2.1. Manufacture

Table 2.2. Manufacture

	Manufacture
M-1	**Manufacture of TKPP** Further description of manufacturing process: Phosphoric acid and potassium hydroxide are mixed under neutralisation in the relevant ratio under heating, going through a rotary kiln. Steps after cooling are milling, sieving and packaging. Contributing activity/technique for the environment : **- Manufacture of the substance (ERC1)** Contributing activity/technique for the workers : **- Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions (PROC 1)** **- Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions (PROC 2)** **- Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition (PROC 3)** **- Chemical production where opportunity for exposure arises (PROC 4)** **- Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC 8b)** **- Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC 9)** **- Handling of solid inorganic substances at ambient temperature (PROC 26)** use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Related assessment: use assessed in a joint CSR

2.2. Identified uses

Table 2.3. Formulation

	Formulation
F-1	**Formulation of mixtures containing TKPP** Further description of the use: Contributing activity/technique for the environment : **- Formulation into mixture (ERC2)** Contributing activity/technique for the workers : **- Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions (PROC 1)** **- Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions (PROC 2)** **- Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition (PROC 3)** **- Chemical production where opportunity for exposure arises (PROC 4)** **- Mixing or blending in batch processes (PROC 5)** **- Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC 8a)** **- Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC 8b)** **- Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC 9)** **- Tabletting, compression, extrusion, pelletisation, granulation (PROC 14)**

	- Use as laboratory reagent (PROC 15) **- Handling of solid inorganic substances at ambient temperature (PROC 26)** **- Manual maintenance (cleaning and repair) of machinery (PROC28)** **Product Category formulated:** PC 1: Adhesives, sealants ; PC 9a: Coatings and paints, thinners, paint removes ; PC 9b: Fillers, putties, plasters, modelling clay ; PC 12: Fertilisers ; PC 14: Metal surface treatment products ; PC 16: Heat transfer fluids ; PC 17: Hydraulic fluids ; PC 18: Ink and toners ; PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents ; PC 21: Laboratory chemicals ; PC 23: Leather treatment products ; PC 29: Pharmaceuticals ; PC 32: Polymer preparations and compounds ; PC 34: Textile dyes, and impregnating products ; PC 35: Washing and cleaning products ; PC 36: Water softeners ; PC 37: Water treatment chemicals ; PC 39: Cosmetics, personal care products **Technical function of the substance:** no technical function use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Substance supplied to that use: as such ; in a mixture Related assessment: use assessed in a joint CSR
F-2	**Formulation of materials containing TKPP** <u>Further description of the use:</u> Contributing activity/technique for the environment : **- Formulation into materials (ERC3)** Contributing activity/technique for the workers : **- Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions (PROC 1)** **- Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions (PROC 2)** **- Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition (PROC 3)** **- Chemical production where opportunity for exposure arises (PROC 4)** **- Mixing or blending in batch processes (PROC 5)** **- Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC 8b)** **- Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC 9)** **- Treatment of articles by dipping and pouring (PROC 13)** **- Tabletting, compression, extrusion, pelletisation, granulation (PROC 14)** **- Handling of solid inorganic substances at ambient temperature (PROC 26)** **Product Category formulated:** PC 1: Adhesives, sealants ; PC 9a: Coatings and paints, thinners, paint removes ; PC 9b: Fillers, putties, plasters, modelling clay ; PC 12: Fertilisers ; PC 14: Metal surface treatment products ; PC 16: Heat transfer fluids ; PC 17: Hydraulic fluids ; PC 18: Ink and toners ; PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents ; PC 21: Laboratory chemicals ; PC 23: Leather treatment products ; PC 29: Pharmaceuticals ; PC 32: Polymer preparations and compounds ; PC 34: Textile dyes, and impregnating products ; PC 35: Washing and cleaning products ; PC 36: Water softeners ; PC 37: Water treatment chemicals ; PC 39: Cosmetics, personal care products **Technical function of the substance:** no technical function use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Substance supplied to that use: as such ; in a mixture Related assessment: use assessed in a joint CSR

Table 2.4. Uses at industrial sites

	Uses at industrial sites
IW-1	**Industrial use as a binding agent in ceramic materials and in ceramics, cement and plasters**

	Further description of the use: Contributing activity/technique for the environment : **- Use at industrial site leading to inclusion into/onto article (ERC5)** Contributing activity/technique for the workers : **- Mixing or blending in batch processes (PROC 5)** **- Industrial spraying (PROC 7)** **- Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC 8a)** **- Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC 8b)** **- Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC 9)** **- Roller application or brushing (PROC 10)** **- Treatment of articles by dipping and pouring (PROC 13)** **- Tabletting, compression, extrusion, pelletisation, granulation (PROC 14)** **- Manual activities involving hand contact (PROC 19)** **- Manufacturing and processing of minerals and/or metals at substantially elevated temperature (PROC 22)** **- Open processing and transfer operations at substantially elevated temperature (PROC 23)** **- Handling of solid inorganic substances at ambient temperature (PROC 26)** **Product Category used:** PC 9b: Fillers, putties, plasters, modelling clay **Sector of end use:** SU 13: Manufacture of other non-metallic mineral products, e.g. plasters, cement ; SU 19: Building and construction work **Technical function of the substance:** binder ; processing aid use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Substance supplied to that use: as such ; in a mixture Subsequent service life relevant for that use: yes Link to the subsequent service life: Industrial service life of ceramic articles or articles containing cement, refractories or plaster ; Professional service life of ceramic articles or articles containing cement, refractories or plaster ; Consumer service life of ceramic articles or articles containing cement, refractories or plaster Related assessment: use assessed in a joint CSR
IW-2	**Industrial use as an additive/pigment/auxiliary in plastics, resins, paints, coatings, mastics and inks** Further description of the use: Contributing activity/technique for the environment : **- Use at industrial site leading to inclusion into/onto article (ERC5)** Contributing activity/technique for the workers : **- Mixing or blending in batch processes (PROC 5)** **- Calendering operations (PROC 6)** **- Industrial spraying (PROC 7)** **- Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC 8a)** **- Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC 8b)** **- Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC 9)** **- Roller application or brushing (PROC 10)** **- Treatment of articles by dipping and pouring (PROC 13)** **- Tabletting, compression, extrusion, pelletisation, granulation (PROC 14)** **- Manual activities involving hand contact (PROC 19)** **- Handling of solid inorganic substances at ambient temperature (PROC 26)** **Product Category used:** PC 1: Adhesives, sealants ; PC 9a: Coatings and paints, thinners, paint removes ; PC 9b: Fillers, putties, plasters, modelling clay ; PC 18: Ink and toners ; PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents ; PC 32: Polymer preparations

	and compounds **Sector of end use:** SU 6a: Manufacture of wood and wood products ; SU 6b: Manufacture of pulp, paper and paper products ; SU 12: Manufacture of plastics products, including compounding and conversion **Technical function of the substance:** processing aid use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Substance supplied to that use: as such ; in a mixture Subsequent service life relevant for that use: yes Link to the subsequent service life: Industrial service life of paper, wood and plastic articles ; Professional service life of paper, wood and plastic articles ; Consumer service life of wood articles ; Consumer service life of paper articles ; Consumer service life of plastic articles Related assessment: use assessed in a joint CSR
IW-3	**Industrial use as an intermediate, including use of a raw material for the synthesis of a new fertilizer substance.** Further description of the use: Contributing activity/technique for the environment : **- Industrial use as an intermediate (ERC6a)** Contributing activity/technique for the workers : **- Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions (PROC 1)** **- Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions (PROC 2)** **- Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition (PROC 3)** **- Chemical production where opportunity for exposure arises (PROC 4)** **- Mixing or blending in batch processes (PROC 5)** **- PROC 8a: Transfer of substance or mixture (charging and discharging) at non-dedicated facilities** **- Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC 8b)** **- Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC 9)** **- Handling of solid inorganic substances at ambient temperature (PROC 26)** **Product Category used:** PC 12: Fertilisers **Sector of end use:** SU 8: Manufacture of bulk, large scale chemicals (including petroleum products) ; SU 9: Manufacture of fine chemicals **Technical function of the substance:** intermediate (precursor) use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Substance supplied to that use: as such ; in a mixture Subsequent service life relevant for that use: no Related assessment: use assessed in a joint CSR
IW-4	**Industrial use as a reactive processing aid in chemical synthesis** Further description of the use: Contributing activity/technique for the environment : **- Use as a reactive processing aid at industrial site (no inclusion into or onto article) (ERC6b)** Contributing activity/technique for the workers : **- Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions (PROC 1)** **- Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions (PROC 2)** **- Manufacture or formulation in the chemical industry in closed batch processes with**

	occasional controlled exposure or processes with equivalent containment condition (PROC 3) **- Chemical production where opportunity for exposure arises (PROC 4)** **- Mixing or blending in batch processes (PROC 5)** **- Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC 8b)** **- Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC 9)** **- Handling of solid inorganic substances at ambient temperature (PROC 26)** **Product Category used:** PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents **Sector of end use:** SU 8: Manufacture of bulk, large scale chemicals (including petroleum products) ; SU 9: Manufacture of fine chemicals **Technical function of the substance:** processing aid use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Substance supplied to that use: as such ; in a mixture Subsequent service life relevant for that use: no Related assessment: use assessed in a joint CSR
IW-5	**Industrial use in metal surface treatment** Further description of the use: Contributing activity/technique for the environment : **- Use of non-reactive processing aid at industrial site (no inclusion into or onto article) (ERC4)** Contributing activity/technique for the workers : **- Chemical production where opportunity for exposure arises (PROC 4)** **- Industrial spraying (PROC 7)** **- Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC 8a)** **- Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC 8b)** **- Roller application or brushing (PROC 10)** **- Treatment of articles by dipping and pouring (PROC 13)** **- Manual activities involving hand contact (PROC 19)** **- Handling of solid inorganic substances at ambient temperature (PROC 26)** **Product Category used:** PC 14: Metal surface treatment products **Sector of end use:** SU 14: Manufacture of basic metals, including alloys ; SU 15: Manufacture of fabricated metal products, except machinery and equipment ; SU 17: General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment **Technical function of the substance:** antiscaling agent ; corrosion inhibitor ; finishing agents use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Substance supplied to that use: as such ; in a mixture Subsequent service life relevant for that use: no Related assessment: use assessed in a joint CSR
IW-6	**Industrial use in metal surface treatment** Further description of the use: Contributing activity/technique for the environment : **- Use of non-reactive processing aid at industrial site (no inclusion into or onto article) (ERC5)** Contributing activity/technique for the workers : **- Chemical production where opportunity for exposure arises (PROC 4)** **- Industrial spraying (PROC 7)** **- Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC 8a)**

	- Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC 8b) **- Roller application or brushing (PROC 10)** **- Treatment of articles by dipping and pouring (PROC 13)** **- Manual activities involving hand contact (PROC 19)** **- Handling of solid inorganic substances at ambient temperature (PROC 26)** **Product Category used:** PC 14: Metal surface treatment products **Sector of end use:** SU 14: Manufacture of basic metals, including alloys ; SU 15: Manufacture of fabricated metal products, except machinery and equipment ; SU 17: General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment **Technical function of the substance:** antiscaling agent ; corrosion inhibitor ; finishing agents use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Substance supplied to that use: as such ; in a mixture Subsequent service life relevant for that use: no Related assessment: use assessed in a joint CSR
IW-7	**Industrial use in dyes and auxiliary chemicals for textiles and leather** Further description of the use: Contributing activity/technique for the environment : **- Use at industrial site leading to inclusion into/onto article (ERC5)** Contributing activity/technique for the workers : **- Mixing or blending in batch processes (PROC 5)** **- Calendering operations (PROC 6)** **- Industrial spraying (PROC 7)** **- Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC 8a)** **- Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC 8b)** **- Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC 9)** **- Roller application or brushing (PROC 10)** **- Treatment of articles by dipping and pouring (PROC 13)** **- Manual activities involving hand contact (PROC 19)** **Product Category used:** PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents ; PC 23: Leather treatment products ; PC 34: Textile dyes, and impregnating products **Sector of end use:** SU 5: Manufacture of textiles, leather, fur **Technical function of the substance:** processing aid use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Substance supplied to that use: as such ; in a mixture Subsequent service life relevant for that use: yes Link to the subsequent service life: Consumer service life of leather articles ; Consumer service life of textile articles ; Professional service life of leather and textile articles ; Industrial service life of leather and textile articles Related assessment: use assessed in a joint CSR
IW-8	**Industrial use in water and wastewater treatment** Further description of the use: Contributing activity/technique for the environment : **- Use of non-reactive processing aid at industrial site (no inclusion into or onto article) (ERC4)** Contributing activity/technique for the workers : **- Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions (PROC 1)** **- Chemical production or refinery in closed continuous process with occasional controlled**

	exposure or processes with equivalent containment conditions (PROC 2) **- Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC 8b)** **- Manual activities involving hand contact (PROC 19)** **- Handling of solid inorganic substances at ambient temperature (PROC 26)** **Product Category used:** PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents ; PC 36: Water softeners ; PC 37: Water treatment chemicals **Sector of end use:** SU 23: Electricity, steam, gas water supply and sewage treatment **Technical function of the substance:** corrosion inhibitor use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Substance supplied to that use: as such ; in a mixture Subsequent service life relevant for that use: no Related assessment: use assessed in a joint CSR
IW-9	**Industrial use in washing and cleaning products** Further description of the use: Contributing activity/technique for the environment : **- Use of non-reactive processing aid at industrial site (no inclusion into or onto article) (ERC4)** Contributing activity/technique for the workers : **- PROC 1: Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions** **- PROC 2: Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions** **- PROC 4: Chemical production where opportunity for exposure arises** **- Mixing or blending in batch processes (PROC 5)** **- Industrial spraying (PROC 7)** **- Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC 8a)** **- Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC 8b)** **- Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC 9)** **- Roller application or brushing (PROC 10)** **- Treatment of articles by dipping and pouring (PROC 13)** **- Manual activities involving hand contact (PROC 19)** **- PROC28: Manual maintenance (cleaning and repair) of machinery** **Product Category used:** PC 35: Washing and cleaning products **Sector of end use:** SU 1: Agriculture, forestry and fishing ; SU 2a: Mining (without offshore industries) ; SU 2b: Offshore industries ; SU 4: Manufacture of food products ; SU 5: Manufacture of textiles, leather, fur ; SU 6a: Manufacture of wood and wood products ; SU 6b: Manufacture of pulp, paper and paper products ; SU 7: Printing and reproduction of recorded media ; SU 8: Manufacture of bulk, large scale chemicals (including petroleum products) ; SU 9: Manufacture of fine chemicals ; SU 11: Manufacture of rubber products ; SU 12: Manufacture of plastics products, including compounding and conversion ; SU 13: Manufacture of other non-metallic mineral products, e.g. plasters, cement ; 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 20: Health services ; SU 23: Electricity, steam, gas water supply and sewage treatment ; SU 24: Scientific research and development ; SU 0: Other: Washing and cleaning services **Technical function of the substance:** antiredeposition agent ; cleaning agent ; dispersing agent use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Substance supplied to that use: as such ; in a mixture

	Subsequent service life relevant for that use: no Related assessment: use assessed in a joint CSR
IW-10	**Industrial oil well and other drilling fluid applications, liquefying and conditioning earths, muds, clays** Further description of the use: Contributing activity/technique for the environment : **- Use of non-reactive processing aid at industrial site (no inclusion into or onto article) (ERC4)** Contributing activity/technique for the workers : **- Mixing or blending in batch processes (PROC 5)** **- Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC 8b)** **- Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC 9)** **- Treatment of articles by dipping and pouring (PROC 13)** **- General greasing/lubrication at high kinetic energy conditions (PROC 18)** **- Handling of solid inorganic substances at ambient temperature (PROC 26)** **Product Category used:** PC 17: Hydraulic fluids ; PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents **Sector of end use:** SU 2a: Mining (without offshore industries) ; SU 2b: Offshore industries **Technical function of the substance:** dispersing agent ; processing aid use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Substance supplied to that use: as such ; in a mixture Subsequent service life relevant for that use: no Related assessment: use assessed in a joint CSR
IW-11	**Uses as a Coolant Additive at industrial sites** Further description of the use: Filter containing the substance is attached to a diesel engine cooling system. The coolant is charged which dissolves the substance where it functions as a corrosion inhibitor in use. Contributing activity/technique for the environment : **- ERC5: Use at industrial site leading to inclusion into/onto article** **- ERC7: Use of functional fluid at industrial site** Contributing activity/technique for the workers : **- Installation and maintenance of diesel engine coolant system (PROC 5 ; PROC 8b ; PROC28)** **Product Category used:** PC 4: Anti-freeze and de-icing products **Sector of end use:** SU 17: General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment **Technical function of the substance:** corrosion inhibitor use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Substance supplied to that use: in a mixture Subsequent service life relevant for that use: yes Link to the subsequent service life: Service life - Replenish coolant system Related assessment: use assessed in a joint CSR but not a lead's own use

Table 2.5. Uses by professional workers

	Uses by professional workers
PW-1	**Professional use as a binding agent in ceramic materials and in ceramics, cement and plasters**

	Further description of the use: Contributing activity/technique for the environment : **- Widespread use leading to inclusion into/onto article (ERC8c ; ERC8f)** Contributing activity/technique for the workers : **- Mixing or blending in batch processes (PROC 5)** **- Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC 8a)** **- Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC 9)** **- Roller application or brushing (PROC 10)** **- Non industrial spraying (PROC 11)** **- Treatment of articles by dipping and pouring (PROC 13)** **- Tabletting, compression, extrusion, pelletisation, granulation (PROC 14)** **- Manual activities involving hand contact (PROC 19)** **- Manufacturing and processing of minerals and/or metals at substantially elevated temperature (PROC 22)** **- Open processing and transfer operations at substantially elevated temperature (PROC 23)** **- Handling of solid inorganic substances at ambient temperature (PROC 26)** **Product Category used:** PC 9b: Fillers, putties, plasters, modelling clay **Sector of end use:** SU 13: Manufacture of other non-metallic mineral products, e.g. plasters, cement ; SU 19: Building and construction work **Technical function of the substance:** binder ; processing aid use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Subsequent service life relevant for that use: yes Link to the subsequent service life: Professional service life of ceramic articles or articles containing cement, refractories or plaster ; Consumer service life of ceramic articles or articles containing cement, refractories or plaster Related assessment: use assessed in a joint CSR
PW-2	**Professional use as an additive/pigment/auxiliary in plastics, resins, paints, coatings, mastics and inks** Further description of the use: Contributing activity/technique for the environment : **- Widespread use leading to inclusion into/onto article (ERC8c ; ERC8f)** Contributing activity/technique for the workers : **- Mixing or blending in batch processes (PROC 5)** **- Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC 8a)** **- Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC 9)** **- Roller application or brushing (PROC 10)** **- Non industrial spraying (PROC 11)** **- Treatment of articles by dipping and pouring (PROC 13)** **- Manual activities involving hand contact (PROC 19)** **Product Category used:** PC 1: Adhesives, sealants ; PC 9a: Coatings and paints, thinners, paint removes ; PC 9b: Fillers, putties, plasters, modelling clay ; PC 18: Ink and toners ; PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents ; PC 32: Polymer preparations and compounds **Sector of end use:** SU 6a: Manufacture of wood and wood products ; SU 6b: Manufacture of pulp, paper and paper products ; SU 12: Manufacture of plastics products, including compounding and conversion **Technical function of the substance:** processing aid use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Subsequent service life relevant for that use: yes

	Link to the subsequent service life: Professional service life of paper, wood and plastic articles ; Consumer service life of wood articles ; Consumer service life of plastic articles ; Consumer service life of paper articles Related assessment: use assessed in a joint CSR
PW-3	**Professional use as a laboratory reagent - intermediate** Further description of the use: Contributing activity/technique for the environment : **- Widespread use of reactive processing aid (no inclusion into or onto article) (ERC8b)** Contributing activity/technique for the workers : **- Use as laboratory reagent (PROC 15)** **Product Category used:** PC 21: Laboratory chemicals **Sector of end use:** SU 9: Manufacture of fine chemicals ; SU 24: Scientific research and development **Technical function of the substance:** intermediate (precursor) use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Subsequent service life relevant for that use: no Related assessment: use assessed in a joint CSR
PW-4	**Professional use as a laboratory reagent - processing aid** Further description of the use: Contributing activity/technique for the environment : **- Widespread use of reactive processing aid (no inclusion into or onto article) (ERC8b)** Contributing activity/technique for the workers : **- Use as laboratory reagent (PROC 15)** **Product Category used:** PC 21: Laboratory chemicals **Sector of end use:** SU 9: Manufacture of fine chemicals ; SU 24: Scientific research and development **Technical function of the substance:** processing aid use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Subsequent service life relevant for that use: no Related assessment: use assessed in a joint CSR
PW-5	**Professional use for metal surface treatment** Further description of the use: Contributing activity/technique for the environment : **- Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) (ERC8a)** Contributing activity/technique for the workers : **- Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC 8a)** **- Roller application or brushing (PROC 10)** **- Non industrial spraying (PROC 11)** **- Treatment of articles by dipping and pouring (PROC 13)** **- Manual activities involving hand contact (PROC 19)** **- Handling of solid inorganic substances at ambient temperature (PROC 26)** **Product Category used:** PC 14: Metal surface treatment products **Sector of end use:** SU 14: Manufacture of basic metals, including alloys ; SU 15: Manufacture of fabricated metal products, except machinery and equipment ; SU 17: General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment **Technical function of the substance:** antiscaling agent ; corrosion inhibitor ; finishing agents use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Subsequent service life relevant for that use: no

	Related assessment: use assessed in a joint CSR
PW-6	**Professional use in water and wastewater treatment** Further description of the use: Contributing activity/technique for the environment : **- Widespread use of non-reactive processing aid (no inclusion into or onto article) (ERC8a ; ERC8d)** Contributing activity/technique for the workers : **- Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC 8a)** **- Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC 8b)** **- Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC 9)** **- Manual activities involving hand contact (PROC 19)** **- Handling of solid inorganic substances at ambient temperature (PROC 26)** **Product Category used:** PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents ; PC 36: Water softeners ; PC 37: Water treatment chemicals **Sector of end use:** SU 23: Electricity, steam, gas water supply and sewage treatment **Technical function of the substance:** corrosion inhibitor use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Subsequent service life relevant for that use: no Related assessment: use assessed in a joint CSR
PW-7	**Professional use in washing and cleaning products** Further description of the use: Contributing activity/technique for the environment : **- Widespread use of non-reactive processing aid (no inclusion into or onto article) (ERC8a ; ERC8d)** Contributing activity/technique for the workers : **- PROC 1: Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions** **- PROC 2: Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions** **- PROC 4: Chemical production where opportunity for exposure arises** **- Mixing or blending in batch processes (PROC 5)** **- Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC 8a)** **- Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC 8b)** **- Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC 9)** **- Roller application or brushing (PROC 10)** **- Non industrial spraying (PROC 11)** **- Treatment of articles by dipping and pouring (PROC 13)** **- Manual activities involving hand contact (PROC 19)** **Product Category used:** PC 35: Washing and cleaning products **Sector of end use:** SU 1: Agriculture, forestry and fishing ; SU 2a: Mining (without offshore industries) ; SU 2b: Offshore industries ; SU 4: Manufacture of food products ; SU 5: Manufacture of textiles, leather, fur ; SU 6a: Manufacture of wood and wood products ; SU 6b: Manufacture of pulp, paper and paper products ; SU 7: Printing and reproduction of recorded media ; SU 8: Manufacture of bulk, large scale chemicals (including petroleum products) ; SU 9: Manufacture of fine chemicals ; SU 11: Manufacture of rubber products ; SU 12: Manufacture of plastics products, including compounding and conversion ; SU 13: Manufacture of other non-metallic mineral products, e.g. plasters, cement ; 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 20: Health services ; SU 23: Electricity, steam, gas water supply and sewage treatment ; SU 24: Scientific research and development ; SU 0: Other: Washing and cleaning services **Technical function of the substance:** antiredeposition agent ; cleaning agent ; dispersing agent use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Subsequent service life relevant for that use: no Related assessment: use assessed in a joint CSR
PW-8	**Professional use as a fertiliser** Further description of the use: Mixing and loading of liquid or solid fertilisers into the equipment and applying with different techniques (spreading, spraying, fertigation etc) for the crop by farmers, growers and contractors Contributing activity/technique for the environment : **- Widespread use of reactive processing aid (no inclusion into or onto article) (ERC8b ; ERC8e)** Contributing activity/technique for the workers : **- Mixing or blending in batch processes (PROC 5)** **- Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC 8a)** **- Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC 8b)** **- Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC 9)** **- Non industrial spraying (PROC 11)** **- Use as laboratory reagent (PROC 15)** **- Manual activities involving hand contact (PROC 19)** **- Handling of solid inorganic substances at ambient temperatures (PROC 26)** **Product Category used:** PC 12: Fertilisers **Sector of end use:** SU 1: Agriculture, forestry and fishing **Technical function of the substance:** fertilisers (soil amendments) use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Subsequent service life relevant for that use: no Related assessment: use assessed in a joint CSR
PW-9	**Widespread uses as a Coolant Additive by professional workers .** Further description of the use: Diesel engine coolant maintenance including draining of old coolant and replacement of filter containing subs tance and recharge of coolant. Contributing activity/technique for the environment : **- Maintenance of dies el engine coolant system (ERC8b)** Contributing activity/technique for the workers : **- Maintenance of dies el engine coolant sys tem (PROC 5 ; PROC 8b ; PROC28)** **Product Category used:** PC 4: Anti-freeze and de-icing products **Sector of end use:** SU 17: General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment **Technical function of the substance:** corrosion inhibitor use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year

	Subsequent service life relevant for that use: yes Link to the subsequent service life: Service life - Replenish coolant system Related assessment: use assessed in a joint CSR but not a lead's own use

Table 2.6. Consumer uses

	Consumer uses
C-1	**Consumer use as a binding agent in ceramic materials and in ceramics, cement and plaster** Further description of the use: Contributing activity/technique for the environment: **- Widespread use leading to inclusion into/onto article (ERC8c ; ERC8f)** Contributing activity/technique for consumers: **- Fillers, putties, plasters, modelling clay (PC 9b)** **Technical function of the substance:** binder ; processing aid use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Subsequent service life relevant for that use: yes Link to the subsequent service life: Consumer service life of ceramic articles or articles containing cement, refractories or plaster Related assessment: use assessed in a joint CSR
C-2	**Consumer use of substance in paints, coatings, printing inks, mastics, plastics, resins etc** Further description of the use: Contributing activity/technique for the environment: **- Widespread use leading to inclusion into/onto article (ERC8c ; ERC8f)** Contributing activity/technique for consumers: **- Adhesives, sealants (PC 1)** **- Coatings and paints, thinners, paint removers (PC 9a)** **- Fillers, putties, plasters, modelling clay (PC 9b)** **- Ink and Toners (PC 18)** **- Processing aids such as pH-regulators, flocculants, precipitants, neutralisation agents (PC 20)** **- Polymer preparations and compounds (PC 32)** **Technical function of the substance:** processing aid use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Subsequent service life relevant for that use: yes Link to the subsequent service life: Consumer service life of wood articles ; Consumer service life of plastic articles ; Consumer service life of paper articles Related assessment: use assessed in a joint CSR
C-3	**Consumer use of washing and cleaning products** Further description of the use: Contributing activity/technique for the environment: **- Widespread use of non-reactive processing aid (no inclusion into or onto article) (ERC8a ; ERC8d)** Contributing activity/technique for consumers: **- Washing and cleaning products (PC 35)** **Technical function of the substance:** antiredeposition agent ; cleaning agent ; dispersing agent use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Subsequent service life relevant for that use: no Related assessment: use assessed in a joint CSR

C-4	**Consumer use as a fertiliser** Further description of the use: Contributing activity/technique for the environment: **- Widespread use of reactive processing aid (no inclusion into or onto article) (ERC8b ; ERC8e)** Contributing activity/technique for consumers: **- Fertilisers (PC 12)** **Technical function of the substance:** fertilisers (soil amendments) use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Subsequent service life relevant for that use: no Related assessment: use assessed in a joint CSR
C-5	**Consumer use of cosmetics, dentrifice and oral care products** Further description of the use: Contributing activity/technique for the environment: **- Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) (ERC8a ; ERC8b)** Contributing activity/technique for consumers: **- Cosmetics, personal care products (PC 39)** **Technical function of the substance:** processing aid use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Subsequent service life relevant for that use: no Related assessment: use assessed in a joint CSR
C-6	**Consumer use in food, animal feeds, medical and pharmaceutical products** Further description of the use: Listed for supply chain information, exempted from REACH Contributing activity/technique for the environment: **- Widespread use of non-reactive processing aid (no inclusion into or onto article) (ERC8a ; ERC8d)** Contributing activity/technique for consumers: **- Pharmaceuticals (PC 29)** **- Food and feed products (PC 0)** **Technical function of the substance:** no technical function use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Subsequent service life relevant for that use: no Related assessment: use not assessed
C-7	**Consumer use as a coolant additive** Further description of the use: Replacement of spent coolant and coolant filter. Contributing activity/technique for the environment: **- ERC8b: Widespread use of reactive processing aid (no inclusion into or onto article, indoor)** Contributing activity/technique for consumers: **- PC 4: Anti-freeze and de-icing products** **Technical function of the substance:** corrosion inhibitor use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant

	Tonnage of substance for that use: tonnes/year Subsequent service life relevant for that use: yes Link to the subsequent service life: Service life - Replenish coolant system Related assessment: use assessed in a joint CSR but not a lead's own use

Table 2.7. Article service life

	Article service life
SL-1	**Industrial service life of ceramic articles or articles containing cement, refractories or plaster** Further description of the use: Article used by: workers Substance intended to be released from article: no **Article category related to subsequent service life (AC):** AC 4: Stone, plaster, cement, glass and ceramic articles Contributing activity/technique for the environment: **- Processing of articles at industrial sites with low release (ERC12a)** Contributing activity/technique for consumers: Contributing activity/technique for the workers: **- Low energy manipulation and handling of substances bound in/on materials or articles (PROC 21)** **Technical function of the substance:** no technical function use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Related assessment: use assessed in a joint CSR
SL-2	**Professional service life of ceramic articles or articles containing cement, refractories or plaster** Further description of the use: Article used by: workers Substance intended to be released from article: no **Article category related to subsequent service life (AC):** AC 4: Stone, plaster, cement, glass and ceramic articles Contributing activity/technique for the environment: **- Widespread use of articles with low release (ERC10a ; ERC11a)** Contributing activity/technique for consumers: Contributing activity/technique for the workers: **- Low energy manipulation and handling of substances bound in/on materials or articles (PROC 21)** **Technical function of the substance:** no technical function use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Related assessment: use assessed in a joint CSR
SL-3	**Consumer service life of ceramic articles or articles containing cement, refractories or plaster** Further description of the use: Article used by: consumers Substance intended to be released from article: no **Article category related to subsequent service life (AC):** Contributing activity/technique for the environment: **- Widespread use of articles with low release (ERC10a ; ERC11a)** Contributing activity/technique for consumers: **- Stone, plaster, cement, glass and ceramic articles (AC 4)** Contributing activity/technique for the workers: **Technical function of the substance:** no technical function use registered according to REACH Article 10; total tonnage manufactured/imported

	>=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Related assessment: use assessed in a joint CSR
SL-4	**Industrial service life of paper, wood and plastic articles** Further description of the use: Article used by: workers Substance intended to be released from article: no **Article category related to subsequent service life (AC):** AC 8: Paper articles ; AC 11: Wood articles ; AC 13: Plastic articles Contributing activity/technique for the environment: **- Processing of articles at industrial sites with low release (ERC12a)** Contributing activity/technique for consumers: Contributing activity/technique for the workers: **- Low energy manipulation and handling of substances bound in/on materials or articles (PROC 21)** **Technical function of the substance:** no technical function use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Related assessment: use assessed in a joint CSR
SL-5	**Professional service life of paper, wood and plastic articles** Further description of the use: Article used by: workers Substance intended to be released from article: no **Article category related to subsequent service life (AC):** AC 4: Stone, plaster, cement, glass and ceramic articles Contributing activity/technique for the environment: **- Widespread use of articles with low release (ERC10a ; ERC11a)** Contributing activity/technique for consumers: Contributing activity/technique for the workers: **- Low energy manipulation and handling of substances bound in/on materials or articles (PROC 21)** **Technical function of the substance:** no technical function use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Related assessment: use assessed in a joint CSR
SL-6	**Consumer service life of paper articles** Further description of the use: Article used by: consumers Substance intended to be released from article: no **Article category related to subsequent service life (AC):** Contributing activity/technique for the environment: **- Widespread use of articles with low release (ERC10a ; ERC11a)** Contributing activity/technique for consumers: **- Paper articles (AC 8)** Contributing activity/technique for the workers: **Technical function of the substance:** no technical function use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Related assessment: use assessed in a joint CSR
SL-7	**Consumer service life of wood articles** Further description of the use:

	Article used by: consumers Substance intended to be released from article: no **Article category related to subsequent service life (AC):** Contributing activity/technique for the environment: **- Widespread use of articles with low release (ERC10a ; ERC11a)** Contributing activity/technique for consumers: **- Wood articles (AC 11)** Contributing activity/technique for the workers: **Technical function of the substance:** no technical function use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Related assessment: use assessed in a joint CSR
SL-8	**Consumer service life of plastic articles** Further description of the use: Article used by: consumers Substance intended to be released from article: no **Article category related to subsequent service life (AC):** Contributing activity/technique for the environment: **- Widespread use of articles with low release (ERC10a ; ERC11a)** Contributing activity/technique for consumers: **- Plastic articles (AC 13)** Contributing activity/technique for the workers: **Technical function of the substance:** no technical function use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Related assessment: use assessed in a joint CSR
SL-9	**Industrial service life of leather and textile articles** Further description of the use: Article used by: workers Substance intended to be released from article: no **Article category related to subsequent service life (AC):** AC 5: Fabrics, textiles and apparel ; AC 6: Leather articles Contributing activity/technique for the environment: **- Processing of articles at industrial sites with low release (ERC12a)** Contributing activity/technique for consumers: Contributing activity/technique for the workers: **- Low energy manipulation and handling of substances bound in/on materials or articles (PROC 21)** **Technical function of the substance:** no technical function use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Related assessment: use assessed in a joint CSR
SL-10	**Professional service life of leather and textile articles** Further description of the use: Article used by: workers Substance intended to be released from article: no **Article category related to subsequent service life (AC):** AC 5: Fabrics, textiles and apparel ; AC 6: Leather articles Contributing activity/technique for the environment: **- Widespread use of articles with low release (ERC10a ; ERC11a)** Contributing activity/technique for consumers: Contributing activity/technique for the workers: **- Low energy manipulation and handling of substances bound in/on materials or articles**

	(PROC 21) **Technical function of the substance:** no technical function use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Related assessment: use assessed in a joint CSR
SL-11	**Consumer service life of textile articles** Further description of the use: Article used by: consumers Substance intended to be released from article: no **Article category related to subsequent service life (AC):** Contributing activity/technique for the environment: **- Widespread use of articles with low release (ERC10a ; ERC11a)** Contributing activity/technique for consumers: **- Textile articles (AC 5)** Contributing activity/technique for the workers: **Technical function of the substance:** no technical function use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Related assessment: use assessed in a joint CSR
SL-12	**Consumer service life of leather articles** Further description of the use: Article used by: consumers Substance intended to be released from article: no **Article category related to subsequent service life (AC):** Contributing activity/technique for the environment: **- Widespread use of articles with low release (ERC10a ; ERC11a)** Contributing activity/technique for consumers: **- Leather articles (AC 6)** Contributing activity/technique for the workers: **Technical function of the substance:** no technical function use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year Related assessment: use assessed in a joint CSR
SL-13	**Replenish coolant system** Further description of the use: Spent coolant in vehicles is drained and discarded, new filters are installed in place of used filter and system is recharged with fresh coolant. Article used by: workers ; consumers Substance intended to be released from article: no **Article category related to subsequent service life (AC):** AC 1: Vehicles Contributing activity/technique for the environment: **- ERC12c: Use of articles at industrial sites with low release** **- ERC11a: Widespread use of articles with low release (indoor)** Contributing activity/technique for consumers: **- Replace spent coolant and coolant filter (AC 1)** Contributing activity/technique for the workers: **- Replace spent coolant and coolant filter (PROC 5 ; PROC 8b ; PROC28)** **Technical function of the substance:** corrosion inhibitor use registered according to REACH Article 10; total tonnage manufactured/imported >=10tonnes/year per registrant Tonnage of substance for that use: tonnes/year

	Related assessment: use assessed in a joint CSR but not a lead's own use