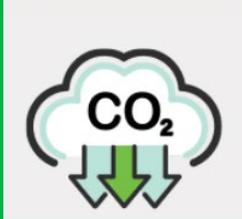


## Challenges of New Corporate Sustainability and Environmental Objectives in a Rapidly Changing Regulatory Landscape

Communicating chemical hazards has gone beyond simple GHS and SDS metrics. Providing environmental and sustainability information beyond what is required for SDSs has taken on more of a chemical hazard communications professional's role than ever before.

Working within legal agreements, building vendor relationships, and working with your company's Product Development and Purchasing departments to obtain needed information from the vendor early on are all techniques which can improve this process. Utilizing other sources of environmental and sustainability metrics is worthwhile to demonstrate worth which isn't always easily defined or trusted if generated internally.

| STRATEGIES  | APPROACHES   | SUMMARY  |
|---|--|--|
| <p><b>OFFICIAL CERTIFICATIONS AND METHODOLOGIES</b></p> <p>ISO 14001: Impact on External Environment<br/>           ISO 45001: Impact on Internal Environment<br/>           ISO 16128-2/ ISO 16620: Biobased Content (Mathematical vs Analytical Test Method)</p>  | <ul style="list-style-type: none"> <li>• Environmental, Social, Governance (ESG)</li> <li>• Health, Safety, Environment (HSE)</li> </ul> <p><small>CARBON Footprint: greenhouse gas emissions (CO<sub>2</sub>)</small></p>  <ul style="list-style-type: none"> <li>• Product Lifecycle Management               <ul style="list-style-type: none"> <li>○ Where to End Chemical Product Life?                   <ul style="list-style-type: none"> <li>▪ Gate-to-Gate</li> <li>▪ Cradle-to-Gate</li> <li>• Cradle-to-Grave</li> </ul> </li> </ul> </li> </ul> | <p>Official/standardized programs such as ISO programs can help standardize, but companies are also bringing their own metrics into the mix. One of the larger issues is how far outside of the product scope a company can control and should include in its reporting.</p> <p>This poster highlights these and other tactics garnered from experience plus recent engagement with new initiatives which can be used to obtain information, improve communications with other departments, and increase confidence that your company is providing the most relevant and most up-to-date metrics when providing sustainability information related to chemical products.</p> |
| <p><b><u>ACCEPTANCE of METRICS</u></b></p> <p>GOVERNMENT<br/>           INDUSTRY<br/>           CUSTOMER</p> <p>Component-based vs Product-based HSE Analysis</p> <p>None Universally Accepted</p>  | <ul style="list-style-type: none"> <li>• LEGAL AGREEMENTS</li> <li>• SUPPLY CHAIN</li> <li>• VENDOR RELATIONSHIPS</li> </ul> <p>(LEGISLATION, CARBON CREDITS, REPORTING, COMPANY IMAGE)</p>  | <p><b>EVOLVING CHEMISTRY</b></p> <p><b>PRODUCT DEVELOPMENT</b></p>    |