



Additional questions/clarifications requests on Phase I reports

GENERAL

1. In general, do WCA and Bibra have the information on the state of each substance (solid/liquid) and in what form it is manufactured (granulate/powder/ingot)?

A: We have not yet been provided with information on the state of each substance and in what form it is manufactured. The data tables we submitted as an output from phase I identify this as a data gap. Members of the PMC will need to provide this information to us in order for us to complete phase II.

2. Why are e.g. calcium perrhenate and dirhenium heptasulphite listed as “other” if those are both intermediates? Could you please let me know the date stated on the last indicative list you received from us? I could provide you with the newest we have.

A: Calcium perrhenate and dirhenium heptasulphite were added to the list of rhenium substances for inclusion in the project after the initial list of substances was provided. We have now updated our files and the outputs from phase I to reflect that these substances should be intermediates.

RHENIUM

I. PHYS-CHEM

Annex VII

1. Boiling point - yes, this end point doesn't need to be provided for certain kind of solids (melt above 300 °C or decompose before boiling), but if there is no info on melting point how the boiling point can be omitted?

A: The endpoint 'boiling point' was included in the files 'CAS number_PMC list.xls' that detail the results of the literature search. We have added boiling point to the data gap matrix files together with the comment 'derogation anticipated' to make it clearer that we will look at this endpoint in phase II to determine whether or not it can be waived for each substance.

2. Vapour pressure - the vapour pressure gives an indication of the probability for the phase transitions liquid/gas and solid/gas. Again, it can be skipped knowing some information on melting point, but if no melting point is known?

A: The endpoint 'vapour pressure' was included in the files 'CAS number_PMC list.xls' that detail the results of the literature search. We have added vapour pressure to the data gap matrix files together with the comment 'derogation anticipated' to make it clearer that we will look at this endpoint in phase II to determine whether or not it can be waived for each substance.

3. Surface tension - if the water solubility is below 1 mg/l at 20 °C the test does not need to be conducted. Can we predict something from the structure and waive the test based on that



- do any of the rhenium compounds have a probability to be surfactant (hydrophilic/lipophilic part)? The only candidate to be surface active I can think of is ion-exchange polymer.

A: We anticipate that the endpoint surface tension will not be required for many of the compounds included in this project. We have added a comment to the data gap matrix files to clarify this point. If members of the PMC have information relevant to this endpoint then they should supply this to us as soon as possible as it will be needed in phase II.

4. Water solubility - where do these data originate from?

A: It is not clear what this question refers to. No references on the water solubility of rhenium were identified during the literature search so these cells are left blank in the data gap matrix. WCA/BIBRA would be very pleased to receive any relevant data form PMC.

5. Why would you like to waive “hydrolysis” and again based on what?

A: The endpoint hydrolysis will not be particularly relevant to many of the compounds included in this project. We have amended the data gap matrix and included the comment ‘consideration of the stability of different oxidation states in environmental media may be more relevant than a hydrolysis study’ in order to clarify this point.

6. If the tests for water solubility need to be performed again we should be careful interpreting the results. Sometimes the solubility and hydrolysis can be confused; maybe the hydrolysis test can be done at the same time as the solubility test. Hydrolysis study as a function of pH on the other hand doesn’t need to be conducted for highly insoluble materials...

A: We agree with your comment, but this will relate to later phases of this project.

7. Flammability - why only for liquids? Some of the products come in the form of powder and flammability is relevant endpoint for those.

A: When conducting the literature search and relevancy screening we looked for all flammability references, not just those related to liquids. We have removed the word liquid from the data gap matrix to clarify this point.

8. Self-ignition temperature - again, based on what knowledge was this endpoint omitted? (melting point < 160 °C or if preliminary results exclude self-heating of the substance up to 400 °C).

A: The endpoint self ignition temperature was included in the files ‘CAS number_PMC list.xls’ that detail the results of the literature search. We have added self ignition temperature to the data gap matrix files together with the comment ‘derogation anticipated’ to make it clearer that we will look at this endpoint in phase II to determine whether or not it can be waived for each substance.

9. Oxidising properties - normally it should be possible to waive the test based on the structure. I don’t know how good/valid are the structural information WCA/Birbra have on our substances, if any... (Ammonium perrhenate - Sigma Aldrich, SDS: Emergency overview - Oxidising).



A: We agree that for many of the compounds we should be able to justify a data waiver for the endpoint oxidising properties. If PMC members have information that would help then they should provide this to us as soon as possible as it will be needed in phase II.

Annex IX

1. Dissociation constant - any reason for omitting the endpoint? (concerns e.g. ammonium perrhenate)?

A: As none of the rhenium compounds are to be registered above 100 tonnes we have not included these endpoints in the data gap matrix. However, these endpoints were included in the literature searches, and if data were found they will be included in phase II (regardless of tonnage band).

2. Viscosity - can be omitted if the substance is not liquid, but I suppose, for example perrhenic acid is a liquid.

A: As above, as none of the rhenium compounds are to be registered above 100 tonnes we have not included these endpoints in the data gap matrix. However, these endpoints were included in the literature searches, and if data were found they will be included in phase II (regardless of tonnage band).

II. TOX

Annex VII

1. Was the search made for skin corrosion? (Can help to address skin irritation, skin sensitisation, acute toxicity-oral route and skin irritation & eye irritation in vivo from Annex VIII....). (E.g. Perrhenic acid is corrosive...)

A: We can confirm that skin corrosion was included in the literature search and relevancy screening. We have updated the data gap matrix files so that this endpoint reads 'skin irritation or skin corrosion in vitro'.

PGM's

The same questions as for Re apply to PGM's concerning the endpoints chosen/omitted. Probably we should consider some additional endpoints for the molecules containing both metal and organic part, e.g. Bis(dibenzylideneacetone)palladium (Pd oxidation state = 0), CAS 32005-36-0. In such case, is water/n-octanol partition coefficient relevant endpoint? Considering such substances how will it affect a choice for ecotox endpoints (e.g. biotic degradation)?

A: We agree that some additional endpoints will need to be considered when looking at compounds that contain both metal and organic parts compared to inorganic substances. Until we have gathered and reviewed the information that allows us to determine how these substances will behave in environmental media we cannot definitively determine which endpoints are relevant and which may be waived. At this stage we can only give an indication of the endpoints which may be covered by information located during the literature searches and which endpoints may not be required.



The same applies for example for:

Substance	CAS
Platinum, 1,3-diethenyl-1,1,3,3-tetramethyldisiloxane complexes / Karstedt concentrate	68478-92-2
Dichlorobis(triphenylphosphine)palladium	13965-03-2
Bis(acetylacetonate) palladium (II)	14024-61-4
Palladium(II) acetate	3375-31-3
Tetrakis(triphenylphosphine)palladium	14221-01-3
Di- μ -chlorobis((1,2,5,6-eta)cycloocta-1,5-diene)diiridium	12112-67-3
Carbonyl(pentane-2,4-dionato-O,O')(triphenylphosphine)rhodium	25470-96-6
Carbonylhydrotris(triphenylphosphine)rhodium	17185-29-4
Dicarbonyl(pentane-2,4-dionato-O,O')rhodium	14874-82-9
Di- μ -chloro-bis(hapto-1,5-cyclooctadiene)dirhodium(I)	12092-47-6
Tris(triphenylphosphine) rhodium (I) chloride	14694-95-2
Hexakis[μ -(acetato-O,O')]- μ 3-oxo-triangulo-triruthenium acetate / Ruthenium acetate	55466-76-7