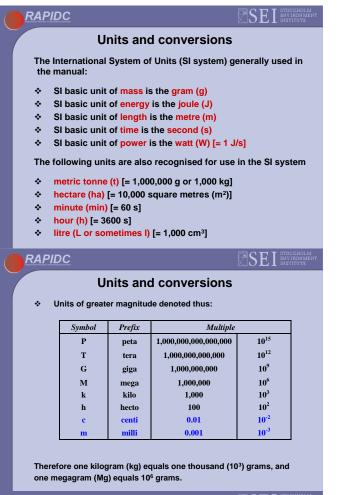
Session 2 exercises: Units and conversions and use



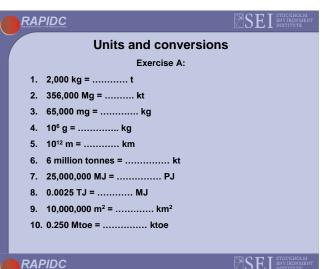
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Units and conversions

Exceptions to use of SI units in the APINA manual:

- Fuel consumption activity data as reported by the International ŵ Energy Agency (IEA) Balances are expressed as kilotonnes oil equivalent (ktoe) where 1 toe = 10^7 kcal (kilocalories). The APINA workbook therefore allows for fuel consumption data to be input as ktoe (as well as in tonnes (t) or terajoules (TJ)).
- Similarly, Net Calorific Values (NCVs) for fuels given by the IEA are expressed as tonnes oil equivalent per tonne (toe/t). Therefore the APINA workbook is also set up to allow NCVs to be input in these units.

of Excel spreadsheet



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Units and conversions

Exercise B:

- 1. 1 ha = m²
- 2. 0.75 km² = ha
- 3. 250 kg/kt = g/kg
- 4. 50 g/kg = %
- 5. 45 t/TJ = kg MJ⁻¹
- 6. 150 ktoe = TJ (Note: 1 Mtoe = 4.1868 x 10⁴ TJ)
- 7. 150 toe t⁻¹ = TJ t⁻¹
- 8. 80 g SO₂ /kg = kg SO₂ t⁻¹
- 9. 50 g NMVOC per litre =kg NMVOC /hl (Note: hl = hectolitre)

₽SEI

10. 2,000,000 m³ /week = x 10⁶ m³ yr⁻¹

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Exercise C

- practical session: getting to know the workbook
- Using an Excel spread sheet
- * Structure of APINA emissions inventory preparation workbook: division into worksheets.
 - navigation menus,
 - freeze panes and scrolling in worksheets
 - general data input areas (white),
 - general data output areas (green),
 - understanding the formulae used,
 - final summary sheet
 - recording tables for reference source(s) of activity data and emission factors if defaults not used (transparency of data)