

Rhenium Working Group Call 28 September 2012

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ITS status summary

- All regulatory studies completed
 - » OECD TG422 data evaluation and report on APR awaited (see next slides)
- Decision on APR acute oral toxicity study required (see later slide)
- Assumed that all 1 -10 tpa substances are not compliant with Annex III, & therefore do not require (eco)toxicology assessment
 - » If Annex III compliant, then data to be read across from eg APR
 - » Enabling studies on rhenium and PPR completed

OECD TG422 study for ammonium perrhenate

- In-life part of the study complete
- Preliminary raw data received from Charles River
- Highlights:
 - » Dose levels: 0, 110, 330 or 1000 mg/kg/day
 - » Clinical signs seen in high dose males and females, & possibly some intermediate dose males
 - » Slight adverse effect on high dose male bodyweights and food intake, and high dose females during lactation only
 - » Clin. Path: Reductions in red cell parameters, decrease in urea & CPK, glucose elevation. All in high dose animals

OECD TG422 study for ammonium perrhenate

- Highlights contd:
 - » Increased thyroid weights in high dose males and females
 - » Slight reduction in high dose male and female fertility and gestation indices; reduction in high dose live pups numbers at day 4 pp
- Draft histopathology report may be available just prior to today's audio
- Provisional conclusions:
 - » Adverse effects seen at 1000 mg/kg/day
 - » Possibly some minor effects at 330 mg/kg/day
 - » Possible NOAEL 110 mg/kg/day

OECD TG422 study for ammonium perrhenate

- Provisional conclusions contd:
 - » Data requires more in-depth review before any classification implications (STOT, repro, etc.) can be considered. From a reproductive perspective, the OECD TG422 study is a screening study and does not necessarily evaluate the parameters in depth
- Unaudited draft report expected early November, audited draft end January 2013

Literature search

- Clinical symptoms were seen in the high dose group from day 10 in the OECD TG422 study. Symptom severity decreased with repeated exposure
- A literature search was requested to determine if similar effects have been seen previously for rhenium compounds
- Three papers were identified, but none were considered to be significantly relevant

Next steps: Acute toxicity study on APR?

- Concerns over reliability of acute toxicity study (Toxicol Laboratories 1978) as plant oil was used as the vehicle and only limited number of animals
- Charles River determined that corn oil was not a satisfactory vehicle in the OECD TG422 study
- Options:
 - Conduct a new study
 - Use a weight of evidence argument to avoid repetition of the study

Next steps: Acute toxicity study on APR contd?

- Acute oral toxicity of APR likely to be low since:
 - » Dirhenium heptaoxide oral LD₅₀ >500 and <2000 mg/kg; 4/6 rats died at 2000 mg/kg. This substance is corrosive (and relevant signs of corrosivity seen in decedents)
 - » APR OECD TG422 7-day dose range finding study – no mortalities at 1000 mg/kg/day
 - » APR not irritant
- Conclusion: reasonable case for WoE argument that study does not need to be repeated and no acute classification for APR

Use questionnaire

- A number of completed use questionnaires have been received
- Some uses have been identified for all rhenium substances except dirhenium heptasulphide
- If any companies have not yet returned the use questionnaire please could these be completed ASAP and returned to: info@epmf.be

IUCLID 5 preparation

- IUCLID records are near-complete
- Endpoint records will be completed as soon as the remaining test reports are received
- Once all use questionnaires are received, use data will be entered into IUCLID section 3.5
- Timelines will depend on receipt of the final study report for the OECD TG422 test and the decision on acute oral toxicity study

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