Chairman: *Dave Boyd* (Johnson Matthey)

**6 October 2011, 09:30 – 12:30 CET**

## List of participants

| | | |
|---|---|---|
| Sandra Allen | RSA | United Kingdom |
| Caroline Braibant | EPMF | Belgium |
| Dave Boyd | Johnson Matthey | United Kingdom |
| Pete Watts | BIBRA | United Kingdom |
| Mark Raffray | Johnson Matthey | United Kingdom |
| Klaus Rothenbacher | EPMF | Belgium |
| Ed Stutt | WCA | United Kingdom |
| Rüdiger Thiele | Heraeus | Germany |
| Steven Verberckmoes | Umicore | Belgium |
| Paul Whitehead | WCA | United Kingdom |
| Roland Winde | Umicore | Germany |

## Minutes

**1. Welcome and introduction *(DB)***

**1.1.** Approval of the Agenda

The agenda (Annex 1) was approved.

**1.2.** Approval of the minutes of the last meeting

The minutes of the last meeting were approved.

**2. PGM project scope**

**2.1.** Status of RhCl3 and RuCl3 (anh) and Diamminedichloropalladium (cis/trans)

RhCl3 and RuCl3 are only available in their hydrated form; the anhydrous form is not produced and thus not available for testing. The Reach dossiers will therefore be based on the hydrated forms and will not cover the anhydrous forms. This was agreed by the PEG.

**Action: WCA to reflect the change in substance identify in the respective IUCLID files**

Diamminedichloropalladium was confirmed to be a mixture of different stereoisomers (cis/trans). The commercial product is an equilibrium mixture primarily consisting of the trans isomer. Three different CAS numbers are available for Diamminedichloropalladium.

**Actions:**

a) **PMC to check substance identification requirements for Diammine-dichloropalladium in relevant ECHA Guidance and revert with way forward/options/recommendations regarding several CAS numbers and associated registration needs.**

**2.2** Karstedt concentrate

The PEG agreed with the proposed way forward on the Karstedt concentrate

**Action: PMC to formalise collaboration with Reconsile consortium**

Once a formal collaboration is established: WCA to meet with Reconsile consultants (PFA) and recommend way forward)

**Action: PMC to circulate reference to review paper on Karstedt concentrate**

2.3 Other

- Palladium dioxide cannot be isolated for testing and thus the respective test tests are waived because of non-availability of the test material

- New data has become available on Platinum tetraammine acetate for potential read across to other Pt-tetraamines.

**Action: WCA and BIBRA to evaluate new studies and**

a) **Advise PEG/PMC asap if changes to the testing programme will be required**
b) **Update the Pt- ITS report accordingly. This can be done by addendum, along with the ITS update with the enabling tests data**

## 3. Enabling Tests and phys.-chem. tests

### 3.1. Oxidising properties

Tests are ongoing. The tests were slightly delayed due to the fact that

- Dipotassium tetraoxoruthenate could not be obtained in pure form for testing. It was agreed to test Dipotassium tetraoxoosmate instead and read across.
- The Ruthenium IV oxide sample arrived late

The tests should be completed in November.

### 3.2. Water solubility tests

Some additional tests on water solubility will be needed. The presented strategy (see supporting material, slides PMC), a combination of standard shake-flask tests, non-standard shake-flask tests and TD tests on 2 substances (PdO hyd. and Pd(OH)2) was agreed.

Publication of results in peer-reviewed journal: discussion on this point has been put on hold until the new data has been generated.

**Action: PMC to bilaterally discuss publication policy with companies that had measured the water solubility of their samples internally.**

### 3.3. Dustiness tests *(PMC)*

The tests on 9 materials at DMT have been completed and test reports were circulated. The test reports did not include the mass median aerodynamic diameter and the GSD, which will be necessary for the subsequent lung deposition modelling (MMPD).

**Action: PMC to ask DMT to calculate MMAD and GSD (after 10 October)**

WCA will then proceed to carry out the lung deposition modelling (MMPD).

It was originally foreseen to estimate the MMAD of substances that had particle size distribution data (PSD) available (Pt, Pd, Rh, Ru, PdO, PtCl2), however it was recognized that this process would be fraught with uncertainties and would moreover significantly overestimate the dustiness of the materials. PMC recommended to additionally generate dustiness on these substances.

**Action: PMC to initiate dustiness measurements of additional 6 substances at DMT**

### 3.4. Bio-elution test

The project scope was briefly reviewed and confirmed (detailed scope, s. supporting material). A contract is currently being drawn up with the testing lab (CIMM).

The tests at CIMM will cover the 4 “standard” media and will not cover PBS (“artificial blood”). However the opportunities for using data generated on “artificial blood” are limited and will likely not be needed for our substances anyway. The PEG was happy with this scope.

The following change to the scope was proposed: dipotassium hexachloropalladate and diammonium hexachloropalladate had been included in the initial scope since no data on their water solubility was available. However, indicative water solubilities have been estimated for both substances to be in the single-digit g/l range. This would make bio-elution testing unnecessary. It was recognized that the above indicative water solubilities are very rough estimates only but were considered sufficient to conclude that bio-elution testing is not necessary

**Action: PMC/WCA to remove Dipotassium hexachloropalladate and Diammonium hexachloropalladate from scope of bio-elution tests**

Some practicalities need addressing before the tests can start: the test materials will need to be prepared in specific particle size distributions that are required by the test protocols and the resulting surface area will have to be determined. There are few labs that are in a position to do this; PMC and WCA are addressing this issue directly and are in contact with 2 CROs on that.

**Action: WCA to revert with confirmed timeline for bio-elution test, including sample preparation (ideally performed at same location as bio-elution test itself)**

**3.5.** In-vitro irritation testing

This point was moved to agenda point 6.

**4. ITS**

**4.1.** Review/agree reports

The PEG has reviewed the ITS reports and provided comments to PMC. Overall, the PEG was happy with the reports, except some editorial comments and a few specific comments. It was agreed to discuss the specific comment under agenda points 5 and 6.

**Action: PMC to collate comments and forward to WCA by 14 October**

WCA agreed to consider the comments and revise the ITS reports as appropriate.

**Action: WCA to revise reports based on PEG/PMC comments and issue final (tier 1) ITS reports.**

**4.2.** Updated ITS reports

**4.2.1.** As agreed earlier, any significant changes to the ITS will be addressed via separate addendums.

**4.2.2.** New data on Platinum tetraammine acetate has become available and will need to considered in the Pt ITS. (See also agenda point 2.3.) The new data will be included in the next update to the ITS (together with enabling test data (point 4.2.1). Since the data might have an impact on the Pt test programme, WCA/BIBRA agreed to review the data as a matter of priority and advice PMC ASAP if any changes to the scope will be necessary.

**Actions (cf. agenda point 2.3): WCA and BIBRA to evaluate new studies and**

**a) Advise PEG/PMC asap if changes to the testing programme will be required**

**b) Update the Pt- ITS report accordingly. This can be done by addendum, along with the ITS update with the enabling tests data**

**5.** Ecotox testing

**5.1.** Proposed testing

The proposed testing programmed was presented (slides WCA) and agreed. The testing scope on the following point was clarified:

Read-across strategy for hexachloropalladates: It was agreed to carry out a daphnia test on both diammonium- and dipotassium- hexachloropalladate and then decide on which substance to conduct the other ecotox tests on. The results would then be used for read across to the other substance. Both substances are in the same non-SCC tonnage band and thus have the same data requirements.
***Action: WCA to propose CROs and get quotes for proposed ecotox tests***

**6.** Mammalian tox testing

**6.1.** Genotoxicity

The proposed testing strategy was presented (slides WCA). Some technical points require further detailed discussion before the scope can be finalised, e.g., the potential confounding influence of extreme pH on test results, (apparently) conflicting study results on Rh (III) compounds, etc. It was agreed to discuss the scope with an independent expert (David Kirkland) before finalizing the testing programme.

**Actions:**

- **WCA/BIBRA to summarize genotoxicity issues/questions and circulate to PEG**
- **PMC to provide generic confidentiality agreement template to be used with external experts and peer reviewers to WCA**
- **WCA to set up confidentiality agreement with D. Kirkland**
- **WCA to contact D. Kirkland to request availability/conditions/modalities to provide expert opinion (D. Kirkland to sign confidentiality agreement with PMC, contract and invoices to be addressed to and filed by PMC directly)**
- **WCA/BIBRA to arrange meeting with D. Kirkland, concerned PEG members and PMC to finalise recommendations**

**6.2.** Sensitisation

The proposed testing scope was presented by WCA (WCA slides). The scope was agreed.

**6.3.** Irritation (moved from agenda point 3.5)

The proposed testing scope was presented by WCA (WCA slides). The scope was agreed. Since the selected testing lab (LAB) is not able to carry out the BCOP test required for Tetraammineplatinum dinitrate, this test will be done at Harlan. It was agreed (for simplicity/timing) to conduct a potential in-vivo irritation test on this substance also at Harlan, should this be necessary.

**6.4.** Acute toxicity

Reach requires testing a second route of exposure in acute toxicity testing for substances > 10 tpa (Annex VIII). In order to be able to decide on the second route of exposure, several prerequisites will need to be in place

- Data on dustiness (is inhalation relevant at all?)
- Bio-elution (what is the predicted bioavailability characteristic in artificial perspiration fluid?)
- Irritation
- Practicalities (can stable testing atmosphere be created?)

This information will be generated in the testing programme, but it will be important to ensure this data is generated in a timely fashion for substances that require registration in 2013 (s. agenda point 7)

## 7. Next steps, timing

### 7.1. Review of overall timeline

Three substances will require registration in 2013:

| | Highest tonnage | Deadline | Dossier |
|---|---|---|---|
| Diammonium hexachloropalladate *(Intermediate)* | • SCC: 100-1000 tpa<br>• Non-SCC: 10-100 tpa | • 2013<br>• 2018 | • Available information<br>• Full dossier |
| Diammonium hexachloroplatinate *(Intermediate)* | • SCC: 100-1000 tpa<br>• Non-SCC: 10-100 tpa | • 2013<br>• 2018 | • Available information<br>• Full dossier |
| Diammine dichloropalladium *(Substance)* | • 100-1000 tpa | • **2013** | • **Full dossier** |

PMC reminded the member companies that they will need robust documentation of strictly controlled conditions (SCC). It is the responsibility of the concerned company(ies) to demonstrate that. WCA and PMC have to assume SCC compliance if this is reported by the companies.

### 7.2. Registration of substances in 100-1000 tpa band (2013 deadline)

Two slides were presented summarizing the critical timing related to mammalian tox testing: under normal circumstances, it should take at least 66 weeks to complete the mammalian tox testing. This assumes a best-case scenario, i.e., no slack time, no need to repeat any test, and no time for reporting.

Since for the 2013 deadline even this best-case time is not available, possibilities for shortening the time frame were discussed:

- MMPD calculations can be finalised by mid-November, and will allow a decision whether or not an acute inhalation test will be necessary
- Bio-elution testing will not be necessary for the fast track substances (cf bio-elution proposal)
- In case an acute inhalation study will be required, WCA and BIBRA recommended to conduct it in parallel to the acute oral study.

It was agreed to proceed Diamminedichloropalladium through a fast-track testing, as suggested above. PMC will make all efforts to complete the testing in time. In case, due to unforeseen circumstances, the testing will not be fully completed by the deadline, a tentative DNEL will have to be developed, which will then be used in the risk characterization. The PEG agreed with this approach.

For the two intermediates (Diammonium hexachloropalladate and diammonium hexachloroplatinate) it was decided to progress these along with the main body of PGM test work ("normal track") and thereby report all available information generated by the time the dossier is submitted (in support of the 2013 deadline). This may necessitate update of these dossiers at a later stage.