



GROUP 7. Flue dust
Version 22 January 2010

(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	Flue dust, precious metal refining	Flue dust, precious metal refining	Flue dust, silver-refining
EC number	308-496-3	308-496-3	308-276-7
CAS number	98072-44-7	98072-44-7	97926-57-3
Description	Dust resulting from high temperature treatments and process applied on primary and secondary feeds with high and low precious metal content. Flue dust contains metal oxides, hydroxides, and chlorides, and some quantities of precious metals.	The dust obtained from the refining of materials from primary and secondary sources containing gold, iridium, osmium, palladium, platinum, rhenium, ruthenium and silver. Composed primarily of lead with traces of other metals.	Product resulting from the smelting, refining and/or use of silver and its alloys obtained from primary and secondary sources and including recycled plant intermediates. Consists primarily of oxides and halide compounds of silver and lead and may contain other residual non-ferrous metals and their compounds.

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

2. Synonyms (and/or commercial names)

None

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

Although flue dusts resulting from other metals refining processes may be very similar to precious metals flue dust, they are not listed here as they are covered by other consortia and must hence, not be registered using the same information or in the same Registration Dossier.

Table 2. Synonyms and similar/same substances belonging to the group

Name	EC number	CAS number	Description (EC inventory)
Flue dust, silver-refining	308-276-7	97926-57-3	Product resulting from the smelting, refining and/or use of silver and its alloys



Name	EC number	CAS number	Description (EC inventory)
			obtained from primary and secondary sources and including recycled plant intermediates. Consists primarily of oxides and halide compounds of silver and lead and may contain other residual non-ferrous metals and their compounds.

N.B.: No registration dossier will be prepared by the PMC for the materials listed in the above table. PMC Members are recommended to register their material using the identifiers provided in Table 1, for which a dossier will be prepared by the PMC.

4. Usual composition

Table 3. Usual composition

Type	Name of the element	Symbol	Species present	Most recent classification of species	Source of classification	Usual concentration range (%)	
Precious metals	Silver	Ag	Species?			0-35	
	Gold	Au	Species?			0-1	
	Platinum Group Metals	PGM	Species?			0-30	
Other metals	Aluminium	Al	Al ₂ O ₃	Not classified	CLP/GHS	0-10	
	Antimony	Sb	Species?			0-3	
	Arsenic	As	Species?			0-2,5	
	Bismuth	Bi	Species?			0-4	
					Carc. Cat. 2; R45 - Muta. Cat. 3; R68 - Repr. Cat. 3; R62-63 - T; R48/23/25 - T+; R26 - N; R50-53		0-2,5
	Cadmium	Cd	Species?			0-2,5	
	Calcium	Ca	CaO	Not classified	CLP/GHS	0-25	
	Cerium	Ce	Species?			0-3	
	Chromium	Cr	Cr ₂ O ₃	Not classified	CLP/GHS	0-1	
	Copper	Cu	Species?			0-20	
					Repr. Cat. 1; R61 - Repr. Cat. 3; R62 - Xn; R20/22 - R33 - N; R50-53	CLP/GHS	0-50
	Lead	Pb	PbO			0-50	
	Iron	Fe	Species?			0-30	
	Nickel	Ni	Species?			0-2	
	Potassium	K	Species?			0-5	
	Selenium	Se	Species?			0-20	
	Silicon	Si	SiO ₂	Not classified	CLP/GHS	0-25	
Sodium	Na	Species?			0-15		
Tellurium	Te	Species?			0-10		
Tin	Sn	Species?			0-10		
Zinc	Zn	ZnO		N; R50-53	CLP/GHS	0-10	
Other constituents	Chlorine	Cl	Species?			0-30	
	Fluorine	F	Species?			0-0,5	



The composition given above represents the usual elemental content available to the Members of the Consortium by 7 of December 2009. This usual content represents the majority of the Precious Metals Flue Dust that is placed on the EEA market.

Concentration ranges outside the ones given above do not exclude sameness and are usually referred to as unusual or exceptional situations. For instance, concentrations higher than 30% of antimony, 15% of bismuth, 85% of lead, 35% of selenium, and 30% of zinc have been declared by some Members of the Consortium. 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 4. 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)		
Usual 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

Johnson Matthey volunteers to be the Lead Registrant for this intermediate.

8. REACH Strategy

Table 5. REACH strategy for the group (basis for REACH Registration preparation)



Subject	Description	Comment
SIEF	As pre-registered	
REACH category	UVCB	
Intermediate status	Transported	At least one Member of the PMC has declared this material as transported > 100 t/a. This will be considered as the reference to produce the Dossier as other forms (on-site and/or below 100 t/a are covered by the requirements of transported > 100 t/a).
Tonnage band	100-1000	
Information requirements	Available	
(Likely) Classification	Carc. cat. 1, Muta. cat. 3, Repr. cat. 3, R50-53	Depends on confirmation of composition/species.
Resulting registration deadline	2010	
Other		