

Solvent Recycling – Sustainability In Practice

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The European Union Directive 'The Waste Framework Directive 98/2008EC' sets out the requirements for waste management practices. An important concept of the Directive is that of the waste hierarchy whereby reuse and recycling are prioritised over energy recovery or other forms of disposal.

This paper focuses on waste solvents and compares the environmental impacts of recycled and virgin solvents. Using life cycle assessment (LCA) as a tool, the paper demonstrates that solvent recycling leads to significant environmental benefits compared to using virgin solvents, including a much lower carbon footprint. The LCA results show that, depending on the type, the carbon footprint of recycled solvents is equal to 156–798 kg CO₂ eq./t. This is 46-92% lower than the carbon footprints of respective virgin solvents, which range from 1470-5730 kg CO₂ eq./t.

The full report on this study can be downloaded from www.esrg-online.eu.