

**GROUP 6.2 Spent electrolyte from gold electrolysis**

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(N.B.: The content of this ID Card may be adjusted as the Refiners Project develops)

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1. Identification of the group**Table 1.** Identification of the group

	Proposed by PMC Refiners Work Group	Pre-registered as
Name	Spent electrolyte, gold electrolysis	Slimes and Sludges, precious metal refining
EC number	Request new EC number at Registration (cf. section 6 below)	308-516-0
CAS number		98072-61-8
Description	Spent gold trichloride solution used in and resulting from gold electrolysis. This spent electrolyte mainly contains gold trichloride and HCl.	None

N.B.: The description proposed above will be further detailed by PMC for Registration purposes.

2. Synonyms (and/or commercial names)

- Reaction mass of gold trichloride/tetrachlorauric acid, platinum tetrachloride and chlorhydric acid (multiconstituent substance, gold electrolyte)
- Impure gold trichloride

3. Substances that are similar or can be considered as the same

None

4. Typical composition**Table 2.** Typical composition

Type	Name of the element	Symbol	Species present (one line per species)	Most recent classification of species	Source of classification	Typical concentration range
Precious metals	Gold	Au	AuCl ₄	None	GHS/CLP	10-50
	Platinum Group Metals	PGM	PtCl ₄ or PtCl ₂	None	GHS/CLP	5-10 or 3,5-7

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Type	Name of the element	Symbol	Species present (one line per)	Most recent classification of species	Source of classification	Typical concentration range
		PGM	PdCl ₄ or PdCl ₂	None	GHS/CLP	0-5 or 0-4
		PGM	Other PGM chlorides	None	GHS/CLP	0-5
Other constituents	Chlorine	Cl	HCl	C; R34 - Xi; R37	GHS/CLP	0-35
	Water	H ₂ O	Water	None	GHS/CLP	5-90

The composition given above represents the typical elemental content available to the Members of the Consortium by 7 of December 2009. This typical content represents the majority of the Spent Gold Electrolyte that is placed on the EEA market.

Concentration ranges outside the ones given above do not exclude sameness and are usually referred to as atypical or exceptional situations. Each potential registrant is responsible for performing its own elemental analysis (PMC will specify preferred method in due course).

5. Classification (additive - based on composition provided in table 2 above)

To be completed

6. Basic physico-chemical characteristics and properties

Table 3. List of physico-chemical characteristics of the substance to facilitate sameness confirmation

Characteristic	Description/value	Comment
Physical state (solid, liquid, gaseous)		
Physical form (Aerosol, Compact, Crystalline, Dispersion, Fibre, Filaments, Flakes, Liquified gas, Particulates, Paste, Pellets, Powder, Suspension, Viscous, Refrigerated Liquid, Other)		
Typical particle size range(s) (D10, D50, D90 in nm, µm or mm)		
Colour		
Odour (Ammonia-like, Biting, Characteristic of sulfur-containing compounds, Characteristic of aromatic compounds, Faint, Garlic-like, Pungent, Slight, Sweetish, Odourless, Other)		
Substance type (Element, Inorganic, Natural substance, Organic, Organometallic, Petroleum Product)		
Water solubility		
Relative density (g/cm ³) or specific gravity		
Specific surface area (m ² /g)		

7. Lead Registrant



Aurubis volunteers to be the Lead Registrant for this intermediate.

8. REACH Strategy

Table 4. REACH strategy for the group (basis for REACH Registration preparation)

Subject	Description	Comment
SIEF	New/sub-SIEF	Requires sameness discussion in pre-SIEF, split “Slimes and sludges, precious metal refining” SIEF, creating an <i>ad hoc</i> SIEF, and linking registration under a new EC number with previous EC number through pre-registration number. The new EC number will be requested in parallel with the registration dossier submission, and not before.
REACH category	UVCB	Can contain more than 80% of gold trichloride ((EC n°: 236-623-1; CAS n°: 13453-07-1) and be considered as “impure” gold trichloride (cf. PMC proposed strategy for impure compounds).
Intermediate status	On-site	No Member of the PMC has declared this material to be transported. At least one Member of the PM has declared this material on-site > 100 t/a. This will be considered as the reference to produce the Dossier.
Tonnage band	100-1000	
Information requirements	Available	
(Likely) Classification	None	Depends on confirmation of composition/species.
Resulting registration deadline	2013	
Other		