Generic exposure scenarios for cadmium

Number	Sector	Uses	Code
0	Cadmium metal production	Manufacture Substance	GES_{Cd} 0
1	Formulation step: melting, alloying and casting in massive pieces	Forrmulation general	GES_{Cd} 1
2	Formulation step: melting, alloying and manufacture of powders	Forrmulation general	GES_{Cd} 2
3	First tier applications	Manufacturing of other cadmium compounds	GES_{Cd} 3
4		Laboratory reagent	GES_{Cd} 4
5		Use of molten Cadmium	GES_{Cd} 5
6		Transformation of massive Cadmium	GES_{Cd} 6
7		Use of Cadmium powders	GES_{Cd} 7
8	Second tier applications	DU of massive pieces of Cadmium	GES_{Cd} 8
9		DU of preparations containing Cadmium-powder	GES_{Cd} 9

Numerous uses were identified for Cd. 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 Cd and corresponding Generic Exposure Scenario (GES)

IU number	Identified Use (IU) name	GES code
1	Cadmium metal production RLE	GESCd 0
2	Cadmium metal production by pyrometallurgy	GESCd 0
3	Storage of ingots-slabs in warehouses	GESCd 1
4	Production of chemicals (pyro)	GESCd 3
5	Production of chemicals (hydro)	GESCd 3
6	Additive for production of inorganic catalysts	GESCd 2
7	Melting, alloying and casting	GESCd 1
8	Production of "targets" by (EB) PVD	GESCd 1
9	Cadmium casting and rolling	GESCd 1, GESCd 6
10	Wire and rods manufacturing	GESCd 1, GESCd 6
11	Component for brazing products	GESCd 1, GESCd 6

IU number	Identified Use (IU) name	GES code
12	Component for soldering products	GESCd 1, GESCd 6
13	Downstream use of Cadmium based brazing products	GESCd 8
14	Downstream use of cadmium-based soldering products	GESCd 8
15	Cadmium (alloyed) powder manufacturing	GESCd 2
16	Powders for contact materials	GESCd 7
17	Use of active powders for batteries	GESCd 7
18	Use of fine powders for mechanical plating	GESCd 7
19	Manufacturing of Cadmium containing-alloys	GESCd 1
20	Use of cadmium containing Ag alloys	GESCd 6
21	Electroplating	GESCd 1
22	PVD / coating	GESCd 8

Uses by workers in industrial settings

IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
1	Cadmium metal production RLE	as such (substance itself)	**Process category (PROC):** 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) PROC 26: Handling of solid inorganic substances at ambient temperature PROC 5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact) **Market sector by type of chemical product:** PC 7: Base metals and alloys **Environmental release category (ERC):** ERC 1: Manufacture of substances ERC 2: Formulation of preparations **Sector of end use (SU):** SU 8: Manufacture of bulk, large scale chemicals (including petroleum products) SU 14: Manufacture of basic metals, including alloys SU 0: Other: NACE C24.4.5: Other non-ferrous metal production, E38.3: Materials recovery **Subsequent service life relevant for that use?:** yes
2	Cadmium metal production by pyrometallurgy	as such (substance itself)	**Process category (PROC):** 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 25: Other hot work operations with metals PROC 26: Handling of solid inorganic substances at ambient temperature 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) **Market sector by type of chemical product:**

IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
			PC 7: Base metals and alloys **Environmental release category (ERC):** ERC 1: Manufacture of substances ERC 2: Formulation of preparations **Sector of end use (SU):** SU 8: Manufacture of bulk, large scale chemicals (including petroleum products) SU 14: Manufacture of basic metals, including alloys SU 0: Other: NACE C24.4.5: Other non-ferrous metal production, E38.3: Materials recovery **Subsequent service life relevant for that use?:** yes
3	Storage of ingots-slabs in warehouses	as such (substance itself) in a mixture	**Process category (PROC):** PROC 26: Handling of solid inorganic substances at ambient temperature PROC 3: Use in closed batch process (synthesis or formulation) **Market sector by type of chemical product:** PC 7: Base metals and alloys **Environmental release category (ERC):** 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 **Sector of end use (SU):** SU 14: Manufacture of basic metals, including alloys **Subsequent service life relevant for that use?:** yes **Article category related to subsequent service life (AC):** AC 7: Metal articles
4	Production of chemicals (pyro)	as such (substance itself)	**Process category (PROC):** 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

IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
			PROC 26: Handling of solid inorganic substances at ambient temperature PROC 13: Treatment of articles by dipping and pouring PROC 15: Use as laboratory reagent **Market sector by type of chemical product:** PC 7: Base metals and alloys PC 19: Intermediate PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents PC 21: Laboratory chemicals **Environmental release category (ERC):** ERC 1: Manufacture of substances **Sector of end use (SU):** 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 0: Other: Nace C23.9.9: Manufacture of other non-metallic mineral products n.e.c. **Subsequent service life relevant for that use?:** yes
5	Production of chemicals (hydro)	as such (substance itself)	**Process category (PROC):** 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 26: Handling of solid inorganic substances at ambient temperature PROC 13: Treatment of articles by dipping and pouring PROC 15: Use as laboratory reagent **Market sector by type of chemical product:** PC 7: Base metals and alloys PC 19: Intermediate PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents PC 21: Laboratory chemicals **Environmental release category (ERC):** ERC 1: Manufacture of substances **Sector of end use (SU):**

IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
			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 0: Other: Nace C23.9.9: Manufacture of other non-metallic mineral products n.e.c. **Subsequent service life relevant for that use?:** yes
6	Additive for production of inorganic catalysts	as such (substance itself)	**Process category (PROC):** 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 PROC 9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing) PROC 14: Production of preparations or articles by tabletting, compression, extrusion, pelletisation PROC 26: Handling of solid inorganic substances at ambient temperature **Market sector by type of chemical product:** PC 2: Adsorbents PC 7: Base metals and alloys 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 **Environmental release category (ERC):** ERC 1: Manufacture of substances ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles 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) ERC 6b: Industrial use of reactive processing aids **Sector of end use (SU):** 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 0: Other: Nace: C20.1.3: Manufacture of other inorganic basic chemicals **Subsequent service life relevant for that use?:** yes

IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
7	Melting, alloying and casting	as such (substance itself)	**Process category (PROC):** 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 22: Potentially closed processing operations with minerals/metals at elevated temperature. Industrial setting PROC 23: Open processing and transfer operations with minerals/metals at elevated temperature **Market sector by type of chemical product:** PC 7: Base metals and alloys **Environmental release category (ERC):** ERC 1: Manufacture of substances ERC 2: Formulation of preparations **Sector of end use (SU):** SU 14: Manufacture of basic metals, including alloys SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys) SU 0: Other: NACE C24.4.5: Other non-ferrous metal production, E38.3: Materials recovery **Subsequent service life relevant for that use?:** yes **Article category related to subsequent service life (AC):** AC 7: Metal articles
8	Production of "targets" by (EB) PVD	as such (substance itself) in a mixture	**Process category (PROC):** 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 PROC 9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing) PROC 15: Use as laboratory reagent PROC 22: Potentially closed processing operations with minerals/metals at elevated temperature. Industrial setting **Market sector by type of chemical product:** PC 7: Base metals and alloys

IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
			Environmental release category (ERC): 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 **Sector of end use (SU):** SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys) SU 14: Manufacture of basic metals, including alloys **Subsequent service life relevant for that use?:** yes **Article category related to subsequent service life (AC):** AC 2: Machinery, mechanical appliances, electrical/electronic articles AC 7: Metal articles
9	Cadmium casting and rolling	as such (substance itself) in a mixture	**Process category (PROC):** PROC 6: Calendering operations 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 **Market sector by type of chemical product:** PC 7: Base metals and alloys **Environmental release category (ERC):** ERC 2: Formulation of preparations ERC 5: Industrial use resulting in inclusion into or onto a matrix **Sector of end use (SU):** SU 14: Manufacture of basic metals, including alloys SU 15: Manufacture of fabricated metal products, except machinery and equipment **Subsequent service life relevant for that use?:** yes **Article category related to subsequent service life (AC):** AC 7: Metal articles AC 2: Machinery, mechanical appliances, electrical/electronic articles AC 3: Electrical batteries and accumulators
10	Wire and rods manufacturing	as such (substance itself) in a mixture	**Process category (PROC):** PROC 6: Calendering operations

IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
			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 **Market sector by type of chemical product:** PC 7: Base metals and alloys **Environmental release category (ERC):** ERC 2: Formulation of preparations ERC 5: Industrial use resulting in inclusion into or onto a matrix **Sector of end use (SU):** SU 14: Manufacture of basic metals, including alloys SU 15: Manufacture of fabricated metal products, except machinery and equipment SU 0: Other: Nace C25.9.3: Manufacture of wire products, chain and springs **Subsequent service life relevant for that use?:** yes **Article category related to subsequent service life (AC):** AC 7: Metal articles AC 2: Machinery, mechanical appliances, electrical/electronic articles
11	Component for brazing products	as such (substance itself) in a mixture	**Process category (PROC):** PROC 5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact) PROC 22: Potentially closed processing operations with minerals/metals at elevated temperature. Industrial setting **Market sector by type of chemical product:** PC 7: Base metals and alloys PC 38: Welding and soldering products (with flux coatings or flux cores.), flux products **Environmental release category (ERC):** ERC 2: Formulation of preparations ERC 5: Industrial use resulting in inclusion into or onto a matrix **Sector of end use (SU):** SU 14: Manufacture of basic metals, including alloys SU 15: Manufacture of fabricated metal products, except machinery and equipment SU 0: Other: Nace C25.9.3: Manufacture of wire products, chain and springs **Subsequent service life relevant for that use?:** yes

IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
			Article category related to subsequent service life (AC): AC 2: Machinery, mechanical appliances, electrical/electronic articles AC 7: Metal articles
12	Component for soldering products	as such (substance itself) in a mixture	**Process category (PROC):** PROC 5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact) PROC 22: Potentially closed processing operations with minerals/metals at elevated temperature. Industrial setting **Market sector by type of chemical product:** PC 7: Base metals and alloys PC 38: Welding and soldering products (with flux coatings or flux cores.), flux products **Environmental release category (ERC):** ERC 2: Formulation of preparations ERC 5: Industrial use resulting in inclusion into or onto a matrix **Sector of end use (SU):** SU 14: Manufacture of basic metals, including alloys SU 15: Manufacture of fabricated metal products, except machinery and equipment SU 0: Other: Nace C25.9.3: Manufacture of wire products, chain and springs **Subsequent service life relevant for that use?:** yes **Article category related to subsequent service life (AC):** AC 2: Machinery, mechanical appliances, electrical/electronic articles AC 7: Metal articles
13	Downstream use of Cadmium based brazing products	in a mixture	**Process category (PROC):** PROC 21: Low energy manipulation of substances bound in materials and/or articles PROC 25: Other hot work operations with metals **Market sector by type of chemical product:** PC 7: Base metals and alloys PC 38: Welding and soldering products (with flux coatings or flux cores.), flux products **Environmental release category (ERC):** 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

IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
			ERC 5: Industrial use resulting in inclusion into or onto a matrix **Sector of end use (SU):** SU 14: Manufacture of basic metals, including alloys SU 15: Manufacture of fabricated metal products, except machinery and equipment SU 18: Manufacture of furniture SU 19: Building and construction work SU 16: Manufacture of computer, electronic and optical products, electrical equipment SU 17: General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment SU 0: Other: Nace C25.9.3: Manufacture of wire products, chain and springs **Subsequent service life relevant for that use?:** yes **Article category related to subsequent service life (AC):** AC 1: Vehicles AC 2: Machinery, mechanical appliances, electrical/electronic articles AC 3: Electrical batteries and accumulators AC 7: Metal articles
14	Downstream use of cadmium-based soldering products	in a mixture	**Process category (PROC):** PROC 21: Low energy manipulation of substances bound in materials and/or articles PROC 25: Other hot work operations with metals **Market sector by type of chemical product:** PC 7: Base metals and alloys PC 38: Welding and soldering products (with flux coatings or flux cores.), flux products **Environmental release category (ERC):** ERC 5: Industrial use resulting in inclusion into or onto a matrix 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 **Sector of end use (SU):** SU 14: Manufacture of basic metals, including alloys SU 15: Manufacture of fabricated metal products, except machinery and equipment SU 16: Manufacture of computer, electronic and optical products, electrical equipment SU 17: General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment SU 18: Manufacture of furniture SU 19: Building and construction work SU 0: Other: Nace C25.9.3: Manufacture of wire products, chain and springs **Subsequent service life relevant for that use?:** yes

IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
			Article category related to subsequent service life (AC): AC 1: Vehicles AC 2: Machinery, mechanical appliances, electrical/electronic articles AC 3: Electrical batteries and accumulators AC 7: Metal articles
15	Cadmium (alloyed) powder manufacturing	as such (substance itself) in a mixture	**Process category (PROC):** PROC 3: Use in closed batch process (synthesis or formulation) PROC 9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing) PROC 27a: Production of metal powders (hot processes) PROC 27b: Production of metal powders (wet processes) PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities PROC 26: Handling of solid inorganic substances at ambient temperature **Market sector by type of chemical product:** PC 7: Base metals and alloys PC 14: Metal surface treatment products, including galvanic and electroplating products **Environmental release category (ERC):** ERC 1: Manufacture of substances ERC 2: Formulation of preparations **Sector of end use (SU):** SU 9: Manufacture of fine chemicals SU 14: Manufacture of basic metals, including alloys SU 16: Manufacture of computer, electronic and optical products, electrical equipment **Subsequent service life relevant for that use?:** yes
16	Powders for contact materials	as such (substance itself) in a mixture	**Process category (PROC):** 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 24: High (mechanical) energy work-up of substances bound in materials and/or articles **Market sector by type of chemical product:** PC 7: Base metals and alloys PC 14: Metal surface treatment products, including galvanic and electroplating products

IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
			Environmental release category (ERC): ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles ERC 5: Industrial use resulting in inclusion into or onto a matrix **Sector of end use (SU):** SU 9: Manufacture of fine chemicals SU 14: Manufacture of basic metals, including alloys SU 16: Manufacture of computer, electronic and optical products, electrical equipment **Subsequent service life relevant for that use?:** yes
17	Use of active powders for batteries	as such (substance itself) in a mixture	**Process category (PROC):** PROC 5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact) **Market sector by type of chemical product:** PC 7: Base metals and alloys **Environmental release category (ERC):** ERC 3: Formulation in materials ERC 5: Industrial use resulting in inclusion into or onto a matrix **Sector of end use (SU):** SU 9: Manufacture of fine chemicals SU 14: Manufacture of basic metals, including alloys SU 16: Manufacture of computer, electronic and optical products, electrical equipment SU 0: Other: Nace C27.2: Manufacture of batteries and accumulators **Subsequent service life relevant for that use?:** yes **Article category related to subsequent service life (AC):** AC 3: Electrical batteries and accumulators
18	Use of fine powders for mechanical plating	as such (substance itself) in a mixture	**Process category (PROC):** 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 24: High (mechanical) energy work-up of substances bound in materials and/or articles

IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
			Market sector by type of chemical product: PC 7: Base metals and alloys PC 14: Metal surface treatment products, including galvanic and electroplating products **Environmental release category (ERC):** ERC 2: Formulation of preparations ERC 5: Industrial use resulting in inclusion into or onto a matrix **Sector of end use (SU):** SU 14: Manufacture of basic metals, including alloys SU 15: Manufacture of fabricated metal products, except machinery and equipment SU 0: Other: Nace C25.6.1: Treatment and coating of metals **Subsequent service life relevant for that use?:** yes **Article category related to subsequent service life (AC):** AC 1: Vehicles AC 2: Machinery, mechanical appliances, electrical/electronic articles AC 3: Electrical batteries and accumulators AC 7: Metal articles
19	Manufacturing of Cadmium containing-alloys	as such (substance itself)	**Process category (PROC):** 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) PROC 22: Potentially closed processing operations with minerals/metals at elevated temperature. Industrial setting **Market sector by type of chemical product:** PC 7: Base metals and alloys **Environmental release category (ERC):** ERC 1: Manufacture of substances ERC 2: Formulation of preparations ERC 5: Industrial use resulting in inclusion into or onto a matrix **Sector of end use (SU):** SU 14: Manufacture of basic metals, including alloys

IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
			SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys) **Subsequent service life relevant for that use?:** yes
20	Use of cadmium containing alloys	in a mixture	**Process category (PROC):** PROC 6: Calendering operations PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities PROC 14: Production of preparations or articles by tabletting, compression, extrusion, pelletisation PROC 22: Potentially closed processing operations with minerals/metals at elevated temperature. Industrial setting PROC 25: Other hot work operations with metals PROC 26: Handling of solid inorganic substances at ambient temperature **Market sector by type of chemical product:** PC 7: Base metals and alloys **Environmental release category (ERC):** ERC 3: Formulation in materials ERC 5: Industrial use resulting in inclusion into or onto a matrix **Sector of end use (SU):** SU 14: Manufacture of basic metals, including alloys SU 15: Manufacture of fabricated metal products, except machinery and equipment SU 0: Other: Nace C24.5.3 - Casting of light metals **Subsequent service life relevant for that use?:** yes **Article category related to subsequent service life (AC):** AC 1: Vehicles AC 2: Machinery, mechanical appliances, electrical/electronic articles AC 3: Electrical batteries and accumulators AC 7: Metal articles
21	Electroplating	as such (substance itself) in a mixture	**Process category (PROC):** 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 13: Treatment of articles by dipping and pouring

IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
			PROC 21: Low energy manipulation of substances bound in materials and/or articles **Market sector by type of chemical product:** PC 7: Base metals and alloys PC 14: Metal surface treatment products, including galvanic and electroplating products **Environmental release category (ERC):** ERC 2: Formulation of preparations ERC 5: Industrial use resulting in inclusion into or onto a matrix **Sector of end use (SU):** 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 **Subsequent service life relevant for that use?:** yes **Article category related to subsequent service life (AC):** AC 1: Vehicles AC 2: Machinery, mechanical appliances, electrical/electronic articles AC 3: Electrical batteries and accumulators AC 7: Metal articles
22	PVD / coating	as such (substance itself) in a mixture	**Process category (PROC):** PROC 1: Use in closed process, no likelihood of exposure PROC 2: Use in closed, continuous process with occasional controlled exposure PROC 22: Potentially closed processing operations with minerals/metals at elevated temperature. Industrial setting **Market sector by type of chemical product:** PC 7: Base metals and alloys **Environmental release category (ERC):** 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 **Sector of end use (SU):** SU 15: Manufacture of fabricated metal products, except machinery and equipment SU 0: Other: Nace C25.6.1: Treatment and coating of metals

IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
			Subsequent service life relevant for that use?: yes **Article category related to subsequent service life (AC):** AC 2: Machinery, mechanical appliances, electrical/electronic articles AC 7: Metal articles

Uses by professional workers

IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
13	Downstream use of Cadmium based brazing products	in a mixture	**Process category (PROC):** PROC 21: Low energy manipulation of substances bound in materials and/or articles PROC 25: Other hot work operations with metals **Market sector by type of chemical product:** PC 7: Base metals and alloys PC 38: Welding and soldering products (with flux coatings or flux cores.), flux products **Environmental release category (ERC):** 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 **Sector of end use (SU):** SU 14: Manufacture of basic metals, including alloys SU 15: Manufacture of fabricated metal products, except machinery and equipment SU 16: Manufacture of computer, electronic and optical products, electrical equipment SU 17: General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment SU 18: Manufacture of furniture SU 19: Building and construction work SU 0: Other:Nace C25.9.3: Manufacture of wire products, chain and springs **Subsequent service life relevant for that use?:** yes **Article category related to subsequent service life (AC):**
14	Downstream use of cadmium-based soldering products	in a mixture	**Process category (PROC):** PROC 21: Low energy manipulation of substances bound in materials and/or articles PROC 25: Other hot work operations with metals **Market sector by type of chemical product:** PC 7: Base metals and alloys PC 38: Welding and soldering products (with flux coatings or flux cores.), flux products **Environmental release category (ERC):** 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 **Sector of end use (SU):**

IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
			SU 14: Manufacture of basic metals, including alloys SU 15: Manufacture of fabricated metal products, except machinery and equipment SU 16: Manufacture of computer, electronic and optical products, electrical equipment SU 17: General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment SU 18: Manufacture of furniture SU 19: Building and construction work SU 0: Other:Nace C25.9.3: Manufacture of wire products, chain and springs **Subsequent service life relevant for that use?:** yes **Article category related to subsequent service life (AC):**
22	PVD / coating	as such (substance itself) in a mixture	**Process category (PROC):** PROC 1: Use in closed process, no likelihood of exposure PROC 2: Use in closed, continuous process with occasional controlled exposure PROC 22: Potentially closed processing operations with minerals/metals at elevated temperature. Industrial setting **Market sector by type of chemical product:** PC 7: Base metals and alloys **Environmental release category (ERC):** 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 **Sector of end use (SU):** SU 15: Manufacture of fabricated metal products, except machinery and equipment SU 0: Other:Nace C25.6.1: Treatment and coating of metals **Subsequent service life relevant for that use?:** yes **Article category related to subsequent service life (AC):**