

## SPERC fact sheet – *Use of metals and metal compounds in batteries*

General information		
<b>Title of specific ERC</b>	Use of metals and metal compounds in batteries	
<b>Based on ERC</b>		
<b>Version</b>	1.1	
<b>Scope</b>	Industrial use of metals and metal compounds in batteries.	
<b>Coverage</b>	Metal representativeness of background data: 90% data from lead and 10% data from nickel	
<b>Narrative description</b>		
<b>Substance use rate</b>	Assessment defaults as set by ERC	
<b>Other operational conditions</b>	Closed systems, dry process	
<b>Environment Parameters for Fate Calculation</b>	Assessment defaults as set by ERC Assumed data for receiving water and for the municipal sewage treatment plant are 18000 m <sup>3</sup> /d and 2000 m <sup>3</sup> /d, respectively (resulting dilution factor 10). For marine assessments an additional tenfold dilution is assumed.	
	<b>Typical observed efficiency from background data</b>	<b>Type of RMM</b>
<b>Appropriate Risk management measures (RMM) that may be used to achieve required emission reduction</b>	<b>Air:</b>	
	ca. 99%	RMMs for air are present in >90% of the sites: <ul style="list-style-type: none"> <li>• Electrostatic precipitation</li> <li>• Fabric or bag filters (most common)</li> <li>• Ceramic filters</li> <li>• Wet scrubbers (second most common)</li> <li>• Dry or semi-dry scrubbers</li> </ul>

	<b>Water:</b>	
	98.3% (94.00% – 99.8%)	The 50 <sup>th</sup> percentile or reported site-specific removal efficiency for 26 sites. RMMs for water are present in >66% of the sites: <ul style="list-style-type: none"> <li>• Chemical precipitation</li> <li>• Sedimentation</li> <li>• Filtration</li> <li>• Electrolysis (rare)</li> </ul>
	<b>Characteristics of specific ERC</b>	<b>Justification</b>
<b>Number of emission days</b>	220 days/year	The 10 <sup>th</sup> percentile of reported site-specific number of emission days for 38 sites.
<b>Emission fractions</b>	air: 0.002% (release after RMM)	The 90 <sup>th</sup> percentile of reported site-specific release factors to air for 31 sites.
	water: 0.003% (release after on-site RMM)	The 90 <sup>th</sup> percentile of reported site-specific release factors to wastewater for 35 sites.
	soil: n.a.	Assessment default as set by ERC