

## Impurities in Alloys (final version dated 26072010)

### Background

Eurofer members have expressed concern about how impurities in imported alloys (particularly ferro-alloys and imported steel ingots) should be addressed in IUCLID 5 submissions. Some confusion has also arisen because the ECHA Guidance on Waste and Recovered Substances indicates that impurities should be assigned to individual constituent substances within a recovered mixture. IUCLID 5 does not appear to provide a suitable mechanism to address impurities shared commonly within the chemical matrix of an alloy.

REACH recognises alloys as special preparations (i.e. special mixtures) and Annex I, 011 states that ‘When assessing the risk of the use of one or more substances incorporated into a special preparation (for instance alloys), the way the constituent substances are bonded in the chemical matrix shall be taken into account’. It is important to understand and recognise that **impurities are dispersed throughout the chemical matrix of the alloy and not directly associated with individual constituent substances. Therefore, they cannot be meaningfully assigned to individual constituent substances in the alloy. REACH deals specifically with the registration of substances**, while preparations/mixtures are classified in accordance with the CLP Regulation (by 1<sup>st</sup> June 2015) and impurities in the alloy will as such be taken into account at that time.

**This document is intended to provide the required mechanism for successful submission of registration dossiers for substances in alloys and the link to sound science.**

### IUCLID 5 Submissions: sections 1.2 and 3.4

Substances in special preparations should be registered with a  $\geq 100\%$  purity. As already indicated above, impurities cannot meaningfully be assigned to individual constituent substances in the alloy.

As a consequence, **section 1.2 “Substance composition” of IUCLID 5** should indicate “Degree of purity  $\geq 100\%$  (w/w)” and for “Constituents, Typical concentration  $\geq 100\%$  (w/w)”. Furthermore, it is recommended that the following statement is entered into the “Constituents” remarks box: “As the substance is part of the chemical matrix of an alloy (i.e. special preparation / special mixture according to REACH), impurities cannot be meaningfully assigned to the substance”.

In order to make it clear towards ECHA that the 100% purity mentioned in section 1.2 of IUCLID 5 is linked with the fact that the substance is included in an alloy, the box marked “substance in mixture” should be ticked-off in section 3.4 of IUCLID 5 “Form in the supply chain”.

**Important note on the recovery of substances**

Eurofer members involved in the recovery of substances from steel and other metal/alloy scrap are advised to refer to the ECHA Guidance on Waste and Recovered Substances version May 2010<sup>1</sup>. *Section 2.2.3.1 of the ECHA Guidance addresses the recovery process that results directly in the formation of an article.*

For recovered substances and substances in recovered mixtures used in the production steel semi-finished products designated as articles under REACH, an alternative non-registration approach to Article 2(7)(d) is offered.

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<sup>1</sup> [http://guidance.echa.europa.eu/docs/guidance\\_document/waste\\_recovered\\_en.pdf?vers=12\\_05\\_10](http://guidance.echa.europa.eu/docs/guidance_document/waste_recovered_en.pdf?vers=12_05_10)