

ANALYSIS OF ALTERNATIVES

non-confidential report

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Submitted by:	<i>LANXESS Deutschland GmbH in its legal capacity as Only Representative of LANXESS CISA (Pty) Ltd.</i>
Substance:	<i>Chromium trioxide EC No: 215-607-8, CAS No: 1333-82-0</i>
Use title:	<i>Formulation of Mixtures</i>
Use number:	<i>1</i>

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1. SUMMARY

The following substance is subject to this Analysis of Alternatives (AoA):

Table 1: Substance of this AoA.

#	Substance	Intrinsic property(ies) ¹	Latest application date ²	Sunset date ³
1	Chromium trioxide <u>EC No:</u> 215-607-8 <u>CAS No:</u> 1333-82-0	Carcinogenic (category 1A) Mutagenic (category 1B)	21 March 2016	21 September 2017

¹ Referred to in Article 57 of Regulation (EC) No. 1907/2006

² Date referred to in Article 58(1)(c)(ii) of Regulation (EC) No. 1907/2006

³ Date referred to in Article 58(1)(c)(i) of Regulation (EC) No. 1907/2006

Chromium trioxide is categorized as Substance of Very High Concern (SVHC) and is listed on Annex XIV of Regulation (EC) No 1907/2006. Chromium trioxide is an inorganic salt based on hexavalent chromium (Cr(VI)). Adverse effects are discussed in the Chemical Safety Report (CSR).

When brought in contact with water, chromium trioxide (EC No 215-607-8) forms two acids and several oligomers: Chromic acid (EC No 231-801-5), Dichromic acid (EC No 236-881-5), oligomers of chromic acid and dichromic acid (also referred as "Chromic acids and their oligomers"). For the purpose of this AoA the terms chromic acid is synonymous with a mixture containing chromium trioxide and water.

Chromium trioxide is used in surface treatment processes that are critical to different industry sectors. Use (1) covers the formulation of the mixtures that are used within these surface treatment processes and applications. The reader is referred to the full AoA for uses (2), (3), (4), (5), and (6) submitted as part of this Application for Authorisation which include, as the case may be, formulations containing chromium trioxide.

At the formulation stage chromium trioxide has no (separate) function, hence no AoA can (or needs) to be made. Accordingly, no alternatives for use (1) have been identified.