Version	Treibacher Industrie AG
v.2	Rare Earth REACH Consortium
[date]	27th October 2017

SUBSTANCE IDENTIFICATION PROFILE (SIP)

No	1.1. Chemical Name	1.2. EC Number	1.3. CAS Number	1.4. Composition Type
	Cerium	231-154-9	7440-45-1	Mono-Constituent Substance

This Substance Identification Profile (SIP) is developed to represent the Identification parameters of the Substance described in line with the Substance Identification requirements of REACH Annex VI and relevant Guidances for the purpose to identify the substance

Reference	SI Parameter	Value / Not necessary / Not for SIP	Remark / Justification
2.1.A	**Name or other Identifiers of the substance**		
2.1.1.a	IUPAC Name	cerium(3+)	
2.1.1.b	Other International chemical name		
2.1.2.a	Chemical Name	cerium	
2.1.2.b	Abbreviation		
2.1.2.c	Other names		
2.1.3.a	EC Number	231-154-9	
2.1.3.b	EC Name	cerium	
2.1.3.c	EC Description		
2.1.4.a	CAS Number	7440-45-1	
2.1.4.b	CAS Name		
2.1.4.c	CAS Description		
2.1.5.a	IUBMB Number		
2.1.5.b	INCI Number		
2.1.5.c	Other Catalogue identifiers		
2.1.B	**Substances (with core identifiers) also falling under this substance (with justification)**		
2.1.6.a	Chemical Name		
2.1.6.b	EC Number		
2.1.6.c	CAS Number		
2.1.7.a	Chemical Name		
2.1.7.b	EC Number		
2.1.7.c	CAS Number		
2.2	**Information related to molecular and structural formula of the substance**		
2.2.1.a	Molecular Formula	Ce	
2.2.1.b	Structural Formula		
2.2.1.c	Smiles notation		
2.2.2.a	Optical activity		
2.2.2.b	Typical ratio of (stereo) isomers		
2.2.3.a	Molecular Weight		
2.2.3.b	Molecular Weight range		
2.3	**Chemical Composition of the substance**		
2.3.1	**Main Constituent**		
2.3.1.a	Name -Main Constituent	cerium	
2.3.1.b	CAS Number -Main Constituent	7440-45-1	
2.3.1.c	EC Number -Main Constituent	231-154-9	
2.3.1.d	Concentration range -Main Constituent - Lower value	> 95% (w/w)	
2.3.1.e	Concentration range -Main Constituent - Upper value	< 99% (w/w)	
2.3.1.f	Typical concentration -Main Constituent (= Degree of purity)	ca. 98.5% (w/w)	
2.3.2	**Impurity / Impurities (above 1% or lower if contributing to the hazard or PTB profile)**		
2.3.2.a	Agreed strategy for Impurity profile on SIP		
2.3.2.1.a	Name -Impurity (1)	neodymium	
2.3.2.1.b	CAS Number -Impurity (1)	7440-00-8	
2.3.2.1.c	EC Number -Impurity (1)	231-109-3	
2.3.2.1.d	Molecular Formular -Impurity (1)	Nd	
2.3.2.1.e	Concentration range -Impurity (1)	> 0% (w/w)	
2.3.2.1.f	Concentration range -Impurity (1)	< 5% (w/w)	
2.3.2.1.g	Typical concentration -Impurity (1)	ca. 0.5% (w/w)	
2.3.2.1.h	Hazard -Impurity (1)		
2.3.2.1.a	Name -Impurity (2)	praseodymium	
2.3.2.1.b	CAS Number -Impurity (2)	7440-10-0	
2.3.2.1.c	EC Number -Impurity (2)	231-120-3	
2.3.2.1.d	Molecular Formular -Impurity (2)	Pr	
2.3.2.1.e	Concentration range -Impurity (2)	> 0% (w/w)	
2.3.2.1.f	Concentration range -Impurity (2)	< 5% (w/w)	
2.3.2.1.g	Typical concentration -Impurity (2)	ca. 0.5% (w/w)	
2.3.2.1.h	Hazard -Impurity (2)		
2.3.2.1.a	Name -Impurity (3)	lanthanum	
2.3.2.1.b	CAS Number -Impurity (3)	7439-91-0	
2.3.2.1.c	EC Number -Impurity (3)	231-099-0	
2.3.2.1.d	Molecular Formular -Impurity (3)	La	
2.3.2.1.e	Concentration range -Impurity (3)	> 0% (w/w)	
2.3.2.1.f	Concentration range -Impurity (3)	< 5% (w/w)	
2.3.2.1.g	Typical concentration -Impurity (3)	ca. 0.5% (w/w)	
2.3.2.1.h	Hazard -Impurity (3)		
2.3.3	**Additive(s) (above 1% or lower if contributing to the hazard)**		
2.3.3.a	Agreed strategy for Additives profile on SIP		
2.4	**Substance sameness checking procedure**		
2.4.1	Agreed Spectral data to be used	Techniques that can be used for sameness checking:	Qualitative Analysis: X-Ray diffraction analysis (XRD) can be used to confirm the identity of the substance
2.4.2	Agreed Analytical Methods to be used	Techniques that can be used for elemental analysis and purity determination:	Quantitative Analysis: X-ray fluorescence analysis (XRF) and inductively coupled plasma (ICP) techniques can be used for elemental analysis
2.5	**Approval of the SIP**		
2.5.1	Agreed approval method for the sameness checking procedure using this SIP (Consortium)		
2.5.2	Agreed approval method for the sameness checking procedure using this SIP (SIEF)		

By signing or otherwise approving this Substance Information Profile (SIP), the Company declares that he agrees with the content and purpose of this Substance Identification Profile.

He agrees that his substance does to the best of his knowledge completely fall under the substance identity being represented by the SIP sections 2.1 up to 2.3 sufficient for the purpose of meeting the SIEF requirements and opting for the joint submission Registration dossier to be created by the lead registrant in line with the REACH requirements.

He agrees to fulfil the requirements of the Verification Method described and agreed in the SIP Section 2.4 and takes the appropriate follow-up actions if the substance appears not to fall under the SIP agreed. He agrees that the final result of the Agreed Verification Method for sameness checking procedure is binding.

He agrees that he will inform the Consortium via the Secretariat or the SIEF via the Lead registrant if he has (new) information that might change the content of this SIP or if his Substance is changed in such a way that it might or does no longer fall under the SIP or might potentially have an impact on the content of the Registration dossier

He understands and agrees to be fully responsible for the proper linkage of the substance to the REACH Registration dossier and informing of his supply chain on the safe use of his substance and fulfilling his REACH requirements accordingly.