

Generic exposure scenarios for cadmium oxide

Number	Sector	Uses	Code
0	Cadmium oxide production	Manufacture Substance	GES <sub>CdO</sub> 0
1	Formulation step	Formulation general	GES <sub>CdO</sub> 1
2	First tier applications	Manufacturing of other cadmium compounds	GES <sub>CdO</sub> 2
3		Laboratory reagent	GES <sub>CdO</sub> 3
4		As component for solid blends & matrices	GES <sub>CdO</sub> 4
5		As component for production of dispersions, pastes and other viscous matrices	GES <sub>CdO</sub> 5
6		Second tier applications	DU of CdO-containing solid preparations
7	DU of CdO-containing liquid & pasty preparations		GES <sub>CdO</sub> 7

Numerous uses were identified for CdO. These are listed in table below, with the indication of the Generic Exposure Scenario (GES) that is relevant to these identified uses.

Identified uses for CdO and corresponding Generic Exposure Scenario (GES)

IU number	Identified Use (IU) name	GES code
1	Cadmium oxide production - indirect	GES <sub>CdO</sub> 0
2	Cadmium oxide production -Wet	GES <sub>CdO</sub> 0
6	Component for production of inorganic Cadmium compounds	GES <sub>CdO</sub> 2
7	Electro-galvanizing	GES <sub>CdO</sub> 2
8	Electroplating	GES <sub>CdO</sub> 2
9	Laboratory reagent	GES <sub>CdO</sub> 3
10	Cadmium production by pyrometallurgy	GES <sub>CdO</sub> 2
11	Component for production of organic Cadmium compounds	GES <sub>CdO</sub> 1
12	Component for production of Inorganic pigments	GES <sub>CdO</sub> 1, GES <sub>CdO</sub> 4
13	Additive for production of frits	GES <sub>CdO</sub> 1, GES <sub>CdO</sub> 4
14	Additive for production of glass	GES <sub>CdO</sub> 1, GES <sub>CdO</sub> 4
15	Additive in the manufacturing of electronic components	GES <sub>CdO</sub> 1, GES <sub>CdO</sub> 4
16	CdO in electrotechnical contact material	GES <sub>CdO</sub> 1, GES <sub>CdO</sub> 4
17	Batteries/Fuel cells	GES <sub>CdO</sub> 1, GES <sub>CdO</sub> 4, GES <sub>CdO</sub> 5
18	Component for polymer-matrices, plastics and related preparations	GES <sub>CdO</sub> 1, GES <sub>CdO</sub> 5
19	Use of CdO-containing polymers for cable protecting & isolating coatings	GES <sub>CdO</sub> 7
20	Use of CdO-containing polymers for tube & sheet articles	GES <sub>CdO</sub> 7
21	Use of CdO-containing polymers for moulded articles	GES <sub>CdO</sub> 7
22	Use of CdO-containing catalysts	GES <sub>CdO</sub> 1, GES <sub>CdO</sub> 5

Uses by workers in industrial settings

IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
1	Cadmium oxide production - indirect	as such (substance itself)	<p><b>Process category (PROC):</b></p> <p>PROC 2: Use in closed, continuous process with occasional controlled exposure            PROC 3: Use in closed batch process (synthesis or formulation)            PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities            PROC 9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)            PROC 22: Potentially closed processing operations with minerals/metals at elevated temperature. Industrial setting            PROC 26: Handling of solid inorganic substances at ambient temperature</p> <p><b>Market sector by type of chemical product:</b></p> <p>PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents</p> <p><b>Environmental release category (ERC):</b></p> <p>ERC 1: Manufacture of substances</p> <p><b>Sector of end use (SU):</b></p> <p>SU 8: Manufacture of bulk, large scale chemicals (including petroleum products)            SU 9: Manufacture of fine chemicals</p> <p><b>Subsequent service life relevant for that use?:</b> yes</p>
2	Cadmium oxide production -Wet	as such (substance itself)	<p><b>Process category (PROC):</b></p> <p>PROC 2: Use in closed, continuous process with occasional controlled exposure            PROC 3: Use in closed batch process (synthesis or formulation)            PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities            PROC 9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)            PROC 22: Potentially closed processing operations with minerals/metals at elevated temperature. Industrial setting            PROC 26: Handling of solid inorganic substances at ambient temperature</p> <p><b>Market sector by type of chemical product:</b></p> <p>PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents</p> <p><b>Environmental release category (ERC):</b></p>

IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
			<p>ERC 1: Manufacture of substances</p> <p><b>Sector of end use (SU):</b></p> <p>SU 8: Manufacture of bulk, large scale chemicals (including petroleum products)</p> <p>SU 9: Manufacture of fine chemicals</p> <p><b>Subsequent service life relevant for that use?:</b> yes</p>
6	Component for production of inorganic Cadmium compounds	<p>as such (substance itself)</p> <p>in a mixture</p>	<p><b>Process category (PROC):</b></p> <p>PROC 2: Use in closed, continuous process with occasional controlled exposure</p> <p>PROC 3: Use in closed batch process (synthesis or formulation)</p> <p>PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</p> <p>PROC 9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)</p> <p>PROC 15: Use as laboratory reagent</p> <p>PROC 21: Low energy manipulation of substances bound in materials and/or articles</p> <p>PROC 22: Potentially closed processing operations with minerals/metals at elevated temperature. Industrial setting</p> <p><b>Market sector by type of chemical product:</b></p> <p>PC 19: Intermediate</p> <p>PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents</p> <p>PC 21: Laboratory chemicals</p> <p><b>Environmental release category (ERC):</b></p> <p>ERC 1: Manufacture of substances</p> <p>ERC 2: Formulation of preparations</p> <p>ERC 6a: Industrial use resulting in manufacture of another substance (use of intermediates)</p> <p><b>Sector of end use (SU):</b></p> <p>SU 8: Manufacture of bulk, large scale chemicals (including petroleum products)</p> <p>SU 9: Manufacture of fine chemicals</p> <p>SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)</p> <p><b>Subsequent service life relevant for that use?:</b> yes</p>
7	Electro-galvanizing	as such (substance itself)	<p><b>Process category (PROC):</b></p> <p>PROC 13: Treatment of articles by dipping and pouring</p> <p>PROC 21: Low energy manipulation of substances bound in materials and/or articles</p> <p><b>Market sector by type of chemical product:</b></p>

IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
			<p>PC 7: Base metals and alloys PC 14: Metal surface treatment products, including galvanic and electroplating products</p> <p><b>Environmental release category (ERC):</b> ERC 2: Formulation of preparations ERC 5: Industrial use resulting in inclusion into or onto a matrix</p> <p><b>Sector of end use (SU):</b> SU 15: Manufacture of fabricated metal products, except machinery and equipment SU 17: General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment SU 0: Other: Nace C25.6.1: Treatment and coating of metals</p> <p><b>Subsequent service life relevant for that use?:</b> yes</p> <p><b>Article category related to subsequent service life (AC):</b> AC 2: Machinery, mechanical appliances, electrical/electronic articles AC 7: Metal articles</p>
8	Electroplating	as such (substance itself)	<p><b>Process category (PROC):</b> PROC 3: Use in closed batch process (synthesis or formulation) PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities PROC 21: Low energy manipulation of substances bound in materials and/or articles</p> <p><b>Market sector by type of chemical product:</b> PC 7: Base metals and alloys PC 14: Metal surface treatment products, including galvanic and electroplating products</p> <p><b>Environmental release category (ERC):</b> ERC 2: Formulation of preparations ERC 5: Industrial use resulting in inclusion into or onto a matrix</p> <p><b>Sector of end use (SU):</b> SU 15: Manufacture of fabricated metal products, except machinery and equipment SU 17: General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment SU 0: Other: Nace C25.6.1: Treatment and coating of metals</p> <p><b>Subsequent service life relevant for that use?:</b> yes</p> <p><b>Article category related to subsequent service life (AC):</b> AC 2: Machinery, mechanical appliances, electrical/electronic articles</p>

IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
			AC 7: Metal articles
9	Laboratory reagent	as such (substance itself)	<p><b>Process category (PROC):</b></p> <p>PROC 1: Use in closed process, no likelihood of exposure  PROC 2: Use in closed, continuous process with occasional controlled exposure  PROC 3: Use in closed batch process (synthesis or formulation)  PROC 4: Use in batch and other process (synthesis) where opportunity for exposure arises  PROC 5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)  PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities  PROC 9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)  PROC 15: Use as laboratory reagent</p> <p><b>Market sector by type of chemical product:</b></p> <p>PC 19: Intermediate  PC 21: Laboratory chemicals  PC 28: Perfumes, fragrances  PC 39: Cosmetics, personal care products</p> <p><b>Environmental release category (ERC):</b></p> <p>ERC 1: Manufacture of substances  ERC 2: Formulation of preparations  ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles  ERC 6a: Industrial use resulting in manufacture of another substance (use of intermediates)  ERC 6b: Industrial use of reactive processing aids  ERC 8a: Wide dispersive indoor use of processing aids in open systems  ERC 8d: Wide dispersive outdoor use of processing aids in open systems</p> <p><b>Sector of end use (SU):</b></p> <p>SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)  SU 24: Scientific research and development</p> <p><b>Subsequent service life relevant for that use?:</b> yes</p>
10	Cadmium production by pyrometallurgy	as such (substance itself)	<p><b>Process category (PROC):</b></p> <p>PROC 2: Use in closed, continuous process with occasional controlled exposure  PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities  PROC 9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)</p>

IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
			<p>PROC 23: Open processing and transfer operations with minerals/metals at elevated temperature            PROC 26: Handling of solid inorganic substances at ambient temperature</p> <p><b>Market sector by type of chemical product:</b>            PC 7: Base metals and alloys</p> <p><b>Environmental release category (ERC):</b>            ERC 1: Manufacture of substances</p> <p><b>Sector of end use (SU):</b>            SU 14: Manufacture of basic metals, including alloys            SU 0: Other: Nace C24.4.5: Other non-ferrous metal production, E38.3: Materials recovery</p> <p><b>Subsequent service life relevant for that use?:</b> yes</p>
11	Component for production of organic Cadmium compounds	as such (substance itself)  in a mixture	<p><b>Process category (PROC):</b>            PROC 1: Use in closed process, no likelihood of exposure            PROC 2: Use in closed, continuous process with occasional controlled exposure            PROC 3: Use in closed batch process (synthesis or formulation)            PROC 4: Use in batch and other process (synthesis) where opportunity for exposure arises            PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities            PROC 9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)            PROC 15: Use as laboratory reagent</p> <p><b>Market sector by type of chemical product:</b>            PC 19: Intermediate            PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents            PC 21: Laboratory chemicals            PC 24: Lubricants, greases, release products            PC 29: Pharmaceuticals            PC 39: Cosmetics, personal care products</p> <p><b>Environmental release category (ERC):</b>            ERC 1: Manufacture of substances            ERC 2: Formulation of preparations            ERC 6a: Industrial use resulting in manufacture of another substance (use of intermediates)</p> <p><b>Sector of end use (SU):</b>            SU 8: Manufacture of bulk, large scale chemicals (including petroleum products)</p>

IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
			<p>SU 9: Manufacture of fine chemicals  SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)</p> <p><b>Subsequent service life relevant for that use?:</b> yes</p>
12	Component for production of Inorganic pigments	in a mixture	<p><b>Process category (PROC):</b></p> <p>PROC 1: Use in closed process, no likelihood of exposure  PROC 2: Use in closed, continuous process with occasional controlled exposure  PROC 3: Use in closed batch process (synthesis or formulation)  PROC 4: Use in batch and other process (synthesis) where opportunity for exposure arises  PROC 5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)  PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities  PROC 9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)  PROC 22: Potentially closed processing operations with minerals/metals at elevated temperature. Industrial setting</p> <p><b>Market sector by type of chemical product:</b></p> <p>PC 9a: Coatings and paints, thinners, paint removers  PC 9b: Fillers, putties, plasters, modelling clay  PC 9c: Finger paints</p> <p><b>Environmental release category (ERC):</b></p> <p>ERC 1: Manufacture of substances  ERC 2: Formulation of preparations  ERC 5: Industrial use resulting in inclusion into or onto a matrix</p> <p><b>Sector of end use (SU):</b></p> <p>SU 8: Manufacture of bulk, large scale chemicals (including petroleum products)  SU 9: Manufacture of fine chemicals  SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)  SU 13: Manufacture of other non-metallic mineral products, e.g. plasters, cement</p> <p><b>Subsequent service life relevant for that use?:</b> yes</p>
13	Additive for production of frits	as such (substance itself)  in a mixture	<p><b>Process category (PROC):</b></p> <p>PROC 2: Use in closed, continuous process with occasional controlled exposure  PROC 3: Use in closed batch process (synthesis or formulation)  PROC 4: Use in batch and other process (synthesis) where opportunity for exposure arises  PROC 5: Mixing or blending in batch processes for formulation of preparations and articles</p>

IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
			<p>(multistage and/or significant contact)  PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities  PROC 9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)  PROC 13: Treatment of articles by dipping and pouring  PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation  PROC 15: Use as laboratory reagent  PROC 17: Lubrication at high energy conditions and in partly open process  PROC 22: Potentially closed processing operations with minerals/metals at elevated temperature. Industrial setting  PROC 26: Handling of solid inorganic substances at ambient temperature</p> <p><b>Market sector by type of chemical product:</b>  PC 19: Intermediate  PC 0: Other: UCN R30100-R30200: Raw materials for synthesis and intermediate products/Raw materials for production of glass and ceramics</p> <p><b>Environmental release category (ERC):</b>  ERC 1: Manufacture of substances  ERC 2: Formulation of preparations  ERC 3: Formulation in materials  ERC 5: Industrial use resulting in inclusion into or onto a matrix</p> <p><b>Sector of end use (SU):</b>  SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)  SU 13: Manufacture of other non-metallic mineral products, e.g. plasters, cement</p> <p><b>Subsequent service life relevant for that use?:</b> yes</p> <p><b>Article category related to subsequent service life (AC):</b>  AC 3: Electrical batteries and accumulators  AC 4: Stone, plaster, cement, glass and ceramic articles  AC 0: Other: TARIC 8541 21 transistors other than photosensitive transistors</p>
14	Additive for production of glass	as such (substance itself)  in a mixture	<p><b>Process category (PROC):</b>  PROC 2: Use in closed, continuous process with occasional controlled exposure  PROC 3: Use in closed batch process (synthesis or formulation)  PROC 4: Use in batch and other process (synthesis) where opportunity for exposure arises  PROC 5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)</p>



IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
			<p>PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities            PROC 9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)            PROC 22: Potentially closed processing operations with minerals/metals at elevated temperature. Industrial setting</p> <p><b>Market sector by type of chemical product:</b>            PC 19: Intermediate            PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents</p> <p><b>Environmental release category (ERC):</b>            ERC 2: Formulation of preparations            ERC 3: Formulation in materials            ERC 5: Industrial use resulting in inclusion into or onto a matrix            ERC 6a: Industrial use resulting in manufacture of another substance (use of intermediates)</p> <p><b>Sector of end use (SU):</b>            SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)            SU 13: Manufacture of other non-metallic mineral products, e.g. plasters, cement            SU 0: Other: Nace C23.1: Manufacture of glass and glass products</p> <p><b>Subsequent service life relevant for that use?:</b> yes</p> <p><b>Article category related to subsequent service life (AC):</b>            AC 4: Stone, plaster, cement, glass and ceramic articles</p>
15	Additive in the manufacturing of electronic components	as such (substance itself)  in a mixture	<p><b>Process category (PROC):</b>            PROC 3: Use in closed batch process (synthesis or formulation)            PROC 5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)            PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities            PROC 9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)            PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation            PROC 22: Potentially closed processing operations with minerals/metals at elevated temperature. Industrial setting            PROC 24: High (mechanical) energy work-up of substances bound in materials and/or articles</p> <p><b>Market sector by type of chemical product:</b></p>

IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
			<p>PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents</p> <p><b>Environmental release category (ERC):</b>  ERC 2: Formulation of preparations  ERC 5: Industrial use resulting in inclusion into or onto a matrix</p> <p><b>Sector of end use (SU):</b>  SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)  SU 13: Manufacture of other non-metallic mineral products, e.g. plasters, cement  SU 0: Other: Nace C26.1.1: Manufacture of electronic components  SU 16: Manufacture of computer, electronic and optical products, electrical equipment</p> <p><b>Subsequent service life relevant for that use?:</b> yes</p> <p><b>Article category related to subsequent service life (AC):</b>  AC 4: Stone, plaster, cement, glass and ceramic articles  AC 2: Machinery, mechanical appliances, electrical/electronic articles</p>
16	CdO in electrotechnical contact material	as such (substance itself)  in a mixture	<p><b>Process category (PROC):</b>  PROC 3: Use in closed batch process (synthesis or formulation)  PROC 5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)  PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation</p> <p><b>Market sector by type of chemical product:</b>  PC 7: Base metals and alloys  PC 14: Metal surface treatment products, including galvanic and electroplating products  PC 19: Intermediate</p> <p><b>Environmental release category (ERC):</b>  ERC 2: Formulation of preparations  ERC 5: Industrial use resulting in inclusion into or onto a matrix  ERC 6a: Industrial use resulting in manufacture of another substance (use of intermediates)</p> <p><b>Sector of end use (SU):</b>  SU 13: Manufacture of other non-metallic mineral products, e.g. plasters, cement  SU 14: Manufacture of basic metals, including alloys  SU 16: Manufacture of computer, electronic and optical products, electrical equipment</p> <p><b>Subsequent service life relevant for that use?:</b> yes</p>

IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
			<p><b>Article category related to subsequent service life (AC):</b>  AC 2: Machinery, mechanical appliances, electrical/electronic articles  AC 4: Stone, plaster, cement, glass and ceramic articles  AC 7: Metal articles</p>
17	Batteries/Fuel cells	as such (substance itself)  in a mixture	<p><b>Process category (PROC):</b>  PROC 3: Use in closed batch process (synthesis or formulation)  PROC 5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)  PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation  PROC 13: Treatment of articles by dipping and pouring</p> <p><b>Market sector by type of chemical product:</b>  PC 14: Metal surface treatment products, including galvanic and electroplating products  PC 19: Intermediate  PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents  PC 21: Laboratory chemicals</p> <p><b>Environmental release category (ERC):</b>  ERC 2: Formulation of preparations  ERC 5: Industrial use resulting in inclusion into or onto a matrix</p> <p><b>Sector of end use (SU):</b>  SU 16: Manufacture of computer, electronic and optical products, electrical equipment  SU 0: Other: Nace C27.2: Manufacture of batteries and accumulators</p> <p><b>Subsequent service life relevant for that use?:</b> yes</p> <p><b>Article category related to subsequent service life (AC):</b>  AC 3: Electrical batteries and accumulators</p>
18	Component for polymer-matrices, plastics and related preparations	as such (substance itself)  in a mixture	<p><b>Process category (PROC):</b>  PROC 2: Use in closed, continuous process with occasional controlled exposure  PROC 3: Use in closed batch process (synthesis or formulation)  PROC 5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)  PROC 6: Calendering operations  PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities  PROC 9: Transfer of substance or preparation into small containers (dedicated filling line,</p>

IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
			<p>including weighing)  PROC 10: Roller application or brushing  PROC 13: Treatment of articles by dipping and pouring  PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation  PROC 21: Low energy manipulation of substances bound in materials and/or articles  PROC 24: High (mechanical) energy work-up of substances bound in materials and/or articles</p> <p><b>Market sector by type of chemical product:</b></p> <p>PC 19: Intermediate  PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents  PC 32: Polymer preparations and compounds  PC 33: Semiconductors</p> <p><b>Environmental release category (ERC):</b></p> <p>ERC 1: Manufacture of substances  ERC 3: Formulation in materials  ERC 5: Industrial use resulting in inclusion into or onto a matrix  ERC 6a: Industrial use resulting in manufacture of another substance (use of intermediates)</p> <p><b>Sector of end use (SU):</b></p> <p>SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)  SU 12: Manufacture of plastics products, including compounding and conversion</p> <p><b>Subsequent service life relevant for that use?:</b> yes</p> <p><b>Article category related to subsequent service life (AC):</b></p> <p>AC 1: Vehicles  AC 2: Machinery, mechanical appliances, electrical/electronic articles  AC 3: Electrical batteries and accumulators  AC 13: Plastic articles</p>
19	Use of CdO-containing polymers for cable protecting & isolating coatings	in a mixture	<p><b>Process category (PROC):</b></p> <p>PROC 9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)  PROC 13: Treatment of articles by dipping and pouring  PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation  PROC 21: Low energy manipulation of substances bound in materials and/or articles</p> <p><b>Market sector by type of chemical product:</b></p>

IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
			<p>PC 32: Polymer preparations and compounds</p> <p><b>Environmental release category (ERC):</b></p> <p>ERC 10a: Wide dispersive outdoor use of long-life articles and materials with low release ERC 11a: Wide dispersive indoor use of long-life articles and materials with low release</p> <p><b>Sector of end use (SU):</b></p> <p>SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys) SU 12: Manufacture of plastics products, including compounding and conversion SU 19: Building and construction work</p> <p><b>Subsequent service life relevant for that use?:</b> yes</p> <p><b>Article category related to subsequent service life (AC):</b></p> <p>AC 1: Vehicles AC 3: Electrical batteries and accumulators AC 13: Plastic articles</p>
20	Use of CdO-containing polymers for tube & sheet articles	in a mixture	<p><b>Process category (PROC):</b></p> <p>PROC 9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing) PROC 13: Treatment of articles by dipping and pouring PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation PROC 21: Low energy manipulation of substances bound in materials and/or articles</p> <p><b>Market sector by type of chemical product:</b></p> <p>PC 32: Polymer preparations and compounds</p> <p><b>Environmental release category (ERC):</b></p> <p>ERC 10a: Wide dispersive outdoor use of long-life articles and materials with low release ERC 11a: Wide dispersive indoor use of long-life articles and materials with low release</p> <p><b>Sector of end use (SU):</b></p> <p>SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys) SU 12: Manufacture of plastics products, including compounding and conversion SU 19: Building and construction work</p> <p><b>Subsequent service life relevant for that use?:</b> yes</p> <p><b>Article category related to subsequent service life (AC):</b></p>

IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
			AC 1: Vehicles AC 3: Electrical batteries and accumulators AC 13: Plastic articles
21	Use of CdO-containing polymers for molded articles	in a mixture	<p><b>Process category (PROC):</b></p> PROC 9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing) PROC 13: Treatment of articles by dipping and pouring PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation PROC 21: Low energy manipulation of substances bound in materials and/or articles PROC 24: High (mechanical) energy work-up of substances bound in materials and/or articles <p><b>Market sector by type of chemical product:</b></p> PC 32: Polymer preparations and compounds <p><b>Environmental release category (ERC):</b></p> ERC 10a: Wide dispersive outdoor use of long-life articles and materials with low release ERC 11a: Wide dispersive indoor use of long-life articles and materials with low release <p><b>Sector of end use (SU):</b></p> SU 1: Agriculture, forestry and fishing SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys) SU 12: Manufacture of plastics products, including compounding and conversion SU 17: General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment SU 19: Building and construction work <p><b>Subsequent service life relevant for that use?:</b> yes</p> <p><b>Article category related to subsequent service life (AC):</b></p> AC 1: Vehicles AC 3: Electrical batteries and accumulators AC 13: Plastic articles
22	Use of CdO-containing catalysts	in a mixture	<p><b>Process category (PROC):</b></p> PROC 1: Use in closed process, no likelihood of exposure PROC 2: Use in closed, continuous process with occasional controlled exposure PROC 3: Use in closed batch process (synthesis or formulation) PROC 5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact) PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities

IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
			<p>PROC 9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)            PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation</p> <p><b>Market sector by type of chemical product:</b></p> <p>PC 2: Adsorbents            PC 9b: Fillers, putties, plasters, modelling clay            PC 19: Intermediate            PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents            PC 40: Extraction agents</p> <p><b>Environmental release category (ERC):</b></p> <p>ERC 1: Manufacture of substances            ERC 5: Industrial use resulting in inclusion into or onto a matrix            ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles            ERC 6a: Industrial use resulting in manufacture of another substance (use of intermediates)            ERC 6b: Industrial use of reactive processing aids</p> <p><b>Sector of end use (SU):</b></p> <p>SU 8: Manufacture of bulk, large scale chemicals (including petroleum products)            SU 9: Manufacture of fine chemicals            SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)</p> <p><b>Subsequent service life relevant for that use?:</b> yes</p>

Uses by professional workers

IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
9	Laboratory reagent	as such (substance itself)	<p><b>Process category (PROC):</b></p> <p>PROC 1: Use in closed process, no likelihood of exposure            PROC 2: Use in closed, continuous process with occasional controlled exposure            PROC 3: Use in closed batch process (synthesis or formulation)            PROC 4: Use in batch and other process (synthesis) where opportunity for exposure arises            PROC 5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)            PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities            PROC 9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)            PROC 15: Use as laboratory reagent</p> <p><b>Market sector by type of chemical product:</b></p> <p>PC 19: Intermediate            PC 21: Laboratory chemicals            PC 28: Perfumes, fragrances            PC 39: Cosmetics, personal care products</p> <p><b>Environmental release category (ERC):</b></p> <p>ERC 1: Manufacture of substances            ERC 2: Formulation of preparations            ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles            ERC 6a: Industrial use resulting in manufacture of another substance (use of intermediates)            ERC 6b: Industrial use of reactive processing aids            ERC 8a: Wide dispersive indoor use of processing aids in open systems            ERC 8d: Wide dispersive outdoor use of processing aids in open systems</p> <p><b>Sector of end use (SU):</b></p> <p>SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)            SU 24: Scientific research and development</p> <p><b>Subsequent service life relevant for that use?:</b> yes</p>
19	Use of CdO-containing polymers for cable protecting & isolating coatings	in a mixture	<p><b>Process category (PROC):</b></p> <p>PROC 9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)            PROC 13: Treatment of articles by dipping and pouring</p>



			<p>PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation  PROC 21: Low energy manipulation of substances bound in materials and/or articles</p> <p><b>Market sector by type of chemical product:</b>  PC 32: Polymer preparations and compounds</p> <p><b>Environmental release category (ERC):</b>  ERC 10a: Wide dispersive outdoor use of long-life articles and materials with low release  ERC 11a: Wide dispersive indoor use of long-life articles and materials with low release</p> <p><b>Sector of end use (SU):</b>  SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)  SU 12: Manufacture of plastics products, including compounding and conversion  SU 19: Building and construction work</p> <p><b>Subsequent service life relevant for that use?:</b> yes</p> <p><b>Article category related to subsequent service life (AC):</b>  AC 1: Vehicles  AC 3: Electrical batteries and accumulators  AC 13: Plastic articles</p>
20	Use of CdO-containing polymers for tube & sheet articles	in a mixture	<p><b>Process category (PROC):</b>  PROC 9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)  PROC 13: Treatment of articles by dipping and pouring  PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation  PROC 21: Low energy manipulation of substances bound in materials and/or articles</p> <p><b>Market sector by type of chemical product:</b>  PC 32: Polymer preparations and compounds</p> <p><b>Environmental release category (ERC):</b>  ERC 10a: Wide dispersive outdoor use of long-life articles and materials with low release  ERC 11a: Wide dispersive indoor use of long-life articles and materials with low release</p> <p><b>Sector of end use (SU):</b>  SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)  SU 12: Manufacture of plastics products, including compounding and conversion  SU 19: Building and construction work</p>

			<p><b>Subsequent service life relevant for that use?:</b> yes</p> <p><b>Article category related to subsequent service life (AC):</b></p> <p>AC 1: Vehicles AC 3: Electrical batteries and accumulators AC 13: Plastic articles</p>
21	Use of CdO-containing polymers for moulded articles	in a mixture	<p><b>Process category (PROC):</b></p> <p>PROC 9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing) PROC 13: Treatment of articles by dipping and pouring PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation PROC 21: Low energy manipulation of substances bound in materials and/or articles PROC 24: High (mechanical) energy work-up of substances bound in materials and/or articles</p> <p><b>Market sector by type of chemical product:</b></p> <p>PC 32: Polymer preparations and compounds</p> <p><b>Environmental release category (ERC):</b></p> <p>ERC 10a: Wide dispersive outdoor use of long-life articles and materials with low release ERC 11a: Wide dispersive indoor use of long-life articles and materials with low release</p> <p><b>Sector of end use (SU):</b></p> <p>SU 1: Agriculture, forestry and fishing SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys) SU 12: Manufacture of plastics products, including compounding and conversion SU 17: General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment SU 19: Building and construction work</p> <p><b>Subsequent service life relevant for that use?:</b> yes</p> <p><b>Article category related to subsequent service life (AC):</b></p> <p>AC 1: Vehicles AC 3: Electrical batteries and accumulators AC 13: Plastic articles</p>