



Options Evaluation Tools

Toxics Use Reduction Planners Continuing
Education Conference – Session F
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Elements of Options Evaluation



Technical Feasibility
Is it Effective?

Economic Feasibility
Is it Affordable?

Hazard Assessment
Is it Safer??

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Alternatives Assessment

- A process for identifying and comparing potential chemical and non-chemical alternatives that can be used as substitutes to replace chemicals or technologies of high concern.
- **Goals –**
 - Reduce risk by reducing hazard
 - Avoid regrettable substitutions
 - Make decisions in the face of uncertainty

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Tool Selector – P2OASys

Tools
Data Sources

Filter Options (- Hide)

Applicability: <input checked="" type="checkbox"/> Chemical substitution <input checked="" type="checkbox"/> Material substitution <input checked="" type="checkbox"/> Product substitution <input checked="" type="checkbox"/> Process modification	Chemical Hazard Attributes: <input checked="" type="checkbox"/> Human health <input checked="" type="checkbox"/> Ecotoxicity <input checked="" type="checkbox"/> Environmental fate <input checked="" type="checkbox"/> Chemical/physical properties	User Friendliness: <input checked="" type="checkbox"/> Automated <input type="checkbox"/> Available in multiple languages <input checked="" type="checkbox"/> Guidance available <input checked="" type="checkbox"/> Support/training available Fees to use tool: Free of charge
Tool Capabilities: <input checked="" type="checkbox"/> Identifies chemical characteristics <input checked="" type="checkbox"/> Compares alternatives <input checked="" type="checkbox"/> Prioritizes substances for assessment <input type="checkbox"/> Identifies examples and/or case studies	Other Comparative Attributes: <input type="checkbox"/> Cost/benefits and availability <input checked="" type="checkbox"/> Exposure <input type="checkbox"/> Life-cycle impacts <input type="checkbox"/> Materials management <input type="checkbox"/> Social impacts <input type="checkbox"/> Technical feasibility	User Expertise: Expertise needed to use tool: A scientific/engineering background Expertise needed to interpret results: A scientific/engineering background

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GreenScreen for Safer Chemicals

- Used for individual chemicals or polymers
- Focuses solely on chemical hazards
- Requires in-depth research of various data sources beyond SDS
- Users prioritize chemicals for substitution based on final benchmark score

<https://www.greenscreenchemicals.org/>

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