



GROUP 2. Precious metal matte
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 | Original (in EC inventory) |
|-------------|---|----------------------------|
| Name | Matte, precious metal | Matte, precious metal |
| EC number | 308-506-6 | 308-506-6 |
| CAS number | 98072-52-7 | 98072-52-7 |
| Description | Substance resulting from the smelting of precious metals and its alloys obtained from primary and secondary sources and including recycled plant intermediates. Precious metal matte is composed primarily of base metal sulphides containing precious metals and may contain other residual non-ferrous metals and their compounds. | None |

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 mattes resulting from other metals refining processes may be very similar to precious metals matte, 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.

4. Usual composition

Table 2. Usual composition

| Type | Name of the element | Symbol | Species present (one line per species) | Most recent classification of species | Source of classification | Usual concentration range (%) |
|----------|---------------------|--------|---|---------------------------------------|--------------------------|-------------------------------|
| Precious | Silver | Ag | Sulphides | None | GHS/CLP | 0-50 |



| Type | Name of the element | Symbol | Species present (one line per) | Most recent classification of species | Source of classification | Usual concentration |
|--------------|---------------------|-----------|-----------------------------------|--|--------------------------|---------------------|
| metals | | | | | | |
| | Gold | Au | Metallic? Sulphides? | None | GHS/CLP | 0-10 |
| | Iridium | Ir | Sulphides | None | GHS/CLP | 0-10 |
| | Palladium | Pd | Sulphides | None | GHS/CLP | 0-10 |
| | Platinum | Pt | Sulphides | None | GHS/CLP | 0-10 |
| | Rhodium | Rh | Sulphides | None | GHS/CLP | 0-10 |
| Ruthenium | Ru | Sulphides | None | GHS/CLP | 0-10 | |
| Other metals | Aluminium | Al | Al ₂ O ₃ | None | GHS/CLP | 0-2 |
| | Antimony | Sb | Sulphide? | | | 0-5 |
| | Arsenic | As | As ₂ O ₃ ? | Carc. Cat. 1; R45; T+; R28; C; R34; N; R50-53 | GHS/CLP | 0-5 |
| | | | As ₂ O ₅ ? | Carc. Cat. 1; R45; T; R23/25; N; R50-53 | GHS/CLP | |
| | Calcium | Ca | CaO | Not classified | GHS/CLP | 0-3 |
| | Chromium | Cr | Cr ₂ O ₃ | Not classified | GHS/CLP | 0-5 |
| | Cobalt | Co | CoS | R43 - N; R50-53 | GHS/CLP | 1-12 |
| | Copper | Cu | CuS | Not classified | GHS/CLP | 0-55 |
| | Lead | Pb | Sulphide | Repr. Cat. 1; R61 - Repr. Cat. 3; R62 - Xn; R20/22 - R33 - N; R50-53 | GHS/CLP | 0-18 |
| | Iron | Fe | Sulphides and bound to spinels | Not classified | GHS/CLP | 0-35 |
| | Magnesium | Mg | MgO | Not classified | GHS/CLP | 0-2 |
| | Nickel | Ni | Ni ₃ S ₂ | Carc. Cat. 1; R49; R43; N; R50-53 | GHS/CLP | 0-55 |
| | Tellurium | Te | Metallic? | Not classified | GHS/CLP | 0-11 |
| | Tin | Sn | Sulphide? | Not classified | GHS/CLP | 0-4 |

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 Matte 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. 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, | | |



| Characteristic | Description/value | Comment |
|--|-------------------|---------|
| 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, Organo-metallic, Petroleum Product) | | |
| Water solubility | | |
| Relative density (g/cm ³) or specific gravity | | |
| Specific surface area (m ² /g) | | |

7. Lead Registrant

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