltigkeit des industriellen Wirtschaftens in Europa haben. Verstärkter Rohstoffeinsatz und zusätzlicher Energieverbrauch wäre die Folge und würde die europäischen Klimaschutzziele und Senkungsbestrebungen zum CO2 Ausstoß belasten. ZUSAMMENFASSUNG Unverzichtbare Eigenschaft beschichteter Stahlteile, die in allen Bereichen von Industrie, Gewerbe und auch im Haushalt zum Einsatz kommen, ist der kathodische Korrosionsschutz mittels Zink und Zinklegierungsschichten, der durch Konversionsschichten verstärkt wird. Es ist und bleibt ständige Aufgabe der galvanotechnischen Industrie, mit neuen und/oder

			verbesserten Beschichtungsprozessen die Funktionalität und Langlebigkeit der Produkte zu gewährleisten. Gleichzeitig werden durch Regeneration der Prozesslösungen die Standzeiten verlängert, der Energie- und Stoffeinsatz vermindert und damit die Umwelt entlastet. Kobaltfreie Dickschichtpassivierung für Zink und Zink-Eisen-Legierungen sind derzeit in der Entwicklung. Hier ist noch eine umfangreiche Erprobung durch die Galvanisierbetriebe erforderlich; Optimierungen und Anpassungen in der Applikationstechnik müssen erarbeitet werden. Darüber hinaus ist die Laborerprobung der Schichten sowie die Funktionsprüfung und Felderprobung durch die Endnutzer erforderlich, um die Schichteigenschaften im realen Praxiseinsatz zu ermitteln, zu erproben und sicherzustellen. In weiten Bereichen sind Sicherheitsaspekte zu berücksichtigen. Wir gehen davon aus, dass eine breite Feldanwendung etwa 6 – 8 Jahre Vorlaufzeit erfordert. Daher sind für eine Beschränkung der Verwendung von Kobaltsalzen lange Übergangszeiten erforderlich sowie eine generelle Ausnahme für die Verwendung zur Herstellung von Bauteilen bestehender Serien, wie sie ja auch bei der ELV-Verordnung eingeräumt wurde. Wir fordern eine Ausnahmeregelung für die Verwendung von Kobaltsalzen (Kobalt(II)-dinitrat, Kobalt-dichlorid, Kobalt(II)-sulfat, Kobalt(II)-diacetat, Kobalt(II)-carbonat) in Lösungen zur Erzeugung von Konversionsschichten im Falle einer Aufnahme dieser Stoffe in den Anhang XIV der REACh-Verordnung.
689	2011/09/09 14:56 File attached	DSM BehalfOfAnOrganisation Company Netherlands	Exemption is requested for the authorization of cobalt chloride in fermentation processes. See below for further justification

684	2011/09/09 14:20 File attached	BehalfOfAnOrganisation Company Germany	The criteria for prioritization of substances for inclusion into Annex XIV are listed in Art. 58 (3): a) PBT or vPvB properties, or b) wide dispersive use, or c) high volumes. None of these criteria applies to CoCl2. As mentioned in the background document, the volume of CoCl2 regulated by the authorization in the EU is quite low and the uses of the substance are not considered as wide dispersive. Nevertheless, we understand the need for the authorization of CoCl2 (regulatory effectiveness) to prevent the switch from other cobalt salts, which are fulfilling the criteria of Art. 58 (3), to CoCl2 for some uses. However, this should not lead to authorization for uses of CoCl2 which are not related to this regulatory effectiveness and which would not have been in focus of authorization based solely on the criteria of Art. 58 (3).
683	2011/09/09 14:05 File attached	BehalfOfAnOrganisation Company Germany	
678	2011/09/09 13:15	Hach Lange GmbH BehalfOfAnOrganisation Company Germany	Cobalt dichloride is a compound that is used in laboratory analysis for different reaction. One main use is in the color analysis. Cobalt dichloride is an accepted standard substance for color standards in the color determination methods. The reagent is used for laboratory and field analysis, and ready for use. The advantage of the reagent set is, that the risk of contamination by the noxious substances, is low for the user. It is effectively a closed system. Accordingly, the risk of coming into contact with the reagent is very low. Compared with the conventional reference procedures, the regents set needs less pollutants, and a correspondingly smaller quantity of Cobalt dichloride. Therefore, it is essential to exempt the use of Cobalt dichloride for "analysis purposes" respective “laboratory uses” from the requirement for approval, or it should be classified as an approved

640	2011/09/08 18:26	Xstrata Nikkelverk AS BehalfOfAnOrganisation Company Norway	Cobalt Dichloride We have serious concerns that the quality of the data in the supporting documents is insufficient for a valid Prioritisation of cobalt chloride. It is flawed and misleading in many key respects. This important decision must be based on facts, and not speculation, to protect the integrity of the REACH process. We respectfully request that ECHA and the Member State representatives take the necessary time to correct the quality of the data in the supporting documents in all the key areas BEFORE any Prioritisation evaluation of the five cobalt compounds is attempted, in order to avoid unnecessary economic hardship to the European cobalt chemical industry and its downstream users. Our concerns are detailed as follows: 1. Ranking process - We are concerned that there has been a significant over-estimate of the risks posed by this substance in the ranking process. This appears to have been the result of a lack of detailed understanding of these substances in all the key ranking criteria. From work commissioned by the Cobalt REACH Consortium, the following elements of the ranking process criteria should be urgently reviewed before any decision is taken to place cobalt dichloride on Annex XIV: a. Tonnage – REACH registration tonnage bands have been used to estimate tonnage produced / used. This approach guarantees an overestimate of the tonnage in question because of the use of the upper end of the range in the ranking process, and also because it will ignore production volumes destined for export, which are within the scope or REACH registration, but outside the scope of Authorisation. It is our understanding from a survey commissioned by the Cobalt REACH Consortium that the EU/EEA tonnage of this substance, adjusted for exports is only one third of the 10,000 mt p.a. upper end of the range used in the ranking. This is significant and should result in a reduction in the score for this criterion within the ranking process. Furthermore, when adjusted for the uses outside the scope of REACH this tonnage drops to only 1% to 3% of the European production after exports. The tonnage ranking as stated in the supporting documents is significantly overstated and should only be based on the tonnage within the scope of Authorisation b. Uses – Many of the uses listed in the document are not specific to cobalt dichloride, and relate to applications of other cobalt chemicals, and even cobalt metal and alloys (welding/soldering). This is misleading, especially where these uses are then stated to be related to high exposures and wide dispersive use. These statements are then inappropriately reflected in the ranking score for these criteria. Only uses of the compound in question should be considered in the Prioritisation process in line with the legislation.

			An updated Cobalt REACH Consortium survey reveals that 97% to more than 99% of the EU/EEA tonnage of cobalt dichloride is used as an intermediate in the production of other chemicals, and so exempt from Authorisation. The range arises from the less than 2% used in surface finishing where the responses indicate intermediate use. Other applications such as in industrial water systems, medicinal products, including animal feed supplements are negligible or outside of scope of Authorisation because they are covered by other legislation. These are all industrial uses. There are no identified 'professional uses' of cobalt dichloride with its attendance concerns for high exposure and wide dispersive use. It is critical for the integrity of the Prioritisation process that assumptions used for value judgments on wide dispersive use, non-intermediate status, etc. in the supporting document MUST be based on data, and not the absence of data, as seems to be the case here. c. 'Intermediate status' – From the most recent Cobalt REACH consortium survey, approximately 97% to more than 99% of uses (above) meet the latest guideline definition of intermediate status, and so are exempt from Authorisation. The precise use in the small tonnage used in surface finishing may need further investigation to confirm intermediate status in all cases. d. Wide dispersive use – the quantification of the 'wide dispersive use' has been impacted by inappropriate assumptions on the uses of cobalt dichloride, and should be adjusted for the actual applications shown above. Similarly, the concerns expressed about wide dispersive use in surface finishing are overstated here due to the extremely low level of use. We would expect this to result in a further reduction on the ranking score for this criterion. e. Interchangeability / Substitutabilty - It is our understanding that it is not possible to substitute cobalt dichloride by the other cobalt compounds for these applications. To make any process change, even if chemically possible, would involve extensive development costs and changes to the flow diagram of the entire process. The cost of such changes would not be economic, and so means that the substances would not be interchangeable in any practical sense. We understand interchangeability is a core assumption to 'grouping' the five cobalt substance, and the reason why cobalt dichloride has again been put forward for Prioritisation. We recommend that this be reconsidered in the light of this information. 2. Lack of good data - The lack of detailed information in the documentation is exemplified by the widespread use of "appear to be", "seem to be", etc. prefacing the key statements

			about tonnages, uses, and what is in, and what is out, of the scope of Authorisation. Given the very significant economic impact on companies and employees of a decision to place substances on Annex XIV, we would strongly recommend that more time is taken to improve the quality of the data used to make the Prioritisation determination for this substance, particularly at this time of economic hardship across Europe. This important decision must be based on facts and not speculation. 3. Exposure data – It is not clear that the exposure data in the supporting document is for cobalt dichloride. In one case data on exposure to "cobalt" was quoted with has no relevance for this review of cobalt dichloride. The REACH registrations for these substances contain a wealth of data about exposure scenarios, and risk characterisation. Given that Authorisation is a part of the REACH process, it seems, inappropriate to decide on the prioritisation of this substance without considering the REACH data available as the basis of the supporting document. We do not understand why this has not been done. 4. Regulatory efficiency – Given that effectively all uses of cobalt dichloride are exempt from, or outside the scope of, Authorisation, that all applications are in an industrial setting covered by existing workplace regulation, that there is therefore no consumer exposure issue, and that interchangeability is not technically or economically possible, there is no environmental or health benefit to be realized by placing cobalt carbonate on Annex XIV that we can identify. We are concerned that the credibility of the REACH and Authorisation process could be put at risk by decisions taken on incomplete and, in some cases, misleading information. Political expediency is no substitute for good, data based, decision-making particularly where people's livelihood is at risk. 5. Economic impact - The cobalt industry is small but significant in value terms for Europe. Cobalt dichloride, as are the other cobalt compounds subject to this review, is a critical raw material that is the starting point for a range of downstream industries that are crucial to many other EU initiatives, such as clean air and energy and resource efficiency, to say nothing about the economic added value for the European economy. Catalysts produced from these substances are essential to the economy of European chemical manufacturing industry, enabling reactions to take place at low temperatures, low pressures, with wider benefits for energy and resource efficiency. Desulphurized fossil fuels are just one of the resulting products that are vital to Europe's efforts to improve the health of the population by producing clean air. All engineering companies in Europe rely on cutting tools that have employed the use of one or more of these compounds at an early stage of their manufacture. Modern electronic devices such as computers, mobile phones, and hybrid cars use rechargeable batteries, the latest

			generations of which use components which used at least one of these cobalt compounds in an early stage in their manufacture. Meanwhile, Cobalt has been designated a 'critical raw material' by the European Commission. There has been no impact assessment for the effect on industry or these other cornerstone EC policies as part of this Prioritisation. These products are so fundamental to our daily lives that they will continue to be produced. These downstream products will still be imported into Europe, regardless of whether any of the five cobalt substances are placed in Annex XIV or not, as they do not contain any of the five cobalt compounds. However, Annex XIV listing will create uncertainty as to the ability of European industry to produce these products in future, and downstream users will need to develop new non-European sources to protect their supply chain, taking market share away from European manufacturers. The small tonnage of uses within scope will not justify companies applying for Authorisation. Only European Industry will be adversely impacted. We believe that these decisions should not be taken lightly as their economic impact on Europe can be profound. If necessary, more time should be taken to improve the quality of the data used to make the Prioritisation determination for these substances, particularly at this time of economic hardship across Europe. Xstrata Nickel produces high purity cobalt metal, and does not produce any of the cobalt compounds under review. However, our concern is for the cobalt market in Europe as a whole, and for the efficacy and credibility of the REACH and the Authorisation process. To the best of our knowledge, the above statements contained here are correct, and are provided in good faith.

629	2011/09/08 13:32 File attached Confidential	Firma Weiand BehalfOfAnOrganisation Company Germany	To clarify specific points of discussion and make the arguments more understandable the study attached "Report on inclusion of chromium trioxide (CrO3) in Annex XIV was carried out. For detailed arguments, evidences and citation please see the study attached. The results are summarized below. 1. Occupational safety a. The quality of the data of the dossier published for consultation is not reproducible and unclear (For details see attachment). b. No risk in application of Chromic acid or Chromium trioxide for the end-consumer or industrial client. c. Safe handling of the solutions to minimize the risk for the co-workers for dermal or respiratory tract absorption. 2. Occupational diseases According to the estimate made by the author in the annex XV report, approximately 440,000 employees work in the surface treatment industry in Europe. Of these approximately one-tenth work with chromium (VI); amounting to approx. 44,000 employees in the EU. In Germany, the metal refining industry employees approximately 45,000 people. Assuming that in Germany approx. one-tenth also work with chromium (VI), this means 4,500 employees for Germany. Above we have shown, that the cases of lung cancer involving workers working with chromium in plating plants averaged 1.4 cases per year during the last 10 years. For the 4,500 employees working with chromium (VI) this means the risk of contracting lung cancer is 0.00031 or 3.1 out of 10,000. By comparison the risk for the entire German population, of dying of lung cancer was 5.2 out of 10,000 in 2009. (For details see attachment). 3. Alternative processes a. There are a variety of familiar alternatives for functional chromium plating using hexavalent electrolytes. These alternatives do not include one universal substitute process, capable of replacing hard chromium plating on a one to one basis (For details see attachment). b. If the functional hard chromium plating is to be replaced, it will be necessary to use processes, which do not have the same technical or mechanical properties and, in terms of health, do not offer any improvement in employee protection, because these introduce familiar as well as less well researched safety hazards. Other alternatives, on the other hand, are considered relatively harmless in terms of hazardous substances, however, from a technical vantage point, can only be considered as a substitute for niche applications. 4. Overall implications: a. The application of hard chromium plating in shows a high socio-economic benefits due to the functional properties in a wide range of products (For details see attachment). 5. Summarized comments: • It is difficult to see why the current justification and proportionality of the relevant

			provisions to handle Chromic acid and Chromium trioxid should need further approvals. National and European law already requires aspects of regulatory monitoring and control as well as to the increasing internationalization of requirements. Any additional configurable prioritization and approval of changes will only reproduce the current national requirements. • Furthermore, a separation in chromic acid and chromium trioxide is senseless from the chemical point of view. • Many decades provides a clear understanding of the safety and efficacy and show that on no account an endangering of the end-consumer is realistic. 6. Consequence: Taking these experiences into account an inclusion of the hard chromium plating from Chromic acid in Annex XIV of the REACh regulation should be avoided. 1. Occupational safety a. The quality of the data of the dossier published for consultation is not reproducible and unclear (For details see attachment). b. No risk in application of Chromic acid or Chromium trioxide for the end-consumer or industrial client. c. Safe handling of the solutions to minimize the risk for the co-workers for dermal or respiratory tract absorption. 2. Occupational diseases According to the estimate made by the author in the annex XV report, approximately 440,000 employees work in the surface treatment industry in Europe. Of these approximately one-tenth work with chromium (VI); amounting to approx. 44,000 employees in the EU. In Germany, the metal refining industry employees approximately 45,000 people. Assuming that in Germany approx. one-tenth also work with chromium (VI), this means 4,500 employees for Germany. Above we have shown, that the cases of lung cancer involving workers working with chromium in plating plants averaged 1.4 cases per year during the last 10 years. For the
617	2011/09/08 10:19	CEPE BehalfOfAnOrganisation Industry or trade association Belgium	There is no use of Cobalt dichloride neither in paints nor in inks. Cobalt dichloride is used in the synthesis of drying agent for paints and printing inks. This is an intermediate use, which should be exempted from Authorisation. Because cobalt dichloride is mainly used as an intermediate to manufacture other chemicals its inclusion into the Annex XIV of REACH should not be prioritized.

612	2011/09/08 09:41 File attached	Schaeffler Technologies GmbH & Co. KG BehalfOfAnOrganisation Company Germany	see attached statement
593	2011/09/07 11:46	 BehalfOfAnOrganisation Company Slovakia	

588	2011/09/06 15:24 File attached Confidential	BehalfOfAnOrganisation Company Belgium	request for exemption of the authorisation requirement for the use of CoCl2 as a trace element in fermentation processes.
572	2011/09/01 13:25	Umicore NV/SA BehalfOfAnOrganisation Company Belgium	We would like to emphasize the following: • The actual EU tonnage of cobalt dichloride (overall total for the industry) is less than a third of the range maxima of 10.000 tpa as reported in the consultation document. In addition approx. 97-99% is used as intermediate and therefore exempted from authorization, suggesting the volume of cobalt dichloride in scope of authorization is negligible. • A REACH registration dossier and chemical safety report were submitted for cobalt dichloride by the end of 2010. This includes an exposure scenario for each identified and supported use, each resulting in a risk characterization ratio below 1. Therefore it can be safely assumed that all uses of cobalt dichloride in the EU are well controlled and the criteria of 'wide dispersive use' are not met. • Cobalt dichloride is already controlled by existing legislation to protect human health and environment. As an example risk management is already imposed by the carcinogens at work directive (2004/37/EC) and the IPPC directive (2008/1/EC). Furthermore all CMR compounds are restricted for supply to the general public, excluding consumer exposure (REACH, Annex XVII, entry 28-30). • There is a misconception regarding interchangeability. It should be noted that cobalt dichloride cannot be substituted by other cobalt salts in most of its applications. In nearly all cases it is neither technically and/or economically feasible to implement such a change. Based on the above Umicore is of the opinion that including cobalt dichloride in Annex XIV seems disproportionate. In addition to the above we support the comments made by the Cobalt REACH Consortium (CoRC).

571	2011/09/01 11:15 File attached	BehalfOfAnOrganisation Company Belgium	
563	2011/08/30 21:04 File attached	Cobalt REACH Consortium Ltd (CoRC) BehalfOfAnOrganisation Industry or trade association United Kingdom	INTRODUCTION The following joint response comments are provided by the Secretariat of the Cobalt REACH Consortium Ltd (CoRC) on behalf of the Consortium member companies. The Cobalt REACH Consortium was founded in November 2007 by the Board of Directors of the Cobalt Development Institute (CDI) to implement REACH on behalf of the cobalt industry. There are currently 50 Regular members of the Consortium. The Consortium member companies and their affiliates constitute over 80 industry companies involved in the manufacturing and/or import of cobalt substances in Europe as well as other international jurisdictions. There are also some downstream users represented amongst the Consortium membership. The Cobalt Consortium has previously provided joint response comments to: the first consultation conducted for cobalt dichloride in 2008 (SVHC proposal and Annex XV dossier by France); the second consultation conducted for cobalt dichloride in 2009 (Prioritisation proposal and Background Report by ECHA); and the third consultation conducted for cobalt dichloride in 2011 (new Annex XV dossier by ECHA).

			VOLUME(S) IMPORTS/EXPORTS (Section 2.1.1, pages 1 and 2) Data on tonnages of cobalt dichloride collated by the CoRC from EU manufacturers and downstream users in 2011 indicate that the maximum of the tonnage range reported in the consultation document (1,000 - 10,000tpa) derived from REACH registration data is a significant overestimate of the volume of cobalt dichloride produced in the EU. The total EU tonnage of cobalt dichloride, corrected for export, is less than a third of the range maxima of 10,000 tpa. In addition, this section does not detail what proportion of the total EU tonnage is expected to fall within the scope of Authorisation. Data collated by the CoRC suggests that < 1 % of the annual cobalt dichloride tonnage is expected to fall within the scope of Authorisation, although this could potentially be higher (i.e. ~2%) depending on the interpretation of the intermediate status for some uses. MANUFACTURE AND RELEASE FROM MANUFACTURE (Section 2.2.2.1, page 2) In addition to the manufacturing process described in the consultation document other cobalt salts can be used in the production of cobalt dichloride. The first set of exposure data reported are not specific to cobalt dichloride and, in addition, are from Russia. Data from outside the EU/EEA should not used as a surrogate for sites using or manufacturing cobalt dichloride in the EU. The exposure data reported are unlikely to represent the current cobalt dichloride emission levels from current industrial processes in the EU. The second set of exposure data is not recent (from 1994) and is also not specific to cobalt dichloride. A summary of exposure scenarios developed by the CoRC for the REACH registration of cobalt dichloride is attached to this consultation response for information. Based on these comprehensive assessments, which incorporate both the inherent exposure potential of a use in combination with recommended risk management measures, all registered uses of cobalt dichloride can demonstrate effective control of exposure and can be considered safe uses. As the REACH dossier contains exposure scenarios for all identified and supported uses of cobalt dichloride in the EU these data should be used in preference to historic or literature exposure data that may be relevant to uses that are not supported under REACH or not consistent with the current exposure scenarios.

			Cobalt dichloride is predominantly supplied to downstream users as an aqueous solution(approximately 80% of EU tonnage). In such physical form, under good industrial handling practices, the inhalation exposure is negligible. The solid form is mainly used in surface treatment applications. Cobalt dichloride in solid form is a damp crystal, so therefore the inhalation risk is minimal. USES AND RELEASES FROM USES (Section 2.2.2.2, pages 2 to 6) The section on uses and releases from uses in the background document is not specific to the identified uses of cobalt dichloride under REACH and does not clearly identify or distinguish between those uses of cobalt dichloride that are outside of the scope of Authorisation and those uses that are likely to be subject to Authorisation. The CoRC would welcome any revision to section 2.2.2.2 that allows the identified uses of cobalt dichloride that are within scope of Authorisation to be clearly distinguished from the identified uses that are clearly outside of the scope of Authorisation (e.g. general exempted uses). In Addition, it would be beneficial if uses within each section were listed in order from the largest to the smallest tonnage. Data collated by the CoRC from EU manufacturers and downstream users in 2011 indicate that the identified uses of cobalt dichloride and their respective proportions are as follows: Use as an intermediate in the production of other chemicals (e.g. carboxylates, resinates, etc.). 97% of EU Tonnage (use as an intermediate is exempt from Authorisation, REACH Title 1, Chapter 1, Article 2, 8b). Use in surface treatment. Very low, <<< Use in surface treatment. Very low, <2% of the EU tonnage. Use as an oxygen scavenger/corrosion prevention in industrial water systems. Very low, <1%of the EU tonnage. Use in medicinal products (e.g. synthesis of vitamin B12), and use as trace element in industrial cell culture. Very low <1 % of the EU tonnage. Use as an animal feed, and use as component of fertiliser formulation. Very low, <<1% of the EU tonnage. Use of cobalt dichloride in the manufacture of inorganic pigments for ceramic products (including glazes) & porcelain manufacture (decolourizing application) was identified by

			EU Manufactures and Downstream Users, but no tonnage information is available. We would consider this use to be small. Use of cobalt dichloride in humidity indicator applications was identified in the ECHA background document. This use has recently been confirmed to the CoRC by an EU Downstream User, although the tonnage involved is extremely low, <<<1% EU tonnage. The majority of the cobalt dichloride (97 - 99%) produced or imported into the EU is used as an intermediate in the manufacture of other chemicals. This includes the use in the production of other chemicals and surface treatments. All use of cobalt dichloride during pigment manufacture and the majority of company responses on surface treatments to date indicate that this use is as an intermediate as described in the REACH regulation and the registration dossier. Cobalt dichloride is not used as a catalyst in manufacture of pharmaceuticals, although it is used as an intermediate in their manufacture. Use of a substance as an isolated intermediate is exempt from Authorisation under REACH, and therefore should not be included within the scope of Authorisation. Use as an animal feed supplement was identified, although the consultation document also indicates the tonnage is very low. This use is exempt from Authorisation under REACH, and therefore should not be included within the scope of Authorisation. Use of cobalt dichloride as a corrosion inhibitor is identified in the REACH dossier as well as in the ECHA consultation document, but tonnages are very low. It may be that some cobalt dichloride is used as a substance in this application rather than as an intermediate. As noted, an updated summary of exposure scenarios developed by the CoRC for the REACH registration of cobalt dichloride is attached to this consultation response. The ECHA background document states that all the identified uses are industrial, but that it is assumed that the produced mixtures will also be handled by professionals. We consider that this assumption by ECHA, as it is currently reported, is unjustified and this contention should be supported by reference to compelling data in the background document. All uses of cobalt dichloride identified in its REACH registration dossier are for industrial uses only and either relate to intermediate use or an end use. Therefore, the exposure of professional users (in particular via inhalation, which is the critical exposure route) from the uses identified in the REACH dossier is not expected. The data reported for consumer exposure to cobalt salts (hobby paints, cosmetics and dinnerware) are not specific to cobalt dichloride (but relate to cobalt metal) and should be revised or omitted from the background document as they are not directly relevant to cobalt dichloride. In addition, use of substances in food contact materials are outside of the scope of

			Authorisation. The CoRC do not consider there to be any professional or consumer uses of cobalt dichloride. GEOGRAPHICAL DISTRIBUTION AND CONCLUSIONS IN TERMS OF (ORGANISATION AND COMMUNICATION IN) SUPPLY CHAINS (Section 2.2.2.3, pages 6 and 7) This section could be made clearer by identifying the uses that are within scope of Authorisation, if any. As the complexity of the supply chain is one of the factors that feeds into the prioritisation score this section should relate solely to the geographical distribution and supply chain of the uses that are potential candidates for Authorisation. CoRC would welcome that the structure of section 2.2.2.3 be changed to only include uses in scope of Authorisation. As such, the estimates of the number of downstream sites and users would be considerably lower than currently reported in the consultation document. Only use as a surface treatment (in some cases) and potentially use as a corrosion inhibitor would be within scope of Authorisation. We agree that the number of manufactures and importers is relatively small but argue that for the very limited number of uses that may be in scope of Authorisation that the number of Downstream Users would also be low. AVAILABILITY OF INFORMATION ON ALTERNATIVES (Section 2.3, page 7) It is not reasonable to assume that other cobalt salts could generally replace cobalt dichloride for its applications. Although common uses may have been identified for the purpose of generic exposure scenarios this does not mean that the exact use is the same, nor that it is technically or economically feasible to implement this change. Industrial processes are usually designed for a specific salt and it would not be a simple matter of replacing one salt with another. Even if the salt could be substituted chemically there would be a number of practical considerations to take into account. No interchangeability would be possible without considerable development work and costs to switch from cobalt dichloride to another salt. It is not necessary to comment on alternatives for the uses that are outside the scope of Authorisation (e.g. intermediate uses, exemptions). A small number of uses (i.e. surface treatment in some cases, and potentially as a corrosion inhibitor) may be within scope of Authorisation. No information is available on potential alternatives for either of these uses. EXISTING SPECIFIC COMMUNITY LEGISLATION RELEVANT FOR POSSIBLE EXEMPTION The use of cobalt dichloride as an animal food supplement would fall within the scope of feed safety regulation (EC 178/2002). The Carcinogens Directive (90/394/EEC), Directive 98/24/EC (risks related to chemical agents at work), Directive 2004/37/EC (exposure to carcinogens and mutagens) all apply to cobalt

			dichloride. Risk management is already required by this existing legislation. The Integrated Pollution Prevention and Control (IPPC) directive (Dir. 2008/1/EC) also applies to the majority of industrial uses of cobalt dichloride. PRIORITISATION (Section 3.1, page 8) The data in the registration dossier and updates to be submitted by the end of this year indicate that cobalt dichloride is not genotoxic in vivo, suggesting a threshold mode of action. We acknowledge that ECHA have taken account of the new data indicating that cobalt dichloride has a threshold concentration for carcinogenicity in the scoring for inherent properties. Based on the volumes reported in the background document, up to 99% of the use of cobalt dichloride in the EU is likely to be outside the scope of Authorisation. Recent data collated by the CoRC from EU Manufacturers and Downstream Users support the contention that only a low volume of cobalt dichloride is potentially within the scope of Authorisation. Therefore, we would propose that the volume score of 3 is revised downwards to 1 for the purposes of substance prioritisation. The only uses of cobalt dichloride identified in the REACH dossier are industrial. There are no professional and consumer uses of cobalt dichloride. Where cobalt dichloride is used at industrial sites it would be controlled under existing community legislation (e.g. the carcinogens at work directive (Dir. 2004/37/EC and the IPPC directive (Dir. 2008/1/EC). Exposure assessment under REACH registration has demonstrated Risk Characterisation Ratios below 1. The appropriate release score for cobalt dichloride would therefore be 1 (non-diffuse/controlled), rather than 3. The number of sites within scope of Authorisation is unknown, but expected to be relatively low so a score of 2 for site, as currently proposed in the background document, is supported. The overall prioritization score would therefore be: 0-1 (properties) + 1 (volume) + 2 (WDU) = 3-4 ECHA states the cobalt dichloride is of moderate priority and should be placed on Annex XIV as there are other cobalt compounds that could replace it. We argue that nearly all uses of cobalt dichloride are exempt and we disagree with the statement that other cobalt compounds could replace cobalt dichloride in its uses. We therefore do not believe that cobalt dichloride should be prioritized for inclusion on Annex XIV. REFERENCES (Section 4, page 9) Please note that the internet links provided under '4. References' are no longer working. Without being able to retrieve the information on which the Annex XV is based it is not possible for independent third parties to make a proper assessment and comments.

562	2011/08/30 16:30 File attached	Bio.be BehalfOfAnOrganisation Industry or trade association Belgium	
556	2011/08/25 12:34 File attached Confidential	Manufacture Française des Pneumatiques Michelin BehalfOfAnOrganisation Company France	Comments on : Draft background document for cobalt dichloride – 15 June 2011 In paragraph 2.2.2.2, part " Manufacture of other chemicals" " Cobalt dichloride seems to be used in the synthesis of tyre adhesion additive" We confirm that Cobalt dichloride is used as intermediate in the synthesis of tyre adhesion additives. In paragraph 2.2.2.2, part "Volumes per sector or use" "Around 10% for use of the synthesis of organic cobalt compound". We think that this percentage is realistic, by taking in account the estimated cobalt dichloride volume dedicated to tyre adhesion additive synthesis. In paragraph 2.2.2.2, part " Release from uses" "Cobalt dichloride is reported to be largely produced and used as a solution (99%)" We confirm that the use of cobalt dichloride for synthesis of tyre adhesion additives. is in water solution. Process did not generate aerosol, therefore there is no inhalation risk. Moreover during the chemical reaction involving Cobalt dichloride for synthesis of tyre adhesion additive 100% of cobalt dichloride disappears. Cobalt dichloride use for tyre adhesion additive is not dispersive. In paragraph 2.3, part. " Avalability of information on alternatives" Use of Cobalt dichloride as intermediate for synthesis of the two Michelin's tyre adhesion additives is the result of a long, complicated and drastic selection. For more details please see attachment.

546	2011/08/24 13:52	WWF European Policy Office BehalfOfAnOrganisation International NGO Belgium	WWF supports the prioritisation for inclusion in Annex XIV based on the fact that the substance could replace other cobalt (II) compounds.
479	2011/07/21 16:56	BehalfOfAnOrganisation Company Germany	

II - TRANSITIONAL ARRANGEMENTS. COMMENTS ON THE PROPOSED DATES:

#	Date (attachment provided)	Submitted by (name, Organisation/ MSCA)	Comment
1862	2011/09/15 12:24	REISSER-Schraubentechnik GmbH, Member of Würth Group BehalfOfAnOrganisation Company Germany	Wir widersprechen den vorgeschlagenen Zeitpunkten Englisch: We object the proposed dates.
1849	2011/09/15 00:09	European Diagnostics Manufacturers Association (EDMA) BehalfOfAnOrganisation Industry or trade association Belgium	No comment

1804	2011/09/14 20:46 File attached	ACEA - European Automobile Manufacturers Association BehalfOfAnOrganisation Industry or trade association Belgium	See attachment.
1784	2011/09/14 19:46	BehalfOfAnOrganisation Company Canada	The on-going uncertainty surrounding cobalt dichloride's impending authorization and consideration for electrodeposition as an intermediary use suitable for exemption has led to hindrance of early adopters. Currently there is limited data on the exposure risk when employing cobalt dichloride in aqueous solutions to produce pure cobalt metal by electrodeposition. Application dates and sunset dates should be determined on the basis of scheduling and timeline for field data acquisition and formal reporting.
1710	2011/09/14 17:46	BehalfOfAnOrganisation Industry or trade association United Kingdom	Please refer to the following document for technical details: 1) final Joint Response Comments (JRC) on the five cobalt salts that were submitted into the present ECHA stakeholder consultation on Tuesday 30 August 2011 2) Technical Annex to the Cobalt Reach Consortium's (CoRC) Joint Response to ECHA's Consultation on the Proposed Inclusion of cobalt diacetate in Annex XIV of REACH (submitted September 2011)

1854	2011/09/14 17:46 File attached	BehalfOfAnOrganisation Industry or trade association United Kingdom	Please refer to the following document for technical details: 1) final Joint Response Comments (JRC) on the five cobalt salts that were submitted into the present ECHA stakeholder consultation on Tuesday 30 August 2011 2) Technical Annex to the Cobalt Reach Consortium's (CoRC) Joint Response to ECHA's Consultation on the Proposed Inclusion of cobalt diacetate in Annex XIV of REACH (submitted September 2011)
1467	2011/09/14 11:28 File attached Confidential	BehalfOfAnOrganisation Company Sweden	-
1225	2011/09/14 00:54 File attached	CETS aisbl BehalfOfAnOrganisation Industry or trade association Germany	Should cobalt(II)-sulphate, cobalt(II)-nitrate, cobalt(II)-chloride, cobalt(II)-acetate and cobalt(II)-carbonate be prioritised for Annex XIV inclusion, it is imperative that the application and sunset dates be extended. As a non-threshold carcinogen, an application for authorization for the Cobalt salts will need to include a socio-economic analysis. Given the complexity of the supply chains of articles subject to surface treatment, additional time is needed. In that respect, the following dates should apply: application date (date for submitting applications for authorisation): July 2015 ; and sunset date: January 2017. A failure to grant additional time would have the practical effect of transforming the Annex XIV listing into an outright ban.

1182	2011/09/13 19:39 File attached	DALIC BehalfOfAnOrganisation Company France	We need an extension of the deadlines (48 months instead of 24 months as mentioned in the recommendation). Please see the enclosed letter.
1121	2011/09/13 18:09	Atotech Deutschland GmbH BehalfOfAnOrganisation Company Germany	If the cobalt salts are included in Annex XIV in the near future the proposed timeframe is too short for several reasons: • Article 55 says that it is the aim to "ensure the good functioning of the internal market" by progressively replacing SVHC by "suitable alternative substances or technologies where these are economically and technically viable". The regulation specifically uses the word "progressively" implying that the users must be granted an appropriate timeframe for the transition from one technology/substance to another, where possible. • The authorization process is new and has never been used before. This implies that the applicants as well as all associated supporting entities need time to adapt to this new requirement in order to be able to provide information and documentation in accordance with regulation's requirements. 18 months are not an appropriate timeframe considering that o small and medium users need external support for this process, o users may wish to organize in groups for cost sharing, o users have to select appropriate supporters, o documents need to be finalized including reviews etc., o the capacity of supporting entities is limited. • Five cobalt salts are present in ECHA's draft recommendation for inclusion on Annex XIV. As these salts and chromium trioxide are used for surface treatment, this sector of industry does not have the capacity of handling two authorization processes at a time. Surface treatment shops usually are small to medium size companies that do not have the capacity to handle regulatory requirements of this extent as dedicated personnel is required. • Transitions to new technologies or new requirements involve a considerable complex process, investments and time. A complex process involving the whole supply-chain is triggered. Solely qualification processes for example for electronics applications take several years from the developed technology until application at the final product. Clearly these processes are very complex as the final product's properties may be safety-relevant.

970	2011/09/13 14:34	Sweden MemberState Sweden	We agree with the proposed dates
931	2011/09/13 13:15	Dr. Kubitz GmbH BehalfOfAnOrganisation Company Germany	Too early.

883	2011/09/13 11:35 File attached Confidential	BehalfOfAnOrganisation Company Germany	As there is no technically acceptable alternative available that meets all the requirements of humidity indicator card, research and development will need to be done to determine if it is even possible to find an alternative substance. If it is even possible to find an acceptable alternative, the production method is unknown, capital expenditure cost and ramp out time is unknown. A Use Specific Exemption would be applied for and it would be reasonable to expect a decision on exemption prior to expending tremendous time and money to attempt (with no guarantee of success) to develop an alternative. With that said, 60 months should be the minimum sunset date.
817	2011/09/12 17:07	BehalfOfAnOrganisation Company United Kingdom	Taking into account the time needed for eventual changes in industrial process or substitution at industrial scale, we think it is reasonable to propose a sunset date 36 months after the application date.

588	2011/09/06 15:24 File attached Confidential	 BehalfOfAnOrganisation Company Belgium	No comments
563	2011/08/30 21:04 File attached	Cobalt REACH Consortium Ltd (CoRC) BehalfOfAnOrganisation Industry or trade association United Kingdom	24 months to submit an application would seem reasonable and longer than some of the other substances listed. However the sunset date of 18 months seems very short considering the time it would take to implement a change in process or substitution at an industrial scale for the uses in scope of Authorisation. A minimum period of 36 months would be more reasonable.
562	2011/08/30 16:30 File attached	Bio.be BehalfOfAnOrganisation Industry or trade association Belgium	

556	2011/08/25 12:34 File attached Confidential	Manufacture Française des Pneumatiques Michelin BehalfOfAnOrganisation Company France	no comment
546	2011/08/24 13:52	WWF European Policy Office BehalfOfAnOrganisation International NGO Belgium	The timelines foreseen for transitional arrangements are too long. They should be shortened to an application date of 12 months (sun set date 30 months) after the date of inclusion in Annex XIV.

III - COMMENTS ON USES THAT SHOULD BE EXEMPTED FROM AUTHORISATION, INCLUDING REASONS FOR THAT:

#	Date (Attachment provided)	Submitted by (name, Organisation/ MSCA)	Comment
1862	2011/09/15 12:24	REISSER-Schraubentechnik GmbH, Member of Würth Group BehalfOfAnOrganisation Company Germany	Einsatzgebiete: o chemische Industrie o Galvanikindustrie o Korrosionsschutz o Oberflächenbehandlung o Oberflächenschutz o Passivierung von Zink und Zinklegierungsbeschichtungen Verfügbarkeit von Alternativen o Sind noch in der Entwicklung, jedoch können die Eigenschaften von cobalt-haltigen Passivierungen bis heute nicht erreicht werden. o oder extrem teuer o Preis-Leistungsverhältnis stimmt nicht Sichere Handhabung in den Betrieben: o Die sichere Handhabung der Substanzen in galvanischen Betrieben sind durch entsprechende Schutzausrüstungen gewährleistet, Englisch: Applications: o chemicals industry o electroplating industry o protechtion against corrosion o surface treatment o surface protection o protection of zinc and zinc alloy plating Availiability of Alternatives o alternatives are still in development, but until now the altenatives do not reach the performance an process capability of cobalt containing zinc protection solutions . o the alternatives are much more expansive

			o there is a big gap in cost/performance ratio Assured handling in shop floor: o the assured handling at electroplating shops is achieved by providing and using personal protective equipment
1849	2011/09/15 00:09	European Diagnostics Manufacturers Association (EDMA) BehalfOfAnOrganisation Industry or trade association Belgium	A number of exemptions apply for the use of cobalt dichloride as a cofactor for the enzyme terminal transferase and as a trace element in fermentation. These exemptions are: • Use for Scientific Research and Development (< 1 t.p.a): The use meets the definition set out in Article 3(23) of REACH. It is exempt from the requirements of authorization under REACH. • Specific exemption for use in in vitro diagnostic assays and in medical devices: The use for the substance in medical device is regulated by Council Directive 90/385/EEC and Directive 98/79/EC for in vitro diagnostic medical devices. According to Article 60(2) the Commission should not consider the risks to human health, when granting authorisations, with the use of substances covered by the above directives. Therefore an application for authorisation is not needed. It should however be explicitly noted that this exemption needs to cover not only the presence of Cobalt Dichloride in the final IVD product but also the use of Cobalt Dichloride in the manufacture of in vitro diagnostic devices, otherwise the effect would be to drive manufacturing of such devices outside of the EU as the final product would be exempt, but not the manufacturing process. • Specific exemptions for uses already covered under the following workplace legislations: o carcinogens and mutagens at work directive 2004/37/EC; o risk related to chemical agents at work directive 98/24/EC; o integrated pollution prevention and control 2008/1/EC An exemption is also requested for the use of sodium dichromate as “sensitizer” for the production of screen cylinders in EU that support home diabetes test strip manufacturing (IVD

			medical devices) is requested. We will continue to work with the current supplier to identify feasible alternatives, however, at this point, no alternate materials or technology have been identified.
1804	2011/09/14 20:46 File attached	ACEA - European Automobile Manufacturers Association BehalfOfAnOrganisation Industry or trade association Belgium	See attachment.

1789	2011/09/14 19:53 File attached Confidential	BehalfOfAnOrganisation Company Germany	Die mbw-Gruppe kann auf Grund der oben angeführten Argumente die Aufnahme der Kobalt-Salze in den Anhang XIV der REACh-Verordnung nicht unterstützen. Im Falle einer Aufnahme der Stoffe Kobalt(II)-dinitrat, Kobalt-dichlorid, Kobalt(II)-sulfat, Kobalt(II)-diacetat, Kobalt(II)-carbonat in den Anhang XIV der REACh-Verordnung fordert die mbw-Gruppe eine Ausnahmeregelung für die Verwendung von Kobaltsalzen in Lösungen zur Erzeugung von Konversionsschichten auf Zink- und Zinklegierungsschichten bei galvanischen Korrosionsschutzsystemen.
1785	2011/09/14 19:48	European federation of Pharmaceutical Industries & Associations BehalfOfAnOrganisation International organisation Belgium	Use as an analytical reagent: Cobalt dichloride is used as an analytical reagent. It is an important substance for scientific R&D and is used as an analytical reagent, e.g. as calibration standard for ICP and AAS in laboratories as well as ISO-certificated laboratories, and in routine analyses in the quality control of pharmaceutical raw materials and finished products. An example is its use in the European Pharmacopoeia test 2.2.2 on Degree of Coloration of Liquids. It is used to prepare the Red Primary Color solution which is then mixed with other primary color solutions to produce five color comparison reference solutions used to evaluate the color of a liquid. There are approximately 850 references to the use of general test 2.2.2 in the European Pharmacopoeia. No alternative methods are available to the use of cobalt dichloride as a standard. ISO-certified labs and quality control labs are obliged by governmental organizations (e.g. FDA) to perform the calibration of instruments on a regular basis and therefore, have the need to use cobalt chloride formulations. It is actually not possible to replace CoCl2 in these applications which are described in DIN, EN, ISO and ASTM. No substitution is possible for these usages. These formulations are supplied only in packages specifically for use in laboratories, e.g. sealed cells, ampoules or bottles. These are used in the laboratory by appropriately, technically-trained industrial and professional users. The volumes needed for one analysis/calibration are extremely small. The exemption is required e.g. to secure the supply of medicinal products as well as the calibration of analytical instruments and to secure routine analytics done in laboratories. Significance of the European Pharmacopoeia The European Pharmacopoeia (Ph. Eur.) is prepared under the authority of the Council of

			Europe. The governments of Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, 'the former Yugoslav Republic of Macedonia', Turkey and the United Kingdom currently recognize the European Pharmacopoeia. Articles (drug substance or excipients) covered by a Ph. Eur. monograph must meet the requirements of the monograph, including any applicable general tests referenced by the monograph in order to be legally marketed or used in a marketed medicinal product. Use as a biochemical substrate: Industrial and laboratory operations commonly use fermentation processes to produce valuable substances, such as pharmaceutical substances (i.e. proteins, peptides, etc.) and industrial enzymes. Many substances are manufactured in large, industrial scale fermenters (i.e. vessels which grow microorganisms under controlled conditions to produce a valuable compound of interest). In industrial scale fermentation processes, the production of organisms typically is conducted in a complex fermentation medium. A complex medium is understood to be a medium comprising a complex nitrogen and/or carbon source, such as soybean meal, cotton seed meal, corn steep liquor, yeast extract, casein hydrolysate, molasses, and mixtures of trace vitamins, minerals and elements. One of the primary advantages of utilizing a complex media in fermentation is that offers a wide array of raw materials to be available to allow a complete or nearly complete nutrient source for specific microorganisms. However, some substances in a media may not be readily available for organisms. Within many industries, highly refined, high-producing microbial strains have been developed for industrial processes in complex media to maintain their good performance in media. Catalytic elements are commonly needed to utilize specific enzymes or enzyme cofactors in these processes. These elements can include substances such as magnesium, iron, copper, calcium, manganese, zinc, cobalt, molybdenum, selenium, barium. Cobalt dichloride is a commonly and safely utilized source of cobalt. In some cases, the use of cobalt dichloride can be specifically used to direct the forms of an active molecule or discourage the production of other substances generated in a fermentative process. Many pharmaceutical products derived from fermentation processes are used for human and

			animal health. No monetization of benefits has been provided in this analysis. We suggest that all steps for the use of Co salts as an essential trace element in fermentation processes and in the production of dehydrated culture media should be exempted from authorisation. EFPIA Recommendation In the light of the above considerations, EFPIA Recommends that cobalt chloride and other salts of cobalt be exempt from authorisation for any use in the research, development, manufacture or anlytical control of medicinal products and their ingredients and for any corresponding uses in relation to medical devices. This should cover the steps starting from manufacture of the substance (already exempted), filling into packages, preparation of formulations described in standards (DIN, EN, ISO and ASTM), Pharmacopoeias (Reag. Ph. Eur. and ACS) till the use as calibration standard for ICP and AAS. The use of these formulations for scientific R&D (< 1t/a) is already exempted. The criteria for prioritization of substances for inclusion into Annex XIV are listed in Art. 58 (3): a) PBT or vPvB properties, or b) wide dispersive use, or c) high volumes. None of these criteria applies to CoCl2. As mentioned in the background document, the volume of CoCl2 regulated by the authorization in the EU is quite low and the uses of the substance are not considered as wide dispersive. Nevertheless, we understand the need for the authorization of CoCl2 (regulatory effectiveness) to prevent the switch from other cobalt salts, which are fulfilling the criteria of Art. 58 (3), to CoCl2 for some uses. However, this should not lead to authorization for uses of CoCl2 which are not related to this regulatory effectiveness and which would not have been in focus of authorization based solely on the criteria of Art. 58 (3).

1784	2011/09/14 19:46	BehalfOfAnOrganisation Company Canada	Integran strongly believes that the electrodeposition process should be exempted due to the minimal risk of exposure to workers and the general public in the EU . In the case of the Nanovate process, cobalt dichloride is present only in the liquid electrolyte. The primary route of exposure is dust/fume inhalation. The use of cobalt salts in aqueous solutions limits exposure to workers since the process is very efficient which minimizes emissions. Data generated at a military facility in US (FRCSE at Jacksonville, FL) demonstrates that the emission of cobalt in flue analysis from Nanovate process tanks is well below the PEL as specified by OSHA.
1733	2011/09/14 18:22	Metallveredelung Joos GmbH & Co.KG Augsburg BehalfOfAnOrganisation Company Germany	http://www.zvo.org/uploads/media/2011-09-08_Antrag_auf_Ausnahmeregelung_englisch.DOC
1710	2011/09/14 17:46	BehalfOfAnOrganisation Industry or trade association United Kingdom	Please refer to the following document for technical details: 1) final Joint Response Comments (JRC) on the five cobalt salts that were submitted into the present ECHA stakeholder consultation on Tuesday 30 August 2011 2) Technical Annex to the Cobalt Reach Consortium's (CoRC) Joint Response to ECHA's Consultation on the Proposed Inclusion of cobalt diacetate in Annex XIV of REACH (submitted September 2011)

1854	2011/09/14 17:46 File attached	BehalfOfAnOrganisation Industry or trade association United Kingdom	Please refer to the following document for technical details: 1) final Joint Response Comments (JRC) on the five cobalt salts that were submitted into the present ECHA stakeholder consultation on Tuesday 30 August 2011 2) Technical Annex to the Cobalt Reach Consortium's (CoRC) Joint Response to ECHA's Consultation on the Proposed Inclusion of cobalt diacetate in Annex XIV of REACH (submitted September 2011)
1696	2011/09/14 17:30 File attached Confidential	BehalfOfAnOrganisation Company Belgium	A substance in mixtures. Use descriptors: Sector of use SU 3 Industrial uses: Uses of substances as such or in mixtures at industrial sites Product Category PC37 Water treatment chemicals Process Category PROC2 Use in closed, continuous process with occasional controlled exposure Environmental Release Category ERC7 Industrial use of substances in closed systems Description of the use: GE W&PT uses trace amounts of CoCl2, specifically less than 0.01% by weight as CoCl2 in a mixture, in its sodium bisulphite and sodium sulphite based product formulations as an oxidation catalyst to increase the rate of oxygen removal in boiler feed water applications. The trace levels of cobalt chloride used in the sulphite preparations significantly and measurably increase the rate and extent of removal of dissolved oxygen by the sodium sulphite, which in turn significantly reduces the risk of steam boiler failures due to dissolved oxygen corrosion The concentration of cobalt chloride present in GEW&PT mixtures is below the lowest concentration limit specified (

1607	2011/09/14 15:11 File attached	Dr. Hesse & Cie. KG BehalfOfAnOrganisation Company Germany	siehe unsere Erläuterungen unter "General comments"
1541	2011/09/14 14:13	BehalfOfAnOrganisation Company United Kingdom	Allowing cobalt dichloride to be used in the zinc cobalt plating process would reduce the demand for the more hazardous cadmium plating, for which it is an alternative. Zinc cobalt is more corrosion resistant than pure zinc, so plated items last longer. This process results in no exposure of cobalt dichloride to the end user of the article, and exposure to electroplaters can easily be maintained well below the UK Exposure Limit.
1534	2011/09/14 13:56	BehalfOfAnOrganisation Company United Kingdom	Industrial fermentation of microorganisms requires a complex medium of nutrients including trace elements. Cobalt is one among many elements with an essential micronutrient function and required for cell growth. In some cases cobalt forms part of the active molecule and can therefore not be substituted with other elements. Industrial fermentation and in particular pharmaceutical fermentation are controlled processes. The production and the use of cobalt dichloride as trace element for fermentation are controlled through workplace regulation and national laws and standards. It is mainly used as a liquid solution in closed systems but the solutions are prepared from solid cobalt dichloride. There is minimal human exposure during the use. If products are manufactured by Genetically Modified Microorganisms (GMMs), which is often the case in the biotech industry, the products are manufactured complying with Directive 2009/41/EC which lays down common measures for the contained use of GMMs. The products are purified extensively, leaving no remaining cobalt in the final products. Surplus material from the production is collected and sent away for destruction. Cobalt dichloride used as trace element in fermentation industries does not meet any of the three criteria for prioritizing for the Candidate if for Authorisation (Art. 58 (3)). There is no wide-dispersive use, it is a salt and hence does not meet the criteria for PBT and vPvB, the volume is low in general, typically less than 1 kg per production site per year. We have not

			conducted thorough socio economics analyses in this respond. However a ban of cobalt dichloride in the fermentation industry will have effects on the yield and efficiency of the industry. Some fermentation products simply cannot be produced without cobalt dichloride. Thereby a ban leads to serious consequences for the downstream users. We therefore suggest exempting the use of Co salts as essential trace elements in fermentation processes from authorization.
1533	2011/09/14 13:48	BehalfOfAnOrganisation Company Denmark	Industrial fermentation of microorganisms requires a complex medium of nutrients including trace elements. Cobalt is one among many elements with an essential micronutrient function and required in the cell growth. In some cases cobalt forms part of the active molecule and can therefore not be substituted with other elements. Industrial fermentation and in particular pharmaceutical fermentation are controlled processes. The production and the use of cobalt dichloride as trace element for fermentation are controlled through workplace regulation and national laws and standards. The liquid solution is used in closed systems where the solution is transferred to the fermentors. There is minimal human exposure during the use. If products are manufactured by Genetically Modified Microorganisms (GMMs), which is often the case in the biotech industry, the products are manufactured complying with Directive 2009/41/EC which lays down common measures for the contained use of GMMs. The cobalt salt is incorporated in the biomass during fermentation. After fermentation products are separated from the production strains and purified. Due to the efficient separation processes, no production strains are present in the final products. Surplus material from the production is collected and sent away for destruction. When microorganisms are applied for industrial uses e.g. waste water treatment, cobalt incorporated in the microorganisms is on the same level as organisms found in environments. Cobalt dichloride used as trace element in fermentation industries does meet criteria in Article 58 (3) for PBT or vPvB or high volume. Cobalt dichloride is a salt and hence does not meet the criteria for PBT and vPvB, the volume is low in general, typically less than 1 kg per production site per year. Fermentation products containing cobalt in the protein structure may be used in

			various applications; however the concentration in the microorganisms will not exceed the background level of similar We have not conducted thorough socio economics analyses in this respond. However a ban of cobalt dichloride in the fermentation industry will have effects on the yield and efficiency of the industry. Some fermentation products can simply not be produced without cobalt dichloride. Thereby a ban leads to serious consequences for the downstream users. We therefore suggest exempting the use of Co salts as essential trace elements in fermentation process from authorisation.
1516	2011/09/14 12:47	BehalfOfAnOrganisation Company Sweden	Industrial fermentation of microorganisms requires a complex medium of nutrients including trace elements. Cobalt is one among many elements with an essential micronutrient function and required for cell growth. In some cases cobalt forms part of the active molecule and can therefore not be substituted with other elements. Industrial fermentation and in particular pharmaceutical fermentation are controlled processes. The production and the use of cobalt dichloride as trace element for fermentation are controlled through workplace regulation and national laws and standards. Cobalt dichloride is mainly used as a liquid solution in closed systems but the solutions are prepared from solid cobalt dichloride. There is minimal human exposure during the use. The products are purified extensively; leaving no remaining cobalt in the final products. Surplus material from the production is collected and sent away for destruction. If products are manufactured by Genetically Modified Microorganisms (GMMs), which is often the case in the biotech industry, the products are manufactured complying with Directive 2009/41/EC which lays down common measures for the contained use of GMMs. Cobalt dichloride used as trace element in fermentation industries does not meet any of the three criteria for prioritizing for the Candidate if for Authorization (Art. 58 (3)). There is no wide-dispersive use, it is a salt and hence does not meet the criteria for PBT and vPvB, the volume is low in general, typically less than 1 kg per production site per year. We have not conducted thorough socio economics analyses in this respond. However a ban of cobalt dichloride in the fermentation industry will have effects on the yield and efficiency of the industry. Some fermentation products simply cannot be produced without cobalt dichloride. Thereby a ban leads to serious consequences for the downstream users. We therefore suggest exempting the use of Co salts as essential trace elements in fermentation processes from authorization.

1467	2011/09/14 11:28 File attached Confidential	BehalfOfAnOrganisation Company Sweden	Cobalt dichloride is used in gram quantities as an essential trace element in culture in life science and pharmaceutical industry. The use of cobalt salts in cultured media has a long history with several documented studies showing the importance of cobalt dichloride to cellular growth and proliferation also in bacteria. Cobalt dichloride is added in culture media to supply cultures with the cobalt(II) ion, which is an essential trace element for most living cells. The cobalt ion cannot be interchanged with any other substance. The cobalt ion is a cofactor most commonly associated with the vitamin B12 complex, but also works as cofactor of several other proteins as exemplified by Michihiko Kobayashi and Sakayu Shimizu ("Cobalt proteins", Michihiko Kobayashi and Sakayu Shimizu Eur. J. Biochem. 261, 1±9 (1999)). In production, some bacterial media are defined (on molecular level), meaning that pure chemicals are added individually to create the desired conditions. In such a case, no sources of cobalt would be available unless a cobalt substance in some form is added.. Cobalt dichloride is added to culture media to support bacterial and cell growth and production of proteins or other organic biomolecules. These molecules are used as part of products which in turn are used as tools in the pharmaceutical industry to make vaccines or other medicinal products. The molecules may also be used in research and development. Research areas include mutations, cell transformation and other advanced techniques. The amount that we use for culture media and production of proteins or other organic biomolecules is < 1 kg/year. This estimated amount includes downstream use by subcontractors Use descriptors for use of Cobalt dichloride hexahydrate (incl subcontractors Uses) SU codes • SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites • SU9 Manufacture of fine chemicals - C20.5.9 Manufacture of other chemical products n.e.c. • SU24 Scientific research and development PROC codes • PROC15 Use as laboratory reagent • Sub-contractor Use PROC 1 Use in closed process, no likelihood of exposure PROC 2 Use in closed, continuous process with occasional controlled exposure PROC 3 Use in closed batch process (synthesis or formulation) ERC codes • ERC4 Industrial use of processing aids in processes and products, not becoming part of

			articles.
1453	2011/09/14 10:52 File attached	A.M.P.E.R.E. DEUTSCHLAND GmbH BehalfOfAnOrganisation Company Germany	In the event that these substances are included in Appendix XIV of the REACH regulations we demand that there has to be an exception to the rules to allow the use of Cobalt(II)-Salts for the purpose of anti-corrosion, decorative, bright and functional Cobalt-Alloy-Plating.
1225	2011/09/14 00:54 File attached	CETS aisbl BehalfOfAnOrganisation Industry or trade association Germany	• Use of Cobalt(II) dichloride for plating National and European law already require aspects of regulatory monitoring and control as well as to the increasing internationalization of requirements. Any additional configurable prioritization and approval of changes will only reproduce the current national requirements. Taking these experiences into account an inclusion of cobalt(II)-sulphate, cobalt(II)-nitrate, cobalt(II)-chloride, cobalt(II)-acetate and cobalt(II)-carbonate for plating in Annex XIV of the REACh regulation is not necessary. Relating to Article 58(2) of the REACH regulation it is hereby proposed to exempt the use of cobalt(II)-sulphate, cobalt(II)-nitrate, cobalt(II)-chloride, cobalt(II)-acetate and cobalt(II)-carbonate from the authorisation requirements. In accordance with the provisions of REACh the risk of the application is properly controlled by European and national laws. In the EU, the human health and environmental aspects for safe handling of Cobalt(II) salts are regulated the following laws and regulations: • EG 1907/2006 (REACH-regulation)

			• EG/1272/2008 (GHS-regulation) • 2002/95/EG (ROHS) • 2002/96/EG (WEEE) • 196/82/EG (Seveso-II-RL) • 2010/75/EU (IVU) • 2000/60/EG (WRR) • 98/249/EG
1208	2011/09/13 21:24 File attached	BehalfOfAnOrganisation Company United Kingdom	Relating to Article 58(2) of the REACH regulation it is hereby proposed to exempt the use of Chromium trioxide (-solutions) from the authorisation requirements. Article 58(2): Uses or categories of uses may be exempted from the authorisation requirement provided that, on the basis of the existing specific Community legislation imposing minimum requirements relating to the protection of human health or the environment for the use of the substance, the risk is properly controlled. In the establishment of such exemptions, account shall be taken, in particular, of the proportionality of risk to human health and the environment related to the nature of the substance, …. In the EU, human health and environmental aspects for safe handling of Chromium trioxide (-solutions) are regulated by the following laws and regulations: • EC 1907/2006 (REACH-regulation) • EC/1272/2008 (GHS-regulation) • 2002/95/EC (ROHS) • 2002/96/EC (WEEE) • 196/82/EC (Seveso-II-RL) • 2010/75/EU (IVU) • 2000/60/EC (WRR) • 98/249/EC For all these reasons we file for an exemption of the application of solutions containing cobalt(II)-sulphate, cobalt(II)-nitrate, cobalt(II)-chloride, cobalt(II)-acetate and cobalt(II)-carbonate in galvanic surface treatment technologies.

1197	2011/09/13 20:19 File attached	European Biogas Association BehalfOfAnOrganisation International NGO Czech Republic	Biogas production and utilization is an integral part of many environmental technologies like sewage sludge treatment, bio-waste treatment and also an important part of agricultural manure treatment in sustainable agriculture. Furthermore biogas utilization is an important pillar of the European bioenergy policy. The near term goals of biogas development are defined in National Renewable Energy Action Plans in all the 27 Member States. To be able to develop and to sustain the biogas industry in Europe, an exemption from authorization is asked for the use of cobalt(II) chloride in biogas production processes, as the use of this salt is adequately controlled within the sector. Cobalt(II) chloride is an indispensable element of methanogenic bacteria metabolism, as it is the source of the trace element Cobalt. Cobalt is needed as a catalytic element for chemical reactions catalyzed by various Cobalt-based enzymes.
1182	2011/09/13 19:39 File attached	DALIC BehalfOfAnOrganisation Company France	In surface treatment, closed processes like DALISTICK or processes saving CO2 and energy like DALISTICK and BRUSH PLATING, should be exempted, as well as activities covered by the strict regulations concerning health & safety and environment in reason of the existing surveillance of companies by the states. This should apply in particular to companies, which have already provided great efforts to fulfill the requirements of these regulations. For the others, it should be preferable to organize or reinforce regulations and the use of the protection measures rather than to favour their closing for economical reasons. Processes, like DALISTICK and BRUSH PLATING should be also exempted because they are sold (with solutions) and used in the whole world for local repair or local treatment on new parts (e.g. in railways, energy or print industry). Please see the enclosed letter.
1180	2011/09/13 19:35 File attached	Verband der Automobilindustrie VDA BehalfOfAnOrganisation Industry or trade association Germany	Relating to Article 58(2) of the REACH regulation it is hereby proposed to exempt the use of Cobalt (II) Salts from the authorisation requirements. In accordance with the provisions of REACh the risk of the application is properly controlled by the German laws.

1165	2011/09/13 19:07 File attached	BehalfOfAnOrganisation Company United Kingdom	Relating to Article 58(2) of the REACH regulation it is hereby proposed to exempt the use of Chromium trioxide (-solutions) from the authorisation requirements. Article 58(2): Uses or categories of uses may be exempted from the authorisation requirement provided that, on the basis of the existing specific Community legislation imposing minimum requirements relating to the protection of human health or the environment for the use of the substance, the risk is properly controlled. In the establishment of such exemptions, account shall be taken, in particular, of the proportionality of risk to human health and the environment related to the nature of the substance, …. In the EU, human health and environmental aspects for safe handling of Chromium trioxide (-solutions) are regulated by the following laws and regulations: • EC 1907/2006 (REACH-regulation) • EC/1272/2008 (GHS-regulation) • 2002/95/EC (ROHS) • 2002/96/EC (WEEE) • 196/82/EC (Seveso-II-RL) • 2010/75/EU (IVU) • 2000/60/EC (WRR) • 98/249/EC For all these reasons we file for an exemption of the application of solutions containing cobalt(II)-sulphate, cobalt(II)-nitrate, cobalt(II)-chloride, cobalt(II)-acetate and cobalt(II)-carbonate in galvanic surface treatment technologies.

1158	2011/09/13 18:54 File attached	BehalfOfAnOrganisation Company United Kingdom	Relating to Article 58(2) of the REACH regulation it is hereby proposed to exempt the use of Chromium trioxide (-solutions) from the authorisation requirements. Article 58(2): Uses or categories of uses may be exempted from the authorisation requirement provided that, on the basis of the existing specific Community legislation imposing minimum requirements relating to the protection of human health or the environment for the use of the substance, the risk is properly controlled. In the establishment of such exemptions, account shall be taken, in particular, of the proportionality of risk to human health and the environment related to the nature of the substance, …. In the EU, human health and environmental aspects for safe handling of Chromium trioxide (-solutions) are regulated by the following laws and regulations: • EC 1907/2006 (REACH-regulation) • EC/1272/2008 (GHS-regulation) • 2002/95/EC (ROHS) • 2002/96/EC (WEEE) • 196/82/EC (Seveso-II-RL) • 2010/75/EU (IVU) • 2000/60/EC (WRR) • 98/249/EC For all these reasons we file for an exemption of the application of solutions containing cobalt(II)-sulphate, cobalt(II)-nitrate, cobalt(II)-chloride, cobalt(II)-acetate and cobalt(II)-carbonate in galvanic surface treatment technologies.
1149	2011/09/13 18:39	BehalfOfAnOrganisation Company Sweden	Cobalt dichloride is used in gram quantities as an essential trace element for culturing media in life science and pharmaceutical industry. The use of cobalt salts in cultured media has a long history with several documented studies showing the importance of cobalt dichloride to cellular growth and proliferation also in bacteria. Cobalt dichloride is added in cultured media to supply cultures with the cobalt(II) ion, which is an essential trace element for most living cells. The ion cannot be interchanged with any other substance. The ion is a cofactor most commonly associated with the vitamin B12 complex, but also works as cofactor of several other proteins as exemplified by Michihiko Kobayashi and Sakayu Shimizu 1999. In production, some bacterial media are defined (on molecular level), meaning that pure chemicals are added individually to create the desired conditions. In such a case, no sources of cobalt would be available unless a cobalt substance in some form is added. Cobalt dichloride is added to culturing media to support bacterial growth and production of

			proteins or other organic biomolecules. These molecules are used as part of products which in turn are used as tools in the pharmaceutical industry to make vaccines or other medicinal products. The molecules may also be used in research and development. Research areas include mutations, cell transformation and other advanced techniques. The amount that we use for the production of proteins is < 50 g/year. Approximately 3 times per year in quantities of 10-15 gram each time, we will make a cobalt dichloride solution from powered cobalt dichloride. This powdered cobalt dichloride is measured in a classified clean room under a hood. When handling the cobalt dichloride, personnel are required to wear personal protective equipment such as nitrile gloves. The solution mixture is prepared in volumes of about 1-2 litres which then are dispensed in 500 ml portions. The liquid solution is used in closed systems where the solution is transferred to the fermenters through plastic tubing. Following the fermentation process, the remaining cobalt dichloride, if any, is separated from the end products in a separation and purification process. Use descriptors for use of Cobalt dichloride hexahydrate • SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites • SU9 Manufacture of fine chemicals - C20.5.9 Manufacture of other chemical products n.e.c. Proc 1 Use in closed process, no likelihood of exposure Proc 2 Use in closed, continuous process with occasional controlled exposure Proc 3 Use in closed batch process (synthesis or formulation)
1143	2011/09/13 18:36 File attached	BehalfOfAnOrganisation Company United Kingdom	Relating to Article 58(2) of the REACH regulation it is hereby proposed to exempt the use of Chromium trioxide (-solutions) from the authorisation requirements. Article 58(2): Uses or categories of uses may be exempted from the authorisation requirement provided that, on the basis of the existing specific Community legislation imposing minimum requirements relating to the protection of human health or the environment for the use of the substance, the risk is properly controlled. In the establishment of such exemptions, account shall be taken, in particular, of the proportionality of risk to human health and the environment related to the nature of the substance, …. In the EU, human health and environmental aspects for safe handling of Chromium trioxide (-solutions) are regulated by the following laws and regulations: • EC 1907/2006 (REACH-regulation) • EC/1272/2008 (GHS-regulation) • 2002/95/EC (ROHS) • 2002/96/EC (WEEE)

			• 196/82/EC (Seveso-II-RL) • 2010/75/EU (IVU) • 2000/60/EC (WRR) • 98/249/EC For all these reasons we file for an exemption of the application of solutions containing cobalt(II)-sulphate, cobalt(II)-nitrate, cobalt(II)-chloride, cobalt(II)-acetate and cobalt(II)-carbonate in galvanic surface treatment technologies.
1134	2011/09/13 18:25 File attached	BehalfOfAnOrganisation Company United Kingdom	Relating to Article 58(2) of the REACH regulation it is hereby proposed to exempt the use of Chromium trioxide (-solutions) from the authorisation requirements. Article 58(2): Uses or categories of uses may be exempted from the authorisation requirement provided that, on the basis of the existing specific Community legislation imposing minimum requirements relating to the protection of human health or the environment for the use of the substance, the risk is properly controlled. In the establishment of such exemptions, account shall be taken, in particular, of the proportionality of risk to human health and the environment related to the nature of the substance, …. In the EU, human health and environmental aspects for safe handling of Chromium trioxide (-solutions) are regulated by the following laws and regulations: • EC 1907/2006 (REACH-regulation) • EC/1272/2008 (GHS-regulation) • 2002/95/EC (ROHS) • 2002/96/EC (WEEE) • 196/82/EC (Seveso-II-RL) • 2010/75/EU (IVU) • 2000/60/EC (WRR) • 98/249/EC For all these reasons we file for an exemption of the application of solutions containing cobalt(II)-sulphate, cobalt(II)-nitrate, cobalt(II)-chloride, cobalt(II)-acetate and cobalt(II)-carbonate in galvanic surface treatment technologies.

1127	2011/09/13 18:15 File attached	Central Association of Surface Treatment Professionals Germany (ZVO) BehalfOfAnOrganisation Industry or trade association Germany	In the event that these substances are included in Appendix XIV of the REACH regulations we demand that there has to be an exception to the rules to allow the use of Cobalt(II)-Salts for the purpose of anti-corrosion, decorative and bright Cobalt-Alloy-Plating. Attachment (additional non-confidential information) ZVO Kommentierung: Application of divalent cobalt salts in Cobalt and Cobalt-Alloy-Layers in the European electroplating Industry
1121	2011/09/13 18:09	Atotech Deutschland GmbH BehalfOfAnOrganisation Company Germany	Uses where cobalt salts can not be replaced Corrosion Protection Conversion Layers Despite extensive research and development activities there is currently no alternative to cobalt salts in corrosion protection conversion layers if very high corrosion protection is required. Particularly the following industries depend on these coating systems and would be heavily affected if the high level of corrosion protection would be jeopardized by inclusion of cobalt salts in Annex XIV: ☐ Automotive industry ☐ Aerospace industry ☐ Defense ☐ Other parts of industry where corrosion protection is vital for safety Hard Gold Coating Gold-cobalt layers are used in manufacturing of electronic equipment (contactors) and jewellery. The addition of cobalt is essential for the required characteristics of the layer: hardness, abrasion resistance and microstructure. Alternatives: ☐ Gold-nickel: significantly different characteristics of the surface. Particularly reduced hardness, solderability and long-term stability limit applicability in electronics. ☐ Gold-iron: No industrial application and very limited experiences about long-term stability ☐ Cyanide-Gold: Partially applicable for decorative applications (jewellery). Advantage from the health, safety and environmental point of view is doubtful.

			Tin-Cobalt Coating Tin-cobalt layers are used for decorative plating (substitute for decorative chrome plating). For barrel plating (screws and other small parts) chrome plating is not applicable and no alternative for tin-cobalt plating is available. Safe use The background documents for cobalt sulphate and cobalt dichloride state that "Releases at workplaces in industrial settings seem to be controlled in most cases but some processes, involving handling of powder forms of the substance have a potentially significant exposure potential for industrial workers." No handling of powder form of cobalt salts take place in industrial surface treatment. No other indications of significant exposure of workers or emissions to the environment are provided in the background documents or in the Annex XV reports. Existing specific Community regulations and national exposure limit ensure that risks are properly controlled. PPORD The product and process oriented research and development (PPORD) should be clearly exempted from the authorization process. Please note the following reasons: a. Alternative technology development has to use cobalt salts in order to develop further. Restrictions would hinder PPORD from fulfilling his role in the REACH framework. b. Following Article 55, the aim of the authorization is to control the risks from SVHC. In order reduce the risks from SVHC the need for PPORD is evident, which may result in optimized processes reducing the risks for human health and the environment. c. Personnel's exposure in PPORD is significantly reduced against production processes as the time of exposure is reduced, the throughput is lower by decimal powers and usually equipment with latest safety measures is used.

1095	2011/09/13 17:51 File attached	BehalfOfAnOrganisation Company United Kingdom	Relating to Article 58(2) of the REACH regulation it is hereby proposed to exempt the use of Chromium trioxide (-solutions) from the authorisation requirements. Article 58(2): Uses or categories of uses may be exempted from the authorisation requirement provided that, on the basis of the existing specific Community legislation imposing minimum requirements relating to the protection of human health or the environment for the use of the substance, the risk is properly controlled. In the establishment of such exemptions, account shall be taken, in particular, of the proportionality of risk to human health and the environment related to the nature of the substance, …. In the EU, human health and environmental aspects for safe handling of Chromium trioxide (-solutions) are regulated by the following laws and regulations: • EC 1907/2006 (REACH-regulation) • EC/1272/2008 (GHS-regulation) • 2002/95/EC (ROHS) • 2002/96/EC (WEEE) • 196/82/EC (Seveso-II-RL) • 2010/75/EU (IVU) • 2000/60/EC (WRR) • 98/249/EC For all these reasons we file for an exemption of the application of solutions containing cobalt(II)-sulphate, cobalt(II)-nitrate, cobalt(II)-chloride, cobalt(II)-acetate and cobalt(II)-carbonate in galvanic surface treatment technologies.
1085	2011/09/13 17:35 File attached	BehalfOfAnOrganisation Company Switzerland	A number of exemptions apply for the use of cobalt dichloride as a cofactor for the enzyme terminal transferase and as a trace element in fermentation. These exemptions are: • Use for Scientific Research and Development (< 1 t.p.a): The use meets the definition set out in Article 3(23) of REACH. It is exempt from the requirements of authorization under REACH. • Specific exemption for use in in vitro diagnostic assays and in medical devices: The use for the substance in medical device is regulated by Council Directive 90/385/EEC and Directive 98/79/EC for in vitro diagnostic medical devices. According to Article 60(2) the Commission should not consider the risks to human health, when granting authorisations, with the use of substances covered by the above directives. Therefore an application for authorisation is not needed. • Specific exemptions for uses already covered under the following workplace legislations:

			o carcinogens and mutagens at work directive 2004/37/EC; o risk related to chemical agents at work directive 98/24/EC; o integrated pollution prevention and control 2008/1/EC
1045	2011/09/13 16:44	Agoria BehalfOfAnOrganisation Industry or trade association Belgium	Agoria propose to integrate clearly the fact that most of the uses of the different cobalt salts are used as intermediate and thus exempted from the authorization procedure.
1022	2011/09/13 16:10	BehalfOfAnOrganisation Company Germany	The Cobalt cation is a well known essential micro element in biological systems, e.g. it serves as central ion in Vitamine B12 (Cobalamin). In addition several metaloenzymes require Co++ as a co-factor. Consequently several biotechnological processes are dependent from a Co++ supplementation. Without traces of Cobalt ions bacterial growth and /or biocatalytic conversions are not possible or at least inhibited. In terms of REACH Co++ (e.g. CoCl2 X 6H2O) has to be classified as an intermediate because it serves as a reactant in the formation of Cobalt-containing vitamins or biocatalysts. Such processes usually are performed under strict containment, e.g. fermentation under sterile conditions. As worst case a none wide dispersive use has to be taken into account, because products or wastes of Co++ dependent biotechnological processes might be contaminated with trace Co++ amounts. Processes and control technologies applied to minimize such emissions including residual emissions from rigorous containment and emissions from purification, cleaning, maintenance

			after accidents and where waste is generated are in place. Special procedures before cleaning and/or entering the system are mandatory. Handling of the substance is restricted to trained and authorized personnel. Procedures are well documented and supervised. Cobalt containing waste e.g. remaining sludge is disposed according to national laws and regulation taking into account current valid threshold values.
980	2011/09/13 14:49 File attached	BehalfOfAnOrganisation Industry or trade association Germany	electroplating and surface treatment
931	2011/09/13 13:15	Dr. Kubitz GmbH BehalfOfAnOrganisation Company Germany	It is not possible to find or develop suitable substitutes in the available time.

883	2011/09/13 11:35 File attached Confidential	BehalfOfAnOrganisation Company Germany	Humidity Indication Applications: According to further information from the public consultation (RCOM, 2009), the use of cobalt dichloride as humidity indicator is widespread, with the regeneration of silica gel siccatives (by heating the silica gel up to 150 or 180 oC and transferring and re-filling the regenerated granulate into the application system) to be accompanied by severe exposition to dust particles containing cobalt dichloride, and often not followed by appropriate risk management measures.(pg. 5) There is a misunderstanding of the use of Cobalt Dichloride as a humidity indicator. Humidity Indicating Silica Gel and Humidity Indicator Cards are used interchangeably in the Draft Background Document: Blue Indicating Silica Gel – as it is known in the industry – is silica gel coated with Cobalt Dichloride. Since 1994 when IRAC Volume 52 was released, industry has been moving away from silica gel that was coated with cobalt dichloride due the dusting that can be inhaled. The Blue indicating gel has, at times, been replaced by alternatives (France, 2008), but it has also been replaced with non-indicating silica gel that is used in conjunction with a humidity indicator card (HIC). Blue indicating gel containing cobalt dichloride (or any indicating gel of any color) is technically poor performing product. The reason silica gel is used is to keep products dry. The role of a humidity indicator is to show the relative humidity (RH) level of an environment. For blue indicating gel to turn pink means the silica gel adsorption properties are completely spent and the RH level is very high and the product that the indicating silica gel is supposed to protect is now exposed to high RH levels. Since 1994 the use of non-indicating silica gel in conjunction with an HIC has increased since the card will react accurately and quickly to the show the environmental RH, not the condition of the silica gel. Therefore when the card begins to change, the customer knows it is time to change the silica gel in order to keep the product protected Humidity Indicator Card: is a paper based product on which a cobalt dichloride solution is impregnated. The cobalt dichloride is in a form that cannot be inhaled and therefore is not a hazard to the user. Availability of information on alternatives: According to the Cobalt REACH Consortium, the vast majority of the applications do actually not allow for mutual substitution of the cobalt salts for technical and/or economical reasons;… (further information is currently collected for the current applications; personal communication with EUROMETAUX, 2011).

			And According to industry, the only alternative substance identified so far allowing humidity indicator cards to fulfill all quality and performance requirements specified in military and industrial standards is cobalt bromide, which probably has a similar hazard profile to cobalt dichloride. While Cobalt Bromide is the only alternative that meets military color change requirements of blue at 5% RH below the indication level and pink at 5% above the indication level, it that does not mean that it is technically interchangeable. • Other than Cobalt Bromide for a limited RH range, all other cobalt salts will not work for the purposes of serving as an humidity indicator card • Cobalt bromide has the limitation that it cannot be formulated to indicate humidity >60% RH. There are industry requirements for a color change humidity indicator to change color up to 95% RH. Cobalt bromide based indicators fall short of this requirement by 35% RH. Therefore the statement in the draft background document is incorrect. Cobalt Bromide will not fulfill all military and industrial performance standards. • Cost of Cobalt Bromide is 10 times higher than cobalt dichloride, but this is not the most urgent factor; technical limitations are a greater concern. Consultation with industry (ENTEC, 2008) regarding this use showed that alternatives to cobalt dichloride (e.g. other metal salts, such as iron or copper salts, as proposed by France in their Annex XV dossier) did not allow the same range of humidity indication and therefore these substances were not considered to be technically suitable. • US Military specification requires a complete color change from a dry indication to a wet indication over a range of 10% RH. Example is the indicator is blue at 35% RH, lavender at 40% RH, and Pink at 45% RH. This means that a humidity indicator card must make a complete color change from Blue to Pink over relative humidity exposure change of 10%. There is a clear "lavender" color at the mid-point between blue and pink that shows the actual RH level that the humidity indicator card is being exposed to. • Copper/iron salts as proposed by France cannot, will not and do not meet this color change requirement. All tests that have been performed on every non-Cobalt humidity indicator card do not give a clear color change indication. In the case of a copper card, the RH range that it takes for the card to change from Brown (dry) to Azure or green (wet) is over a 25% relative humidity range. There is not "purple" or any way for an operator to actually read the card to

			determine the real humidity level. Other Considerations: • Prioritization of the Candidate List o Volume used for humidity indicator cards was low before inclusion in 2008 on the SVHC list. EU imports & manufacturing were substantially less than <50%, so tonnage is now <<< <<<<1 tonne. o Wide dispersivness of Uses: ☐ In the verbal-argumentative approach, for the uses within scope of authorization, the word "potential" or "potentially" is used 6 times. This verbal argument has a great deal of conjecture, not fact. ☐ On the Scoring System approach, releases are given a 3 which is the most negative as it relates to diffuse/uncontrolled/significant. This is again conjecture. o Priority ranking score in 2009 was 6 (Low); and is now 9-10 (Moderate). ☐ Volume usage has decreased/ not increased since 2008 – volume score should be a 1, not a 3 ☐ Wide dispersivness should be a 1 because release is non-diffuse/controlled ☐ Score for prioritization should be low. • 99% of cobalt dichloride produced is used as an intermediate. This leaves 1% subject to authorization. (ECHA, June 2009). Care needs to taken to get correct volume quantities on the uses subject to authorization. Volume should be given a 1 for low (<10 t/yr) not assume "relatively low" due to the fact that where technically feasible, alternatives have been used, so the volume has decreased since 2008-2009. • Industries that could use alternatives have already changed to Cobalt Dichloride Free alternatives (for industry that requires 60% or less RH indication) as a result of the initial nomination to SVHC in June 2008. For markets still using humidity indicator cards containing cobalt dichloride, there is NO technically suitable alternative. • Trend to show volume decreases can be found in the confidential attachment • Worldwide misunderstanding of REACH requirements for SVHC resulted in near hysteria in June 2008. Sony sent notification to suppliers stating that Cobalt Dichloride was banned and within 2 weeks all major semiconductor companies adopted the same requirement of their suppliers. The problem was, no technically acceptable alternative was available which resulted in dramatic supply chain problems. • Cobalt Dichloride used in humidity indicators cards is highly diluted. Most indicator cards contain 0.1%-0.3% cobalt dichloride.

			• Much of the remaining humidity indicator card market that still uses Cobalt Dichloride is military related which is exempt from authorization. The military applications are world-wide, and the humidity indicators are considered Critical Application Item which has a definition of: An item which is essential to weapons performance, operation, the preservation of life, or safety of operating personnel, as determined by the military services. • For military supply around the world there are numerous supply routes that are utilized, so how do we control the supply? o Direct sales of products to military o Sale of products to military sub-contractors that integrate the humidity indicator into military part o Sale of replacement part products to distributors who in turn sell to the government. (Called Small Business Set-Asides) o Sale of product to industrial users for a non-military applications in an article, that later is adopted by the military. o Example: A humidity indicator is an integral part of a very well known missile defense system made by Raytheon (system name confidential). This system is used by Germany, Poland, Greece, Netherlands & Spain, as well as many other countries around the world. The humidity indicator on the system must be replaced at regular intervals. What happens if German defense authorizes use of Cobalt Dichloride for defense purposes, but Netherlands and Poland do not? Is Raytheon going to redesign an entire missile defense system because of a little card that contains very small amounts of Cobalt Dichloride, especially considering there is no technically acceptable alternative? o The burden of having to procure authorization to use Cobalt Dichloride from the Competent Authority from each Member State is nonsensical and has the potential of wreaking havoc if one Member State declines. o The more practical alternative is the give a Specific Use Exemption if it is decided by Member States that Cobalt Dichloride would require Authorization. • Specific Use Exemption o Cobalt dichloride is already risk is properly controlled by existing EC legislation Directive 2004/37/EC o occupational aspects are managed and controlled ☐ Risk Management Measures are in place. We have been producing the product for over 60 years with no health problems ☐ Production and use is performed by skilled operators ☐ No possibility of inhalation in manufacturing or use

			o No consumer exposure o Humidity indicator cards are reversible – they can change from blue to pink back to blue so they can be used over and over again. o Very low volume of CoCl2 used in total and in a per part basis Overall, benefits of the use of Cobalt Dichloride for humidity indicator cards far outweigh the burdens that would result from Authorization.
862	2011/09/12 23:05 File attached	Central Association of Surface Treatment Professionals Germany (ZVO) BehalfOfAnOrganisation Industry or trade association Germany	In the event that these substances are included in Appendix XIV of the REACH regulations we demand that there has to be an exception to the rules to allow the use of Cobalt(II)-Salts for the purpose of anti-corrosion, decorative and bright Cobalt-Alloy-Plating.

838	2011/09/12 18:40 File attached	LKS Kronenberger GmbH Metallveredlungswerk BehalfOfAnOrganisation Company Germany	Because of a safety application, properly controlled risks by German laws regulations and according to article 58 (2) we file/demand an exemption of the application of Cobalt(II)-Chlorid in surface treatment processes/galvanic surface treatment technologies.
817	2011/09/12 17:07	BehalfOfAnOrganisation Company United Kingdom	The use of Cobalt dichloride in animal feed falls under the scope of food safety regulation (EC EC 178/2002) and, as such, is exempted from Authorisation. As per REACh legislation (Title 1 – Article 2- 8b), intermediate uses are exempted from Authorisation. Cobalt dichloride is used as intermediate to produce Cobalt caboxylates, to produce vitamin B12. Ceramic and porcelain applications are also recognized as intermediate uses. When used in some formulations, like for biogas, the content of Cobalt chloride may be sufficiently low (< 0.01%) to be exempted from Authorisation. On top of that, CMR compounds are already covered by other legislations including: the Carcinogens Directive 90/394/EEC, Directive 98/24/CE, Directive 2004/37/EC and IPPC directive (Dir. 2008/1/EC) cover already risk management of carcinogens at work.

690	2011/09/09 14:59	BehalfOfAnOrganisation Company Germany	Antrag auf eine Ausnahmeregelung für die Verwendung von Cobalt-II-Salzen gemäß Artikel 58(2) der REACH Verordnung. Artikel 58(2): Verwendungen oder Verwendungskategorien können von der Zulassungspflicht ausgenommen werden, sofern - auf der Grundlage bestehender spezifischer Rechtsvorschriften der Gemeinschaft mit Mindestanforderungen an den Schutz der menschlichen Gesundheit oder der Umwelt bei der Verwendung des Stoffes - das Risiko ausreichend beherrscht wird. Bei der Festlegung derartiger Ausnahmen ist insbesondere die Verhältnismäßigkeit des mit der Art des Stoffes verbundenen Risikos für die menschliche Gesundheit und die Umwelt zu berücksichtigen Entsprechend den europäischen und nationalen Regularien ist gewährleistet, dass die nationale Gesetzeslage in Deutschland eine ausreichende Sicherheit von Mensch und Umwelt garantiert: In der EU ist die Sicherung von Mensch und Umwelt beim Gebrauch von Chromtrioxid und seinen Lösungen gewährleistet durch die konsequente Umsetzung der folgenden gesetzlichen Regelungen: • EG 1907/2006 (REACH-Verordnung) • EG/1272/2008 (GHS-Verordnung) • 2002/95/EG (ROHS) • 2002/96/EG (WEEE) • 196/82/EG (Seveso-II-RL) • 2010/75/EU (IVU) • 2000/60/EG (WRR) • 98/249/EG In Deutschland werden diese Aspekte zusätzlich durch folgende Verordnungen erweitert bzw. umgesetzt: • Chemikaliengesetz • Störfallverordnung • Gefahrstoffverordnung • Bundesimmissionsschutzgesetz • Arbeitsstättenverordnung, ASR • Verordnung zur arbeitsmedizinischen Vorsorge • Arbeitsschutzgesetz • Kreislaufwirtschafts- und Abfallgesetz • Wasserhaushaltsgesetz • Abwasserverordnungen • Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen

			• TrwS, TRGS • Berufsgenossenschaftliche Vorschriften • Betriebssicherheitsverordnung Der sichere Umgang wird wesentlich im Rahmen der Bundes-Immissions-Schutz-Verordnungen (12. BimSchV) und der Störfallverordnung (StöfallV), §§ 8 und 9, geregelt. Einie sichere Handhabung mindestens für die Unternehmen, die den einfachen Pflichten der Störfallverordnung unterliegen, ist bereits gegeben, wie dargestellt. Aus diesen Gründen beantragen wir eine Ausnahmeregelung für die Verwendung von Cobalt-II-Salzen in Passivierungslösungen der galvanischen Oberflächenbeschichtung.
689	2011/09/09 14:56 File attached	DSM BehalfOfAnOrganisation Company Netherlands	Exemption is requested for the authorization of cobalt chloride in fermentation processes. Arguments are: - the volumes are very low - essential trace element for biological processes - uses at the fermentation facilities are contained - after use of fermentation no further exposure to humans and/or the environment - see for further information attached document
684	2011/09/09 14:20 File attached	BehalfOfAnOrganisation Company Germany	We suggest that all steps in the process of using CoCl2 in scientific R&D should be exempted from authorization. This should cover the steps starting from manufacture of the substance (already exempted), filling into packages, preparation of formulations described in standards or Pharmacopoeias like e.g. DIN, EN, ISO, ASTM, Reag. Ph. Eur and ACS, till the use as calibration standard for ICP and AAS. The use of these formulations for scientific R&D is already exempted. CoCl2 is an important substance for scientific R&D. It is used as analytical reagent, e.g. as calibration standard for ICP and AAS in laboratories as well as ISO-certificated laboratories, and in routine analytics for quality control of pharmaceutical raw materials and finished products. No alternative methods are available for the use of cobalt chloride as element standard. ISO-certified labs and quality control labs are obliged by governmental organizations (e.g. FDA) to perform the calibration of instruments on a regular basis and therefore, have the need to use cobalt chloride formulations. It is actually not possible to replace CoCl2 in these applications

			which are described in DIN, EN, ISO and ASTM. Therefore, no substitution is possible for these usages. These formulations will only be supplied in packages used in laboratories, e.g. sealed cells, ampoules or bottles. All formulations mentioned in the uses described above are used in the laboratory by industrial and professional users that are well-trained. The volume needed for one analysis/calibration is minimal. The exemption is required e.g. to secure the supply of medicinal products as well as the calibration of analytical instruments and to secure routine analytics done in laboratories.
683	2011/09/09 14:05 File attached	BehalfOfAnOrganisation Company Germany	We suggest that all steps for the use of Co salts as essential trace element in fermentation processes and in the production of dehydrated culture media should be exempted from authorisation. Co is an essential trace element for nutrition of all biological organisms (like humans, animals, plants, or bacteria). It is an indispensable part of many (co-)enzymes (like cobalamin, vitamine B12). Without a certain concentration of this trace element organisms are not able to grow due to deficiencies in the respective enzyme activities. Co as essential trace element cannot be substituted by any other element or substance in this unique function. Co is used as trace element in fermentation processes as well as part of the formula of some dehydrated culture media to support the growth performance of bacteria. The use of Co salts as essential trace elements in fermentation processes or the manufacturing of dehydrated culture media consists of the following three main steps (see also attachment 1): 1) Manufacturing/import of the Co salt The manufacturing of Co salts is not subject to authorisation. 2) Formulation of a feeding solution/solid feeding mixture for production The feeding solution/solid feeding mixture for the fermentation process/dehydrated culture media is made of solid Co salts and has Co concentrations below the classification limit (< 0.01 % Co). This formulation is added to the fermentation process or the manufacturing process of dehydrated culture media. 3) Use as essential trace element in the fermentation process/dehydrated culture media Co salts are added as essential trace elements to fermentation processes and to dehydrated culture media in industrial and professional applications to facilitate bacterial growth. The

			concentration of Co in these final applications is very low (below 100 ppm, therefore below classification limit). We suggest that all steps (i.e. also step 2) for the use of Co salts as essential trace element in fermentation processes and in the production of dehydrated culture media should be exempted from authorisation due to the following reasons: - The manufacturing of the substance is exempted and the final use in the fermenter or dehydrated culture media is exempted due to the very low concentration which is below the limit for classification and labelling. - An authorisation of Co salts in these applications cannot result in a substitution of Co as it is an essential trace element. - All legally required risk management measures are implemented to ensure a safe handling of the substance. Based on the argument that Co cannot be substituted in its unique function as trace element, we also consider the uses "formulation and adding" (see step 2) as essential which should not require an authorisation.
678	2011/09/09 13:15	Hach Lange GmbH BehalfOfAnOrganisation Company Germany	It is essential to exempt the use of Cobalt dichlorid for "analysis purposes" respective "laboratory uses" from the requirement for approval, or it should be classified as an approved use. Cobalt dichloride is a substance, that is mandatory in the ISO6271 (Clear liquids -- Estimation of colour by the platinum-cobalt scale) and ISO 4630 (Clear liquids -- Estimation of colour by the Gardner colour scale)
629	2011/09/08 13:32 File attached Confidential	Firma Weiand BehalfOfAnOrganisation Company Germany	National and European law already requires aspects of regulatory monitoring and control as well as to the increasing internationalization of requirements. Any additional configurable prioritization and approval of changes will only reproduce the current national requirements. Taking these experiences into account an inclusion of the hard chromium plating from Chromic acid in Annex XIV of the REACh regulation is not necessary.

617	2011/09/08 10:19	CEPE BehalfOfAnOrganisation Industry or trade association Belgium	Intermediate uses of cobalt dichloride, including the manufacture of drying agents for paints and printing inks, should be exempted according to article 2 (8) b from the REACH Regulation.
593	2011/09/07 11:46	BehalfOfAnOrganisation Company Slovakia	Use as essential micro element in biotechnological/fermentation processes, in terms of REACH: Intermediate for formation of a Cobalt-containing biocatalyst, used in closed processes only. No wide dispersive use, maximal consumption 330 kg of CoCl2 x 6H2O per year. Procedural and control technologies applied to minimise emissions including residual emissions from rigorous containment and emissions from purification, cleaning, maintenance after accidents and where waste is generated. Special procedures before entering the system. Trained and authorised personnel only. Procedures well documented and supervised.
588	2011/09/06 15:24 File attached Confidential	BehalfOfAnOrganisation Company Belgium	the use of CoCl2 as a trace element in fermentation processes. Amounts to be used are very minimal (max. 1kg/year, see further in confidential part)

572	2011/09/01 13:25	Umicore NV/SA BehalfOfAnOrganisation Company Belgium	According to REACH Title 1, Chapter 1, Article 2, 8b all intermediate uses are exempted from Authorisation. We are therefore of the opinion that all supported uses to which PC19 is assigned (cfr. registration dossier) should be specifically listed as being exempted in the recommendation for prioritisation of ECHA.
571	2011/09/01 11:15 File attached	BehalfOfAnOrganisation Company Belgium	An exemption is asked for the particular use of CoCl2 in fermentation processes. Detailed comments see document in attachment.
563	2011/08/30 21:04 File attached	Cobalt REACH Consortium Ltd (CoRC) BehalfOfAnOrganisation Industry or trade association United Kingdom	Use of cobalt dichloride as intermediate to manufacture other chemicals is exempt (REACH Title 1, Chapter 1, Article 2, 8b). Specific uses considered as intermediate are listed below: -Manufacture of cobalt dichloride. -Use of cobalt dichloride in the manufacture of cobalt carboxylates and resinates (intermediate use). -Industrial use of cobalt dichloride in surface treatment processes (intermediate use). -Industrial use of cobalt dichloride in the manufacture of inorganic pigments & frits, glass and ceramic ware (intermediate use). -Industrial use of cobalt dichloride in the manufacture of textile dyes (intermediate use). -Industrial use of cobalt dichloride in the manufacture of chemicals and in other wet-chemical processes as intermediate. Authorisation under REACH is not required when a substance is used in food or feeding stuffs in accordance with Regulation (EC) No 178/2002.

562	2011/08/30 16:30 File attached	Bio.be BehalfOfAnOrganisation Industry or trade association Belgium	Use of cobalt dichloride in fermentation processes. Cobalt is an element that occurs naturally in many different chemical forms throughout the environment. It is a natural earth element and is present in trace amounts in most rocks, soil, surface and underground water, plants and animals. Although the average level of cobalt in soils throughout the world is 8 mg/kg dry weight there are soils with as much as 70 mg/kg. All natural waters contain trace levels of cobalt, drinking water contains between 0.1 and 10 ppb. All the cobalt used in the industry has been subtracted from the environment. The element Cobalt is a component of vitamin B12, which is essential for human and animal health. The total daily intake of cobalt in humans may be as much as 1 mg, but almost all will pass through the body unabsorbed, except cobalt in vitamin B12. Cobalt is not accumulating in mammalian tissues. Cobalt is essential for nitrogen fixation by free-living bacteria, blue-green algae, and symbiotic systems.In the marine environment cobalt is needed by blue-green algae (cyanobacteria) and other nitrogen fixing organisms. In higher plants, cobalt has been shown to be an essential element for legumes, which have nodules containing nitrogen-fixing bacteria.
556	2011/08/25 12:34 File attached Confidential	Manufacture Française des Pneumatiques Michelin BehalfOfAnOrganisation Company France	no comment

IV - COMMENTS ON USES FOR WHICH REVIEW PERIODS SHOULD BE INCLUDED IN ANNEX XIV, INCLUDING REASONS FOR THAT:

#	Date (Attachment provided)	Submitted by (name, Organisation/ MSCA)	Comment
1849	2011/09/15 00:09	European Diagnostics Manufacturers Association (EDMA) BehalfOfAnOrganisation Industry or trade association Belgium	No Comment
1804	2011/09/14 20:46 File attached	ACEA - European Automobile Manufacturers Association BehalfOfAnOrganisation Industry or trade association Belgium	See attachment.

1784	2011/09/14 19:46	BehalfOfAnOrganisation Company Canada	Review periods should be defined on the basis of the scheduling and timeline for field data acquisition and formal reporting on the exposure to workers as it relates to the uses under consideration for exemption.
1710	2011/09/14 17:46	BehalfOfAnOrganisation Industry or trade association United Kingdom	Please refer to the following document for technical details: 1) final Joint Response Comments (JRC) on the five cobalt salts that were submitted into the present ECHA stakeholder consultation on Tuesday 30 August 2011 2) Technical Annex to the Cobalt Reach Consortium's (CoRC) Joint Response to ECHA's Consultation on the Proposed Inclusion of cobalt diacetate in Annex XIV of REACH (submitted September 2011)
1854	2011/09/14 17:46 File attached	BehalfOfAnOrganisation Industry or trade association United Kingdom	Please refer to the following document for technical details: 1) final Joint Response Comments (JRC) on the five cobalt salts that were submitted into the present ECHA stakeholder consultation on Tuesday 30 August 2011 2) Technical Annex to the Cobalt Reach Consortium's (CoRC) Joint Response to ECHA's Consultation on the Proposed Inclusion of cobalt diacetate in Annex XIV of REACH (submitted September 2011)

1467	2011/09/14 11:28 File attached Confidential	 BehalfOfAnOrganisation Company Sweden	-
931	2011/09/13 13:15	Dr. Kubitz GmbH BehalfOfAnOrganisation Company Germany	Use in electrolytes for the deposition of cobalt layers intended as scale for magnetic measurements of distances and angles.
588	2011/09/06 15:24 File attached Confidential	 BehalfOfAnOrganisation Company Belgium	we will need additional 3 years to evaluate the feasability of alternatives and/or alternative process conditions, and implementing them.

563	2011/08/30 21:04 File attached	Cobalt REACH Consortium Ltd (CoRC) BehalfOfAnOrganisation Industry or trade association United Kingdom	We acknowledge that ECHA have not proposed review periods for any uses during this prioritisation. Any review period would need to be developed based on a full understanding on the supply/value chain for cobalt sulphate. Such an understanding is not available at present and would only be possible given sufficient time to investigate the supply/value chain further. We would urge ECHA not to set review periods until suitable robust data are available.
562	2011/08/30 16:30 File attached	Bio.be BehalfOfAnOrganisation Industry or trade association Belgium	
556	2011/08/25 12:34 File attached Confidential	Manufacture Française des Pneumatiques Michelin BehalfOfAnOrganisation Company France	no comment