

June 12, 2017

To: Inorganic Pigments Committee

Subject: Canada Final Screening Assessment for Cobalt

Environment Canada and Health Canada (the "Ministries") published the [Final Screening Assessment for Cobalt Substances](#) on May 26, 2017. The Final Screening Assessment conclusions are consistent with the Draft Screening Assessment published in 2014. Both concluded that all Cobalt substances are potentially toxic under the Canadian Environmental Protection Act (CEPA).

Along with the Final Assessment, the Ministries published a [Proposed Risk Management Approach Document](#), which contains the same conclusions as the Draft Risk Management Scope Document published in 2014. The Proposed Risk Management Approach focuses future regulatory action on what the Ministries consider to be potentially significant sources of Cobalt in the environment, such as mining, smelting and alloy production, which do not include pigments. The overall objective of the Proposed Risk Management Approach is to assess and reduce anthropogenic releases of Cobalt to water. The deadline for comment on the Proposed Risk Management Approach Document is July 26, 2017.

CPMA comments on the 2011 list of potentially toxic Cobalt compounds (the "Cobalt Grouping") were successful in supplying sufficient information for the Ministries to conduct the assessment of Cobalt pigments without the use of mandatory customer surveys of downstream users of the pigments in Canada. Overall, the efforts of CPMA to inform and guide the regulatory process on Cobalt in Canada with respect to pigments have been successful. The Final Screening Assessment and the Proposed Risk Management Approach do not directly impact complex inorganic color pigments and customer organizations related to pigments have avoided the burden of intrusive and difficult survey forms.

#### **Conclusions of the Final Screening Assessment:**

1. Elemental Cobalt is toxic to the environment in all forms, without regard to whether they are listed in the Cobalt Grouping. Therefore, absence or presence of a substance on the list used for the Cobalt Grouping has no bearing on this conclusion.
2. Cobalt is not, however, released to the environment in a manner which currently creates a risk to human health and the environment.
3. Cobalt is not entering the environment in a quantity or concentration which would compromise human health.

#### **Industries Reviewed in the Screening Assessment:**

The following list contains the industries reviewed in the Screening Assessment and the source of Cobalt raising a concern in these industries, which could be indirectly related to complex inorganic color pigments:

1. The Rubber Industry, specifically Cobalt Carboxylate salts used in tire formulations.
2. Manufacture or use of catalysts containing Cobalt.
3. The Manufacture of chemicals, specifically a soluble Cobalt catalyst which is used by a specific facility.
4. The Paints and Coatings Industry, specifically soluble Cobalt driers used in paint formulations.
5. The Plastic Industry, specifically soluble Cobalt catalysts used in polyester resin.
6. Fertilizers.

7. Animal feed manufacturing.
8. Alloy and superalloy manufacturing.
9. Base metal smelting and refining.

In the human health portion of the Final Screening Assessment, Health Canada considered potential exposure to Cobalt in cosmetics, but did not conclude that a significant risk resulted from current uses of Cobalt in cosmetics. The three Cobalt substances which are currently registered for use in cosmetics are Cobalt, Cobalt Octoate, and Cobalt Chloride, not Cobalt containing complex inorganic color pigments. Final Screening Assessment, Section 4.4.

#### **Industries Reviewed in the Proposed Risk Management Approach:**

The Proposed Risk Management Approach does not focus on pigments or pigment related products for any regulatory action. The Document recommends that the following industries be subject to further assessment and risk management action for Cobalt releases to the environment.

3.2.1 Metal mining.

3.2.2 Base metals smelting and refining.

3.2.3 Chemical manufacturing. The identified issue is a specific facility using a soluble Cobalt compound as a homogeneous catalyst in a chemical manufacturing process in Canada. There is no indication that it relates to pigments.

3.2.4 Pulp and paper. The identified issue is Cobalt contained in effluents from unknown sources such as deinking facilities in Canada. Complex inorganic color pigments containing Cobalt are not generally used in printing inks because the particles are too hard for metal printing plates and cause scratching. Cobalt driers could be used in inks.

3.2.5 Waste management. The identified issue involves a general concern with landfill leachate from landfills. Further assessment will be conducted by the Ministries.

#### **Future Impact:**

The Final Screening Assessment and the Proposed Risk Management Approach will have a significant indirect impact in the longer term on all Cobalt containing substances, including pigments. Because the Ministries have concluded that Cobalt in all forms poses a potential hazard under CEPA, Federal, Provincial and local authorities may impose additional restrictions for water, air and waste discharges, as well as possible workplace and consumer related exposures.

#### **Downstream Customers:**

The Final Cobalt Assessment in Canada, coupled with the recent National Toxicological Program (NTP) Final Monograph on Cobalt, may create confusion or inconsistencies for downstream customer industries with respect to consumer product labelling, consumer product content, public communication, or media information. In an effort to provide downstream customer industries that purchase/use cobalt-based color pigments with consistent approaches to compliance and stakeholder communication, CPMA will develop appropriate communication forums to provide downstream customers with relevant technical information.

As a first step in that process, CPMA will develop an inventory of relevant downstream customer trade associations to invite to participate in future CPMA customer education outreach.