

# Method development for assessment of chemicals in complex waste materials

Version 1

New methods and assessment frameworks are required to advance the knowledge of chemical management in the circular economy.



## Method development for assessment of chemicals in complex waste materials - a case study in tyres

Major components at time of manufacture

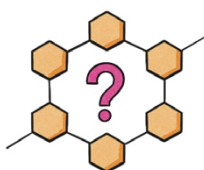


Natural rubber **14%**  
Synthetic rubber **27%**  
Fabric, fillers, antioxidants, antiozonants, additives **16%**  
Carbon black **28%**  
Steel wire **14%**

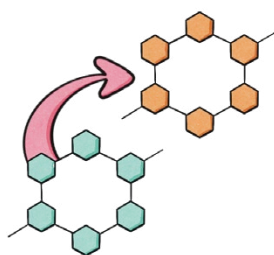
Chemical profiles that change while tyre is in use and managed at end of life



Known chemicals



Unknown chemicals

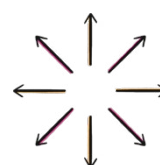


Transformation products

Analyse complex waste materials using existing and new methods



Targeted



Non-targeted



New methods

Using tyres and other priority wastes as case study materials, we are developing and validating new methods to assess the availability of chemicals under conditions and in environments relevant to how the materials will be reused.

At the same time, our research is generating data and information on the effects of chemicals in waste on relevant Australian environments and biodiversity. This data and information are critical to enabling decision-making about chemicals in products with recycled content.

Prepared by Naomi Boxall, Project Lead | [Learn more about IP3 here](#)

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