Composition output: PM: Slimes and sludges (4) version 'G4 Slimes & sludges - Cluster 2 - 140318' (Tier 1)

Tier 1: Classification based on speciation of elements
Metal speciation/metal mineralogy can be assessed from sequential extraction/metal analysis and mineralogical analysis (XRD and microscopes equipped with EDS (Energy Dispersive Spectrometry) and WDS (Wavelength Dispersive Spectrometry) analyzers. The determination of the speciation requires in-depth knowledge of metal particularities. The classification is based on elemental and speciation data and worst-case 100% dissolution assumption.
In case of classification, further refinement (f.e. TDP data) can be obtained from the consortia for the major drivers.

MeClas
METALS CLASSIFICATION TOOL

Generated on: 19/03/2014 at 11:32

Please visit www.meclas.eu for more information.

Input values:

Element	Conc.% (user input)	Conc.% (ref sample)	Distr.% (ref sample)	Species / Class. entry	Source
Ag	0.700	66.000	100.00	Ag compounds (e.g. AgCl, AgI, AgBr)	self classification EPMF
Al	0.000	20.000	100.00	Al massive/Al compounds	not classified
As	0.000	10.000	100.00	As2O3 / AsO3	Annex VI
Au	6.000	81.000	100.00	Au compounds	not classified
B	0.000	0.000	100.00	Na2B4O7	1st ATP + self classification (eye irritation)
Ba	0.000	40.000	100.00	BaO2	Annex VI + self classification for ENV
Be	0.000	0.000	100.00	beryllium compounds with the exception of aluminium beryllium silicates, and with those specified elsewhere in Annex VI	Annex VI
Bi	0.000	15.000	100.00	Bi	not classified
C	0.000	0.000	100.00	inorganic C and C compounds	not classified
Ca	0.000	0.000	100.00	CaO	self classification IMA
Cd	0.000	10.000	100.00	CdCl2	Annex VI
Ce	0.000	0.000	100.00	Ce compounds	self classification
Cl	60.000	25.000	100.00	Cl / Cl compounds	not classified
Co	0.000	40.000	100.00	CoCl2	1st ATP
Cr	0.020	20.000	100.00	Cr2O3	self classification
Cu	0.020	45.000	100.00	Copper oxychloride	self classification
F	0.000	0.000	100.00	F	not classified

Fe	0.030	45.000	100.00	Fe/Fe compounds (e.g. FeS2)	not classified
Hg	0.000	0.000	100.00	inorganic compounds of mercury with the exception of mercuric sulphide and those specified elsewhere in Annex VI	Annex VI
Ir	0.020	0.000	100.00	Ir/Ir compounds	not classified
K	0.000	0.000	100.00	K/K compounds	not classified
La	0.000	0.000	100.00	LaCl3	self classification (ECHA dissemination website)
Li	0.000	0.000	100.00	Li	Annex VI
Mg	0.000	0.000	100.00	Mg/Mg compounds	not classified
Mn	0.000	0.000	100.00	MnO2	Annex VI
Mo	0.000	0.000	100.00	MoO3	1st ATP
N	0.000	15.000	100.00	NH3	Annex VI
Na	0.100	0.000	100.00	Na (other not classified compounds/species)	not classified
Nb	0.000	0.000	100.00	Nb/Nb compounds	not classified
Ni	0.020	20.000	100.00	NiCl2	
O	0.000	0.000	100.00	O	not classified
Os	0.000	0.000	100.00	Os/Os compounds	not classified
P	0.000	0.000	100.00	P/PO4	not classified
Pb	0.000	35.000	100.00	lead compounds with the exception of those specified elsewhere in Annex VI	Annex VI + self classification for carcinogenicity
Pd	25.000	20.000	100.00	Pd compounds (e.g. [Pd(NH3)4](OH)2)	self classification EPMF
Pt	2.000	20.000	100.00	Pt compounds with the exception of Pt compounds specified iin Annex VI	self classification EPMF
Re	0.000	0.000	100.00	Re compounds	not classified
Rh	0.100	20.000	100.00	Rh compounds	self classification
Ru	0.200	20.000	100.00	Ru compounds	self classification
S	0.050	0.000	100.00	H2SO4	Annex VI
Sb	0.000	10.000	100.00	Sb2O3	Annex VI
Se	0.300	35.000	100.00	Selenium compounds except cadmium sulphoselenide	Annex VI
Si	0.000	5.000	100.00	SiO2 non-crystalline	not classified
Sn	0.000	10.000	100.00	Sn compounds	self classification
Ta	0.000	0.000	100.00	Ta/Ta compounds	self classification
Te	0.000	35.000	100.00	Te compounds (self classification)	self classification
Ti	0.000	0.000	100.00	Ti (other not classified compounds, TiO2)	not classified
Tl	0.000	0.000	100.00	thallium compounds, with the exception of those specified elsewhere in Annex VI	Annex VI
V	0.000	0.000	100.00	V	not classified
W	0.000	0.000	100.00	W	not classified
Zn	0.000	10.000	100.00	ZnO	Annex VI
Zr	0.000	0.000	100.00	Zr/Zr compounds	not classified
	94.560				

Intermediate calculations Tier 1 human health

Classification Entry	Concentration (%)	Classification Acute Toxicity - oral	Acute toxicity oral: Conc/ATEi	Classification Acute Toxicity - dermal	Acute toxicity dermal: Conc/ATEi	Classification Acute Toxicity - inhalation	Acute toxicity inh: Conc/ATEi	Classification Skin corrosion/irritation	Classification eye damage/eye irritation
H2SO4	0.152934663963823500							Cat. 1A	
Cl / Cl compounds	60.0								
Selenium compounds except cadmium sulphoselenide	0.3000	Cat. 3; H301	0.003			Cat. 3; H331	0.6		
Fe/Fe compounds (e.g. FeS2)	0.03000								
Copper oxychloride	0.03360809492336260500		0.0000672161898467				0.0224053966156		
Na (other not classified compounds/species)	0.1000								
Ir/Ir compounds	0.02000								
NiCl2	0.0441617910142606500		0.000441617910143				0.0883235820285	Cat. 2	
Ru compounds	0.2000								
Au compounds	6.00								
Rh compounds	0.1000								
Ag compounds (e.g. AgCl, AgI, AgBr)	0.699999999999999900								
Pt compounds with the exception of Pt compounds specified iin Annex VI	2.00								
Pd compounds (e.g. [Pd(NH3)4](OH)2)	25.00	Cat. 4; H302	0.05						Cat. 2
Cr2O3	0.02923117162858681400								

Classification Entry	Concentration (%)	Classification Resp./Skin sensitisation	Classification mutagenicity	Classification carcinogenicity	Classification Reproductive toxicity	Classification STOT Single exposure	Classification STOT Repeated exposure	Classification Aspiration hazard	Classification Aquatic environment	Aquatic env acute: Conc x M-factor	Aquatic env chronic: Conc x M-factor
H2SO4	0.152934663963823500									0.00152934663964	0.00152934663964
Cl / Cl compounds	60.0									0.6	0.6
Selenium compounds except cadmium sulphoselenide	0.3000						STOT RE Cat. 2		Acute Chronic Cat. 1	0.03	0.003
Fe/Fe compounds (e.g. FeS2)	0.03000									0.0003	0.0003
Copper oxychloride	0.03360809492336260500								Acute Chronic Cat. 1	0.00336080949234	0.000336080949234
Na (other not classified compounds/species)	0.1000									0.001	0.001
Ir/Ir compounds	0.02000									0.0002	0.0002
NiCl2	0.0441617910142606500	Resp./Skin Sens. Cat. 1	Muta. Cat. 2	Cat. 1A			STOT RE Cat. 1***		Acute Chronic Cat. 1	0.000441617910143	0.000441617910143
Ru compounds	0.2000								Acute Chronic Cat. 1	0.002	0.002
Au compounds	6.00									0.06	0.06
Rh compounds	0.1000								Acute Chronic Cat. 1	0.001	0.001
Ag compounds (e.g. AgCl, AgI, AgBr)	0.699999999999999900								Acute Chronic Cat. 1	7	0.7
Pt compounds with the exception of Pt compounds specified iin Annex VI	2.00								Acute Chronic Cat. 1	0.2	0.2
Pd compounds (e.g. [Pd(NH3)4](OH)2)	25.00	Skin Sens. Cat. 1							Acute Chronic Cat. 1	2.5	2.5

Cr2O3	0.02923117162858681400								Chronic Cat. 4	0.000292311716286	0.000292311716286

CLP

Signal word: Warning

Endpoint	Classification	Major driver
Acute toxicity-oral	Cat. 4; H302	Selenium compounds except cadmium sulphoselenide,Pd compounds (e.g. [Pd(NH3)4](OH)2)
Acute toxicity-dermal	Not classified	/
Acute toxicity-inhalation	Not classified	/
Skin corrosion/irritation	Not classified	/
Serious eye damage/eye irritation	Not classified	/
Respiratory or skin sensitisation	Skin Sens. Cat. 1; H317	Pd compounds (e.g. [Pd(NH3)4](OH)2)
Germ cell mutagenicity	Not classified	/
Carcinogenicity	Not classified	/
Reproductive toxicity	Not classified	/
Specific target organ toxicity - single exposure	Not classified	/
Specific target organ toxicity - repeated exposure	Not classified	/
Aspiration hazard	Not classified	/
Hazardous to aquatic environment - ACUTE	Acute Cat. 1; H400	Selenium compounds except cadmium sulphoselenide,Ag compounds (e.g. AgCl, AgI, AgBr),Pt compounds with the exception of Pt compounds specified iin Annex VI,Pd compounds (e.g. [Pd(NH3)4](OH)2)
Hazardous to aquatic environment - CHRONIC	Chronic Cat. 1; H410	Ag compounds (e.g. AgCl, AgI, AgBr),Pt compounds with the exception of Pt compounds specified iin Annex VI,Pd compounds (e.g. [Pd(NH3)4](OH)2)

GHS (without EU SCL)

Signal word: Warning

Endpoint	Classification	Major driver
Acute toxicity-oral	Cat. 4; H302	Selenium compounds except cadmium sulphoselenide,Pd compounds (e.g. [Pd(NH3)4](OH)2)
Acute toxicity-dermal	Not classified	/
Acute toxicity-inhalation	Not classified	/
Skin corrosion/irritation	Cat. 3; H316	H2SO4,,,NiCl2
Serious eye damage/eye irritation	Cat. 2; H319	Pd compounds (e.g. [Pd(NH3)4](OH)2)
Respiratory or skin sensitisation	Skin Sens. Cat. 1; H317	Pd compounds (e.g. [Pd(NH3)4](OH)2)
Germ cell mutagenicity	Not classified	/
Carcinogenicity	Not classified	/
Reproductive toxicity	Not classified	/
Specific target organ toxicity - single exposure	Not classified	/
Specific target organ toxicity - repeated exposure	Not classified	/
Aspiration hazard	Not classified	/
Hazardous to aquatic environment - ACUTE	Acute Cat. 1; H400	Selenium compounds except cadmium sulphoselenide,Ag compounds (e.g. AgCl, AgI, AgBr),Pt compounds with the exception of Pt compounds specified iin Annex VI,Pd compounds (e.g. [Pd(NH3)4](OH)2)
Hazardous to aquatic environment - CHRONIC	Chronic Cat. 1; H410	Ag compounds (e.g. AgCl, AgI, AgBr),Pt compounds with the exception of Pt compounds specified iin Annex VI,Pd compounds (e.g. [Pd(NH3)4](OH)2)