

SIP				
Version	Rhodia	SUBSTANCE IDENTIFICATION PROFILE (SIP)		
v.2	Rare Earth REACH Consortium			
12/05/2016	12th May 2016			

No	1.1. Chemical Name	1.2. EC Number	1.3. CAS Number	1.4. Composition Type
	Cerium dioxide	215-150-4	1306-38-3	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

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 (IV) oxide		
2.1.1.b	Other International chemical name	not applicable		
2.1.2.a	Chemical Name	cerium dioxide		
2.1.2.b	Abbreviation	not applicable		
2.1.2.c	Other names	ceric oxide ceria cerium oxide, (CeO2)		
2.1.3.a	EC Number	215-150-4		
2.1.3.b	EC Name	cerium dioxide		
2.1.3.c	EC Description	not applicable		
2.1.4.a	CAS Number	1306-38-3		
2.1.4.b	CAS Name	cerium oxide, (CeO2)		
2.1.4.c	CAS Description	not applicable		
2.1.5.a	IUBMB Number	not applicable		
2.1.5.b	INCI Number	not applicable		
2.1.5.c	Other Catalogue identifiers	not applicable		
2.1.B	Substances (with core identifiers) also falling under this substance (with justification)			
2.1.6.a	Chemical Name	cerium tetrahydroxide	The SIEF for cerium dioxide was merged with the SIEF for cerium tetrahydroxide. Cerium tetrahydroxide does not exist as such and should be considered as hydrated cerium oxide, with the formula: CeO2.2H2O, based on experimental characterization and supported by reviews, books and databases. Cerium tetrahydroxide should be exempted from registration based on the Annex V Exemptions from the Obligations to Register in Accordance with Article 2(7)(b) number 6: "Hydrates of a substance or hydrated ions, formed by association of a substance with water, provided that the substance has been registered by the manufacturer or importer using this exemption." A more detailed justification can be provided upon request.	
2.1.6.b	EC Number	234-599-7		
2.1.6.c	CAS Number	12014-56-1		
2.2	Information related to molecular and structural formula of the substance			
2.2.1.a	Molecular Formula	CeO2		
2.2.1.b	Structural Formula	$O \equiv Ce \equiv O$		
2.2.1.c	Smiles notation	[Ce](=O)=O		
2.2.2.a	Optical activity	none		
2.2.2.b	Typical ratio of (stereo) isomers	not applicable		
2.2.3.a	Molecular Weight	172.14 g/mol (CeO2), 208.15 g/mol (Ce(OH)4)		
2.2.3.b	Molecular Weight range	not applicable		
2.2.4	Nanoparticles	Both bulk and nano cerium oxide forms are covered in the dossier. In case, your company is interested to register nano particles, please contact the consortium manager.		
2.3	Chemical Composition of the substance			
2.3.1	Main Constituent			
2.3.1.a	Name -Main Constituent	cerium dioxide		
2.3.1.b	CAS Number -Main Constituent	1306-38-3		
2.3.1.c	EC Number -Main Constituent	215-150-4		
2.3.1.d	Concentration range -Main Constituent - Lower value	>= 80%	Expressed as % dry weight, excluding water.	
2.3.1.e	Concentration range -Main Constituent - Upper value	<= 100%		
2.3.1.f	Typical concentration -Main Constituent (= Degree of purity)		Expressed as % dry weight, excluding water.	
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	Impurities/residual solvents: The Registration Dossier, and in particular the Classification and Labelling proposals and hazard assessment will assume that the substance, as placed on the market, meets the following standards: • All impurities > 1% are other inorganic oxides or other related inorganic substances, similar to the registered substance, which do not significantly affect its physico-chemical, toxicological and ecotoxicological properties based on available data. Present impurities shall not affect the classification & Labelling of the substance and the sum of all impurities shall be <20%. If hazardous impurities are present, any specific risks or impacts on PBT assessment and classification and labelling relating to impurities must be evaluated by the registrants in its own company-specific part of the registration dossier.		
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	none		
2.4	Substance sameness checking procedure			
2.4.1	Agreed Spectral data to be used	XRD		
2.4.2	Agreed Analytical Methods to be used	XRF and ICP for elemental analysis.		
2.4.3	Agreed method to identify nano particles	Under development		
2.5	Approval of the SIP			
2.5.1	Agreed approval method for the sameness checking procedure using this SIP (Consortium)	Individual discussions with Consortium members result in a generic SIP. This generic SIP, after approval by the involved Consortium members, is sent to the entire SIEF for approval.		

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2.5.2	Agreed approval method for the sameness checking procedure using this SIP (SIEF)	A generic SIP is sent to the entire SIEF. SIEF members that do not agree with the draft generic SIP must notify ARCADIS before the deadline being set in the SIEF communication, including any relevant information. SIEF members that agree with the draft generic SIP do not need to notify Arcadis	

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 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.