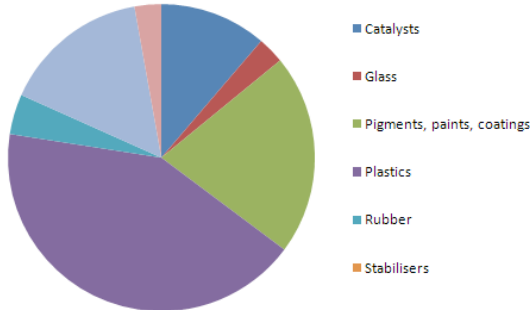
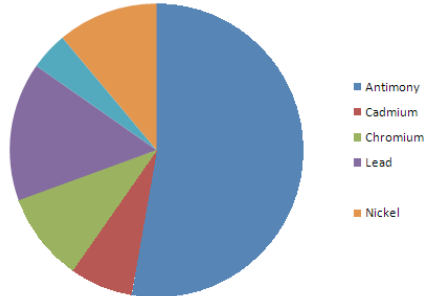


SPERC fact sheet – *Formulation of metal compounds*

General information	
Title of specific ERC	Formulation of metal compounds
Based on ERC	2 – Formulation of preparations
Version	1.1
Scope	Mixing and blending of metal compounds into preparations in following formulating industries: catalyst, glass, pigments, paints, coatings, plastics, rubber and stabilisers, water treatment chemicals.
Coverage	<p>Sector representativeness of background data</p>  <p>Metal representativeness of background data</p> 
Narrative description	
Substance use rate	Assessment defaults as set by ERC
Other operational conditions	Open and closed systems, wet and dry processes

Environment Parameters for Fate Calculation	Assessment defaults as set by ERC Assumed data for receiving water and for the municipal sewage treatment plant are 18000 m ³ /d and 2000 m ³ /d, respectively (resulting dilution factor 10). For marine assessments an additional tenfold dilution is assumed.	
	Typical observed efficiency from background data	Type of RMM
Appropriate Risk management measures (RMM) that may be used to achieve required emission reduction	Air:	
		RMMs for air are present in >80% of the sites: <ul style="list-style-type: none"> • Electrostatic precipitation • Fabric or bag filters (most common) • Ceramic filters • Wet scrubbers (most common) • Dry or semi-dry scrubbers
	Water:	
	94% (50.00% – 93.30%)	The 50 th percentile or reported site-specific removal efficiency for 18 sites. RMMs for water are present in >60% of the sites: <ul style="list-style-type: none"> • Chemical precipitation • Sedimentation • Filtration • Electrolysis (rare)
	Characteristics of specific ERC	Justification
Number of emission days	20 days/year	Assessment default as set by ERC (only few data points available, not sufficient to draw robust statistics)
Emission fractions	air: 0.004% (release after RMM)	The maximum of the 90 th percentiles of reported site-specific release factors to air for <ul style="list-style-type: none"> • 14 sites from pigments, paints and coatings industry (0.004%) • 18 sites from plastics industry (0.003%) • 7 sites from textile industry (0.001%) • 2 sites from water treatment (0%)

	<p>water: 0.5% (release after on-site RMM)</p>	<p>The maximum of the 90th percentiles of reported site-specific release factors to wastewater for</p> <ul style="list-style-type: none"> • 8 sites from catalyst industry (0.03%) • 1 site from the glass industry (0%) • 17 sites from the pigments, paints and coatings industry (0.02%) • 21 sites from plastics industry (0.0003%) • 3 sites from rubber industry (0%) • 14 sites from textile industry (0.5%) • 2 sites from water treatment (<0.1%)
	<p>soil: n.a.</p>	<p>Assessment default as set by ERC</p>