



Version	SUBSTANCE IDENTIFICATION PROFILE (SIP)
v.4	
13/06/2023	

No	1.1. Chemical Name	1.2. EC Number	1.3. CAS Number	1.4. Composition Type
IP27	Iron orthophosphate	233-149-7	10045-86-0	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 guidance for the purpose of identifying the registered substance and the provision of a 'boundary composition' for IUCLID 6 dossier updates.

Reference	SI Parameter	Value / Not necessary / Not for SIP	Remark / Justification
2.1.A	Name or other Identifiers of the substance		
	CAS (hydrates)		
	Synonyms	Ferric (III) orthophosphate Strengite (iron orthophosphate dihydrate – naturally occurring)	
	SMILES	[O-]P(=O)([O-])[O-].[Fe+3]	
	Molecular formula	Fe.H3O4P	
	Structural image / diagram (indicative)		
	EU food legislation number / INS n°	n/a	
	State / form	Solid: Particulate / Powder	
	Granulometry range	more than 99% of the particles are <100µm in diameter	The substance is considered to be inhalable. Nano forms (in accordance with COMMISSION REGULATION (EU) 2018/1881 of 3 December 2018 on the definition of nanomaterial) have not been identified.
	pH range for aqueous solutions	pH 3.3 to 6.0 at 20.0±0.5°C	
2.1.B	Substances (with core identifiers) also falling under this substance (with justification)		
	Name or other Identifiers of the substance	Not applicable	
	EC Number		
	CAS number		
	Additional information		
2.3	Chemical Composition of the substance		



2.3.1	Main Constituent		
	Name	Iron orthophosphate	
	Typical concentration (%w/w)	95%	
	Concentration range (%w/w)	88 -c.100%	
2.3.2	Typical Impurity / Impurities (above 1% or lower if contributing to the hazard or PBT profile) - create repeat blocks if necessary		
2.3.2.1	Name -Impurity (1)	Goethite (FeO(OH))	
	CAS Number -Impurity (1)		
	EC Number -Impurity (1)	238-746-4	
	Molecular Formula - Impurity (1)		
	Typical concentration (%w/w) -Impurity (1)	<5%	
	Concentration range (%w/w) -Impurity (1)	>0 < 5%	
	Relevant for classification and labelling?	N	
2.3.2.2	Name -Impurity (2)	Silica	
	CAS Number -Impurity (2)	14808-60-7	
	EC Number -Impurity (2)	238-878-4	
	Molecular Formula - Impurity (2)	SiO2	
	Typical concentration (%w/w) -Impurity (2)	<6%	
	Concentration range (%w/w) -Impurity (2)	>0<6%	
	Relevant for classification and labelling?	N	
2.3.3	Additives - create block similar to impurities if relevant		
	Not relevant		
2.4	Classification and labelling		
	Not classified		
2.5	Justification for deviation from substance identity rules		
	not applicable		