GUIDANCE ON COMPLETION OF SECTIONS 1 AND 3 OF THE IUCLID 5 DOSSIER: IRON [EINECS number 231-096-4, CAS number 7439-89-6]

for more than one type form of iron, e.g. elemental iron in alloys and pig iron

Introduction

This document deals with the declaration of more than one form of iron and should be read in conjunction with the guidance documents for the individual forms of iron concerned.

http://www.iron-consortium.org/assets/files/Guidance/TWG125-IUCLID1-3_iron_furnace_Final_100826.pdf

http://www.iron-consortium.org/assets/files/Guidance/TWG127_IUCLID1-3_elemental_iron_V5_100906.pdf

We will use the example in the heading above and will refer only to those items/fields requiring clarification.

Section/Field	Elemental Iron	Pig Iron
Name	Elemental iron [in alloys]	Iron, Furnace / Pig iron
1.2: Composition	Create as many forms of iron as you need, one substance per block.	
Brief description	Enter an appropriate description of your substance as placed on the market e.g. elemental iron in alloys, in a mixture, in an article - in massive or powder form.	Pig Iron refers to Blast Furnace Iron (hot metal, pig iron, granulated iron, plate iron, flat iron), formed by reduction of iron minerals such as iron ore lump, sinter and pellets.
Degree of purity	100% w/w	>80% w/w/
Typical concentration	100% w/w	Your own range or level
Concentration range	>80% w/w	>80% w/w
Impurities	Create a block for impurities and enter this statement: "Alloys (REACH Article 3(41)) are special type of preparation 'special preparation' (Recital 31, Annex I and Annex II). Only the individual substances (here metals) require registration (REACH article 6) and not the alloys themselves. As the substance is part of the chemical matrix of an alloy, impurities cannot be meaningfully assigned to the substance. Thus, the purity of the substance is 100%."	Create blocks for each impurity per the guidance document for iron, furnace.
1.4 Analytical information		
Analytical methods and spectral data	The analytical methods for the different forms of Iron are described in the attached document.  Chapter_1.4_Analysis_Spectral_Data_-Iro	
Results of analysis	Create a separate block for each type of analysis / form of iron	
Chemical analysis - sameness		

Analysis type	Elemental iron in alloys	Chemical analysis to prove sameness
Tested substance	"Elemental iron in ...." [.... is the name of your alloy	"Pig iron from ....."
Analysis results	Attach a PDF document on your letter head along the lines of this template.  Elemental_Fe_Analysis_template.docx	Attach a file with your analysis results.
Method used	Please refer to the document "name.pdf" attached above.	Specify the analysis method and standard in accordance with which the analysis has been carried out, e.g. XRF in accordance with ISO ...
Remarks	"The registered substance is inorganic and a constituent of an alloy, where the constituent substances are bound in the chemical matrix. GC, HPLC, IR, NMR, MS and UV are not appropriate spectral techniques for alloys. Methods such as XRF, XRD and ICP are more appropriate techniques for the provision of the required structural and compositional information for this type of inorganic substance and a usual practice in the metals industry. However, while it may provide structural information concerning the alloy, XRD is unlikely to yield information useful for the determination of the sameness of the constituent and reference substances. This is due to the influence of the relative atomic size of the constituents, which determine the crystal structure adopted by the alloy, the extent of lattice strain and the range of solid solubility as well as the position taken up by individual atoms either in the lattice itself or in the interstice. In addition, the cooling rate as well as the thermal and mechanical history has a profound influence on the crystal structure of the alloy."	If you wish to add any remark or information about your analysis results, use this field.
3.1 Technological process	Create a separate block for each form of iron registered.	
Methods of manufacture	We suggest that EU manufacturers provide a brief description of the manufacturing process for their mixtures in this field.	Enter the text for pig iron per the guidance document for iron, furnace.
3.2 Estimated quantities	Please compile the tonnage of the different forms and declare as Fe.	

3.4 Form in the supply chain	Create a separate block for each form of iron registered.	
	Tick "substance in mixture" or "substance in article" as appropriate and complete the fields as per the guidance document for elemental iron.	Tick "available as a substance" [there is no possibility to enter any additional information, for example to make it clear that this refers to pig iron].
3.5 Identified uses	Import the uses template file and delete the sections for those substances not required. Then complete this section per the guidance documents for elemental iron and iron, furnace.	