

Paris, 27 November 2019

EUROPEAN SPACE SECTOR CONTRIBUTION TO ROHS REVIEW

Reference: European Commission Public Consultation “Hazardous substances in electrical/electronic equipment – evaluation of restrictions”

This is the joint contribution of the European Space Industry, represented by ASD-EUROSPACE – with the support of European and national space agencies – to the European Commission’s Public Consultation “Hazardous substances in electrical/electronic equipment – evaluation of restrictions”.¹ It has been prepared with support of the Materials and Processes Technology Board of the European Space Components Coordination (ESCC MPTB).²

Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in Electrical and Electronic Equipment – hereafter the “**RoHS2**” Directive) foresees a number of explicit exclusions from its scope in Article 2(4), including but not limited to “*equipment designed to be sent into space*”, “*means of transport for persons or goods*” and “*equipment which is necessary for the protection of the essential interests of the security of Member States*” (lit. (a), (b) and (f)).

These exclusions have been a major improvement for the European Space Sector comparing to the initial version of RoHS (Directive 2002/95/EC – “**RoHS1**”),³ where they were not explicitly foreseen and had to be introduced through subsequent specific European Commission clarifications.⁴ Still today, the Space Sector strongly relies on these exclusions, as some of the restricted substances – *lead* in particular – continue to be essential components for space hardware production without suitable alternatives.

However, other regulatory and market pressures make it increasingly difficult to rely on the use case under RoHS exclusions. Due to the overall transition of the Electronics Industry worldwide to a *lead*-free realm, the European Space Sector is more and more confronted with a situation where they cannot avoid using EEE parts with *lead*-free coatings and they need to manage the associated risk of tin whisker growth. However, the exclusion under RoHS2 has been very

¹ https://ec.europa.eu/info/law/better-regulation/initiatives/ares-2018-3106007/public-consultation_en.

² See the list of MPTB participants at the end of this contribution (page 3).

³ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32002L0095>.

⁴ [European Commission, Frequently Asked Questions on Directive 2002/95/EC and Directive 2002/96/EC](#), page 5 (last par.).

important for the European Space Sector in that it ensures the continued use of lead in Electronic equipment without jeopardizing the critical reliability requirements of Space equipment.

This commercial obsolescence is further exacerbated by regulatory measures targeting RoHS-restricted substances such as *lead* also as Substances of Very High Concern (“SVHC”) under Regulation (EC) No 1907/2006 (“REACH”) and the revised Waste Framework Directive 2008/98/EC (“WFD”). In particular, the requirements for EU suppliers of articles containing a substance on the Candidate List of SVHCs for Authorisation⁵ in a concentration above 0.1 % weight by weight to communicate safe use information down the supply chain (REACH Article 33(1))⁶ and also to the forthcoming European Chemicals Agency (ECHA) “SCIP” database for waste operators (WFD Article 9 (1) (i))⁷ present immense challenges for companies in the European Space Sector as producers of very complex objects.

With regard to WFD Article 9 (1) (i), ASD-Eurospace has expressed the opinion that this provision does not apply to equipment designed to be sent into space and related means of transport (launch vehicles and spacecraft, such as satellites for telecommunication, navigation or space exploration) which do not result in “waste” in the EU and therefore – not being part of the Circular Economy – are considered to fall outside the scope of WFD.⁸

Just like under RoHS1, no explicit ‘exemption’ is foreseen in WFD for space products. However, unlike under RoHS1 (see above, footnote 4), the European Commission did not to the present date clarify that such non-waste hardware is also out of scope.⁹ We believe that the same exclusion rationale applies in both cases, RoHS is only a specific piece of waste-related legislation, that supplements the general Union waste management legislation, such as Directive 2008/98/EC (RoHS Recital (11)), and a notification for non-waste hardware to ECHA under Article 9 of the revised WFD does not add any value for waste operators.

To conclude, ASD-Eurospace recalls

- 1. The importance of existing exclusions from the RoHS scope in its Article 2 covering the Space Sector;**
- 2. The need for a coherent application of RoHS and the general Union waste management legislation such as Directive 2008/98/EC, as well as REACH, including the need to take into account the Space-specific end-of-life scenarios for launched hardware.**

⁵ <https://echa.europa.eu/candidate-list-table>.

⁶ See [ASD Eurospace, Space Sector Contribution to the EC REACH Review 2017 – Position Paper](#).

⁷ <https://echa.europa.eu/scip-database>.

⁸ See [ASD Eurospace, News of 9 September 2019](#).

⁹ See [European Commission, letter of 14 June 2019](#).

Kind regards,



*Pierre LIONNET
Director of Research
ASD-EUROSPACE*

Pierre.lionnet@eurospace.org

+33-(0)1 44 42 00 70

This contribution has been prepared with the support of the Materials and Processes Technology Board of the European Space Components Coordination (ESCC MPTB). It reflects the best knowledge available from experts in their field, thanks in particular to the support of ASD-EUROSPACE, the following corporations represented in the MPTB:

**AIRBUS DEFENCE AND SPACE, ARIANEGROUP, AVIO, MT AEROSPACE,
OHB, RUAG, TESAT, THALES ALENIA SPACE**

and space agencies:

**AGENZIA SPAZIALE ITALIANA (ASI), CENTRE NATIONAL D'ETUDES
SPATIALES (CNES), EUROPEAN SPACE AGENCY (ESA), GERMAN
AEROSPACE CENTER (DLR)**

Other MPTB participants are MAP, a manufacturer of mixtures, REACHLaw, a consultancy supporting the group on REACH and other chemical regulations, and the European Defence Agency (EDA) as observer.