

# Identified uses of Zinc sulphate

(included in registration documentation)

## Information on uses

### Uses by workers in industrial settings

#### Zinc Sulphate production -Wet

**Process category** 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 22: Potentially closed processing operations with minerals/metals at elevated temperature. Industrial setting

PROC 26: Handling of solid inorganic substances at ambient temperature

**Environmental release category** ERC 1: Manufacture of substances

**Substance supplied to that use in form of** As such

**Market sector by type of chemical product** PC 19: Intermediate

PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents

PC 21: Laboratory chemicals

**Sector of end use** SU 9: Manufacture of fine chemicals

SU 8: Manufacture of bulk, large scale chemicals (including petroleum products)

**Subsequent service life relevant for that use?** yes

#### Component for production of inorganic zinc compounds

**Process category** 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 15: Use as laboratory reagent

**Environmental release category** ERC 1: Manufacture of substances

ERC 2: Formulation of preparations

ERC 6a: Industrial use resulting in manufacture of another substance (use of intermediates)

**Substance supplied to that use in form of** As such

In a mixture

**Market sector by type of chemical product** PC 19: Intermediate

PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents

PC 21: Laboratory chemicals

**Sector of end use** 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)

**Subsequent service life relevant for that use?** yes

## **Electrogalvanizing**

**Process category** PROC 21: Low energy manipulation of substances bound in materials and/or articles

PROC 13: Treatment of articles by dipping and pouring

**Environmental release category** ERC 2: Formulation of preparations

ERC 5: Industrial use resulting in inclusion into or onto a matrix

**Substance supplied to that use in form of** As such

**Market sector by type of chemical product** PC 7: Base metals and alloys

PC 14: Metal surface treatment products, including galvanic and electroplating products

**Sector of end use** 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 2: Machinery, mechanical appliances, electrical/electronic articles

AC 7: Metal articles

## **Electroplating**

**Process category** 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

**Environmental release category** ERC 2: Formulation of preparations

ERC 5: Industrial use resulting in inclusion into or onto a matrix

**Substance supplied to that use in form of** As such

**Market sector by type of chemical product** PC 7: Base metals and alloys

PC 14: Metal surface treatment products, including galvanic and electroplating products

**Sector of end use** 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 2: Machinery, mechanical appliances, electrical/electronic articles

AC 5: Fabrics, textiles and apparel

## Zinc production by electrowinning

**Process category** 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 22: Potentially closed processing operations with minerals/metals at elevated temperature. Industrial setting

PROC 26: Handling of solid inorganic substances at ambient temperature

**Environmental release category** ERC 1: Manufacture of substances

**Substance supplied to that use in form of** As such

**Market sector by type of chemical product** PC 7: Base metals and alloys

**Sector of end use** SU 14: Manufacture of basic metals, including alloys

SU 0: Other:

Nace C24.4.3: Lead, zinc and tin production , E38.3: Materials recovery

**Subsequent service life relevant for that use?** yes

### Laboratory reagent

**Process category** 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

**Environmental release category** 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

**Substance supplied to that use in form of** As such

**Market sector by type of chemical product** PC 19: Intermediate

PC 21: Laboratory chemicals

PC 28: Perfumes, fragrances

PC 39: Cosmetics, personal care products

**Sector of end use** SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)

SU 24: Scientific research and development

**Subsequent service life relevant for that use?** yes

### **Ore dressing (mining metallurgy)**

**Process category** 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 26: Handling of solid inorganic substances at ambient temperature

**Environmental release category** ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles

**Substance supplied to that use in form of** As such

In a mixture

**Market sector by type of chemical product** PC 2: Adsorbents

PC 15: Non-metal-surface treatment products

PC 19: Intermediate

PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents

PC 21: Laboratory chemicals

**Sector of end use** SU 2a: Mining (without offshore industries)

SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)

SU 0: Other:

Nace 7.2.9: Mining of other non-ferrous metal ores

**Subsequent service life relevant for that use?** yes

### **Zinc production by pyrometallurgy**

**Process category** 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 23: Open processing and transfer operations with minerals/metals at elevated temperature

PROC 26: Handling of solid inorganic substances at ambient temperature

**Environmental release category** ERC 1: Manufacture of substances

**Substance supplied to that use in form of** As such

**Market sector by type of chemical product** PC 7: Base metals and alloys

**Sector of end use** SU 14: Manufacture of basic metals, including alloys

SU 0: Other:

Nace C24.4.3: Lead, zinc and tin production , E38.3: Materials recovery

**Subsequent service life relevant for that use?** yes

### **Component for production of organic zinc compounds**

**Process category** 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

**Environmental release category** ERC 1: Manufacture of substances

ERC 2: Formulation of preparations

ERC 6a: Industrial use resulting in manufacture of another substance (use of intermediates)

**Substance supplied to that use in form of** As such

In a mixture

**Market sector by type of chemical product** 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

**Sector of end use** 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)

**Subsequent service life relevant for that use?** yes

### **Component for production of Inorganic pigments, i.e. Lithopones**

**Process category** 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

**Environmental release category** ERC 1: Manufacture of substances

ERC 2: Formulation of preparations

ERC 5: Industrial use resulting in inclusion into or onto a matrix

**Substance supplied to that use in form of** As such

In a mixture

**Market sector by type of chemical product** PC 9b: Fillers, putties, plasters, modelling clay

PC 9a: Coatings and paints, thinners, paint removes

PC 9c: Finger paints

**Sector of end use** 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

**Subsequent service life relevant for that use?** yes

### **Component for production of Coatings / paints, inks, enamels, varnishes**

**Process category** 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)

**Environmental release category** ERC 1: Manufacture of substances

ERC 2: Formulation of preparations

ERC 3: Formulation in materials

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 7: Industrial use of substances in closed systems

**Substance supplied to that use in form of** As such

In a mixture

**Market sector by type of chemical product** PC 1: Adhesives, sealants

PC 9a: Coatings and paints, thinners, paint removes

PC 9b: Fillers, putties, plasters, modelling clay

PC 9c: Finger paints

PC 14: Metal surface treatment products, including galvanic and electroplating products

PC 15: Non-metal-surface treatment products

PC 18: Ink and toners

PC 26: Paper and board dye, finishing and impregnation products: including bleaches and other processing aids

PC 32: Polymer preparations and compounds

**Sector of end use** SU 4: Manufacture of food products

SU 5: Manufacture of textiles, leather, fur

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 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

**Subsequent service life relevant for that use?** yes

### **Component for production of surface treatment preparations**

**Process category** 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 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

**Environmental release category** ERC 1: Manufacture of substances

ERC 2: Formulation of preparations

ERC 3: Formulation in materials

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 7: Industrial use of substances in closed systems

**Substance supplied to that use in form of** As such

In a mixture

**Market sector by type of chemical product** PC 1: Adhesives, sealants

PC 9a: Coatings and paints, thinners, paint removes

PC 9b: Fillers, putties, plasters, modelling clay

PC 9c: Finger paints

PC 14: Metal surface treatment products, including galvanic and electroplating products

PC 15: Non-metal-surface treatment products

PC 18: Ink and toners

PC 26: Paper and board dye, finishing and impregnation products: including bleaches and other processing aids

PC 32: Polymer preparations and compounds

**Sector of end use** SU 4: Manufacture of food products

SU 5: Manufacture of textiles, leather, fur

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 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

**Subsequent service life relevant for that use?** yes

### **Component for Paper coating**

**Process category** 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 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, including weighing)

PROC 13: Treatment of articles by dipping and pouring

**Environmental release category** ERC 2: Formulation of preparations

ERC 6b: Industrial use of reactive processing aids

**Substance supplied to that use in form of** As such

In a mixture

**Market sector by type of chemical product** PC 9a: Coatings and paints, thinners, paint removes

PC 15: Non-metal-surface treatment products

PC 18: Ink and toners

PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents

PC 21: Laboratory chemicals

PC 23: Leather tanning, dye, finishing, impregnation and care products

PC 34: Textile dyes, finishing and impregnating products; including bleaches and other processing aids

PC 35: Washing and cleaning products (including solvent based products)

**Sector of end use** 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 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)

**Subsequent service life relevant for that use?** yes

### **Component for Textile & leather coating / treatment**

**Process category** 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 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, including weighing)

PROC 13: Treatment of articles by dipping and pouring

**Environmental release category** ERC 2: Formulation of preparations

ERC 6b: Industrial use of reactive processing aids

**Substance supplied to that use in form of** As such

In a mixture

**Market sector by type of chemical product** PC 9a: Coatings and paints, thinners, paint removers

PC 15: Non-metal-surface treatment products

PC 19: Intermediate

PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents

PC 21: Laboratory chemicals

PC 23: Leather tanning, dye, finishing, impregnation and care products

PC 34: Textile dyes, finishing and impregnating products; including bleaches and other processing aids

PC 35: Washing and cleaning products (including solvent based products)

**Sector of end use** SU 5: Manufacture of textiles, leather, fur

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)

**Subsequent service life relevant for that use?** yes

### **Additive for the production of Lubricants / Grease / Metal working fluids**

**Process category** 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 10: Roller application or brushing

PROC 13: Treatment of articles by dipping and pouring

**Environmental release category** 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

ERC 6a: Industrial use resulting in manufacture of another substance (use of intermediates)

ERC 6d: Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers

ERC 8b: Wide dispersive indoor use of reactive substances in open systems

ERC 9a: Wide dispersive indoor use of substances in closed systems

ERC 9b: Wide dispersive outdoor use of substances in closed systems

ERC 11a: Wide dispersive indoor use of long-life articles and materials with low release

**Substance supplied to that use in form of** As such

In a mixture

**Market sector by type of chemical product** PC 14: Metal surface treatment products, including galvanic and electroplating products

PC 24: Lubricants, greases, release products

PC 25: Metal working fluids

PC 32: Polymer preparations and compounds

**Sector of end use** SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)

SU 18: Manufacture of furniture

**Subsequent service life relevant for that use?** yes

**Article category related to subsequent service life** AC 1: Vehicles

AC 2: Machinery, mechanical appliances, electrical/electronic articles

AC 7: Metal articles

## **Use of ZnSO<sub>4</sub>-containing catalysts**

**Process category** 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

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

**Environmental release category** 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

**Substance supplied to that use in form of** In a mixture

**Market sector by type of chemical product** 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

**Sector of end use** 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)

**Subsequent service life relevant for that use?** yes

### **Additive for the formulation of animal feedstuffs**

**Process category** 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)

**Environmental release category** ERC 2: Formulation of preparations

ERC 10a: Wide dispersive outdoor use of long-life articles and materials with low release

**Substance supplied to that use in form of** As such

In a mixture

**Market sector by type of chemical product** PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents

PC 29: Pharmaceuticals

**Sector of end use** SU 4: Manufacture of food products

**Subsequent service life relevant for that use?** yes

### **Additive for the formulation of biocidal products**

**Process category** 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)

**Environmental release category** ERC 2: Formulation of preparations

**Substance supplied to that use in form of** As such

In a mixture

**Market sector by type of chemical product** PC 8: Biocidal products (e.g. disinfectants, pest control)

PC 37: Water treatment chemicals

**Sector of end use** SU 9: Manufacture of fine chemicals

SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)

**Subsequent service life relevant for that use?** yes

### **Additive for the formulation of cleaning products**

**Process category** 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)

**Environmental release category** ERC 2: Formulation of preparations

ERC 8a: Wide dispersive indoor use of processing aids in open systems

ERC 8b: Wide dispersive indoor use of reactive substances in open systems

**Substance supplied to that use in form of** As such

In a mixture

**Market sector by type of chemical product** PC 8: Biocidal products (e.g. disinfectants, pest control)

PC 35: Washing and cleaning products (including solvent based products)

PC 37: Water treatment chemicals

**Sector of end use** SU 9: Manufacture of fine chemicals

SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)

**Subsequent service life relevant for that use?** yes

### **Additive for the formulation of fertilizers**

**Process category** 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 13: Treatment of articles by dipping and pouring

**Environmental release category** ERC 2: Formulation of preparations

ERC 3: Formulation in materials

ERC 10a: Wide dispersive outdoor use of long-life articles and materials with low release

ERC 10b: Wide dispersive outdoor use of long-life articles and materials with high or intended release (including

abrasive processing)

ERC 5: Industrial use resulting in inclusion into or onto a matrix

**Substance supplied to that use in form of** As such

In a mixture

**Market sector by type of chemical product** PC 9b: Fillers, putties, plasters, modelling clay

PC 12: Fertilisers

PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents

PC 21: Laboratory chemicals

**Sector of end use** SU 1: Agriculture, forestry and fishing

SU 8: Manufacture of bulk, large scale chemicals (including petroleum products)

SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)

**Subsequent service life relevant for that use?** yes

**Additive in the formulation of cosmetics**

**Process category** 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

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

**Environmental release category** ERC 2: Formulation of preparations

ERC 5: Industrial use resulting in inclusion into or onto a matrix

**Substance supplied to that use in form of** As such

In a mixture

**Market sector by type of chemical product** PC 28: Perfumes, fragrances

PC 35: Washing and cleaning products (including solvent based products)

PC 39: Cosmetics, personal care products

**Sector of end use** SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)

**Subsequent service life relevant for that use?** yes

**Additive in the formulation of pharma / veterinary products**

**Process category** 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

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

**Environmental release category** ERC 2: Formulation of preparations

ERC 5: Industrial use resulting in inclusion into or onto a matrix

ERC 8a: Wide dispersive indoor use of processing aids in open systems

ERC 8d: Wide dispersive outdoor use of processing aids in open systems

**Substance supplied to that use in form of** As such

In a mixture

**Market sector by type of chemical product** PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents

PC 21: Laboratory chemicals

PC 29: Pharmaceuticals

**Sector of end use** SU 9: Manufacture of fine chemicals

SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)

SU 20: Health services

**Subsequent service life relevant for that use?** yes

### **Use of ZnSO<sub>4</sub>-containing paper coatings**

**Process category** 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 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, including weighing)

PROC 10: Roller application or brushing

PROC 13: Treatment of articles by dipping and pouring

PROC 19: Hand-mixing with intimate contact and only PPE available.

**Environmental release category** ERC 8a: Wide dispersive indoor use of processing aids in open systems

ERC 8d: Wide dispersive outdoor use of processing aids in open systems

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

**Substance supplied to that use in form of** In a mixture

**Market sector by type of chemical product** PC 1: Adhesives, sealants

PC 14: Metal surface treatment products, including galvanic and electroplating products

PC 15: Non-metal-surface treatment products

PC 18: Ink and toners

PC 9a: Coatings and paints, thinners, paint removes

PC 9b: Fillers, putties, plasters, modelling clay

PC 9c: Finger paints

**Sector of end use** SU 6b: Manufacture of pulp, paper and paper products

SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)

**Subsequent service life relevant for that use?** yes

**Article category related to subsequent service life** AC 0: Other:

coatings for art and creative items

### **Use of ZnSO<sub>4</sub>-containing textile & leather coatings**

**Process category** 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 6: Calendaring 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, including weighing)

PROC 10: Roller application or brushing

PROC 13: Treatment of articles by dipping and pouring

PROC 19: Hand-mixing with intimate contact and only PPE available.

**Environmental release category** ERC 8a: Wide dispersive indoor use of processing aids in open systems

ERC 8d: Wide dispersive outdoor use of processing aids in open systems

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

**Substance supplied to that use in form of** In a mixture

**Market sector by type of chemical product** PC 1: Adhesives, sealants

PC 9a: Coatings and paints, thinners, paint removes

PC 9b: Fillers, putties, plasters, modelling clay

PC 9c: Finger paints

PC 14: Metal surface treatment products, including galvanic and electroplating products

PC 15: Non-metal-surface treatment products

PC 18: Ink and toners

**Sector of end use** SU 5: Manufacture of textiles, leather, fur

SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)

**Subsequent service life relevant for that use?** yes

**Article category related to subsequent service life** AC 0: Other:

coatings for art and creative items

### **Formulation by Dry mixture**

**Process category** PROC 2: Use in closed, continuous process with occasional controlled exposure

PROC 3: Use in closed batch process (synthesis or formulation)

PROC 1: Use in closed process, no likelihood of exposure

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 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 22: Potentially closed processing operations with minerals/metals at elevated temperature. Industrial setting

**Environmental release category** ERC 1: Manufacture of substances

ERC 2: Formulation of preparations

**Substance supplied to that use in form of** As such

In a mixture

**Market sector by type of chemical product** PC 12: Fertilisers

PC 8: Biocidal products (e.g. disinfectants, pest control)

PC 27: Plant protection products

**Sector of end use** SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)

**Subsequent service life relevant for that use?** yes

### **Hand mixing of dry formulation**

**Process category** 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 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 19: Hand-mixing with intimate contact and only PPE available.

**Environmental release category** ERC 1: Manufacture of substances

ERC 2: Formulation of preparations

**Substance supplied to that use in form of** As such

In a mixture

**Market sector by type of chemical product** PC 12: Fertilisers

PC 8: Biocidal products (e.g. disinfectants, pest control)

PC 27: Plant protection products

**Sector of end use** SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)

**Subsequent service life relevant for that use?** yes

### **Formulation of water-based inorganic preparation**

**Process category** 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 13: Treatment of articles by dipping and pouring

PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation

PROC 19: Hand-mixing with intimate contact and only PPE available.

**Environmental release category** ERC 1: Manufacture of substances

ERC 2: Formulation of preparations

**Substance supplied to that use in form of** As such

In a mixture

**Market sector by type of chemical product** PC 12: Fertilisers

PC 27: Plant protection products

PC 8: Biocidal products (e.g. disinfectants, pest control)

**Sector of end use** SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)

**Subsequent service life relevant for that use?** yes

### **Additive for the fomulation animal feedstuff**

**Process category** 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)

**Environmental release category** ERC 2: Formulation of preparations

ERC 10a: Wide dispersive outdoor use of long-life articles and materials with low release

**Substance supplied to that use in form of** As such

In a mixture

**Market sector by type of chemical product** PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents

PC 29: Pharmaceuticals

**Sector of end use** SU 4: Manufacture of food products

**Subsequent service life relevant for that use?** yes

### **Additive for formulation fertilizer**

**Process category** 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)

**Environmental release category** ERC 2: Formulation of preparations

ERC 3: Formulation in materials

ERC 10a: Wide dispersive outdoor use of long-life articles and materials with low release

ERC 10b: Wide dispersive outdoor use of long-life articles and materials with high or intended release (including abrasive processing)

**Substance supplied to that use in form of** As such

In a mixture

**Market sector by type of chemical product** PC 9b: Fillers, putties, plasters, modelling clay

PC 12: Fertilisers

PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents

PC 27: Plant protection products

**Sector of end use** SU 1: Agriculture, forestry and fishing

SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)

**Subsequent service life relevant for that use?** yes

### **Uses by professional workers**

### **Laboratory reagent**

**Process category** 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

**Environmental release category** 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

**Substance supplied to that use in form of** As such

**Market sector by type of chemical product** PC 19: Intermediate

PC 21: Laboratory chemicals

PC 28: Perfumes, fragrances

PC 39: Cosmetics, personal care products

**Sector of end use** SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)

SU 24: Scientific research and development

**Subsequent service life relevant for that use?** yes

### **Use of ZnSO<sub>4</sub>-containing paper coatings**

**Process category** 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 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, including weighing)

PROC 10: Roller application or brushing

PROC 13: Treatment of articles by dipping and pouring

PROC 19: Hand-mixing with intimate contact and only PPE available.

**Environmental release category** ERC 8a: Wide dispersive indoor use of processing aids in open systems

ERC 8d: Wide dispersive outdoor use of processing aids in open systems

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

**Substance supplied to that use in form of** In a mixture

**Market sector by type of chemical product** PC 1: Adhesives, sealants

PC 14: Metal surface treatment products, including galvanic and electroplating products

PC 15: Non-metal-surface treatment products

PC 18: Ink and toners

PC 9a: Coatings and paints, thinners, paint removers

PC 9b: Fillers, putties, plasters, modelling clay

PC 9c: Finger paints

**Sector of end use** SU 6b: Manufacture of pulp, paper and paper products

SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)

**Subsequent service life relevant for that use?** yes

**Article category related to subsequent service life** AC 0: Other:

coatings for art and creative items

### **Use of ZnSO<sub>4</sub>-containing textile & leather coatings**

**Process category** 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 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, including weighing)

PROC 10: Roller application or brushing

PROC 13: Treatment of articles by dipping and pouring

PROC 19: Hand-mixing with intimate contact and only PPE available.

**Environmental release category** ERC 8a: Wide dispersive indoor use of processing aids in open systems

ERC 8d: Wide dispersive outdoor use of processing aids in open systems

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

**Substance supplied to that use in form of** In a mixture

**Market sector by type of chemical product** PC 1: Adhesives, sealants

PC 9a: Coatings and paints, thinners, paint removes

PC 9b: Fillers, putties, plasters, modelling clay

PC 9c: Finger paints

PC 15: Non-metal-surface treatment products

PC 14: Metal surface treatment products, including galvanic and electroplating products

PC 18: Ink and toners

**Sector of end use** SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)

SU 5: Manufacture of textiles, leather, fur

**Subsequent service life relevant for that use?** yes

**Article category related to subsequent service life** AC 0: Other:

coatings for art and creative items

### **Use of ZnSO<sub>4</sub>-containing Lubricants / Grease / Metal working fluids**

**Process category** PROC 7: Industrial spraying

PROC 8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities

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 10: Roller application or brushing

PROC 11: Non industrial spraying

PROC 13: Treatment of articles by dipping and pouring

PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation

PROC 17: Lubrication at high energy conditions and in partly open process

PROC 19: Hand-mixing with intimate contact and only PPE available.

PROC 21: Low energy manipulation of substances bound in materials and/or articles

**Environmental release category** ERC 8a: Wide dispersive indoor use of processing aids in open systems

ERC 8c: Wide dispersive indoor use resulting in inclusion into or onto a matrix

ERC 8d: Wide dispersive outdoor use of processing aids in open systems

ERC 8f: Wide dispersive outdoor use resulting in inclusion into or onto a matrix

**Substance supplied to that use in form of** In a mixture

**Market sector by type of chemical product** PC 14: Metal surface treatment products, including galvanic and electroplating products

PC 24: Lubricants, greases, release products

PC 25: Metal working fluids

PC 32: Polymer preparations and compounds

**Sector of end use** SU 17: General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment

SU 18: Manufacture of furniture

**Subsequent service life relevant for that use?** yes

**Article category related to subsequent service life** AC 1: Vehicles

AC 2: Machinery, mechanical appliances, electrical/electronic articles

AC 7: Metal articles

AC 11: Wood articles

## **Use of ZnSO<sub>4</sub>-containing cleaning products**

**Process category** PROC 8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities

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 10: Roller application or brushing

PROC 11: Non industrial spraying

PROC 13: Treatment of articles by dipping and pouring

**Environmental release category** ERC 8a: Wide dispersive indoor use of processing aids in open systems

**Substance supplied to that use in form of** In a mixture

**Market sector by type of chemical product** PC 8: Biocidal products (e.g. disinfectants, pest control)

PC 35: Washing and cleaning products (including solvent based products)

PC 39: Cosmetics, personal care products

**Sector of end use** SU 9: Manufacture of fine chemicals

**Subsequent service life relevant for that use?** yes

### **Use of ZnSO<sub>4</sub>-containing fertilizer's formulations**

**Process category** PROC 2: Use in closed, continuous process with occasional controlled exposure

PROC 7: Industrial spraying

PROC 8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities

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 10: Roller application or brushing

PROC 11: Non industrial spraying

PROC 13: Treatment of articles by dipping and pouring

PROC 19: Hand-mixing with intimate contact and only PPE available.

PROC 26: Handling of solid inorganic substances at ambient temperature

**Environmental release category** ERC 8a: Wide dispersive indoor use of processing aids in open systems

ERC 8b: Wide dispersive indoor use of reactive substances in open systems

ERC 8d: Wide dispersive outdoor use of processing aids in open systems

ERC 8e: Wide dispersive outdoor use of reactive substances in open systems

ERC 9b: Wide dispersive outdoor use of substances in closed systems

ERC 10b: Wide dispersive outdoor use of long-life articles and materials with high or intended release (including abrasive processing)

**Substance supplied to that use in form of** In a mixture

**Market sector by type of chemical product** PC 9b: Fillers, putties, plasters, modelling clay

PC 12: Fertilisers

PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents

**Sector of end use** SU 1: Agriculture, forestry and fishing

SU 9: Manufacture of fine chemicals

**Subsequent service life relevant for that use?** yes

### **Use of cosmetics**

**Process category** 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 10: Roller application or brushing

PROC 11: Non industrial spraying

**Environmental release category** ERC 8a: Wide dispersive indoor use of processing aids in open systems

**Substance supplied to that use in form of** In a mixture

**Market sector by type of chemical product** PC 28: Perfumes, fragrances

PC 35: Washing and cleaning products (including solvent based products)

PC 39: Cosmetics, personal care products

**Sector of end use** SU 9: Manufacture of fine chemicals

**Subsequent service life relevant for that use?** yes

### **Use of Pharma / veterinary products**

**Process category** 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 10: Roller application or brushing

PROC 11: Non industrial spraying

**Environmental release category** ERC 8a: Wide dispersive indoor use of processing aids in open systems

**Substance supplied to that use in form of** In a mixture

**Market sector by type of chemical product** PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents

PC 21: Laboratory chemicals

PC 29: Pharmaceuticals

**Sector of end use** SU 20: Health services

**Subsequent service life relevant for that use?** yes

### **DU of pharma / veterinary products**

**Process category** 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 10: Roller application or brushing

PROC 11: Non industrial spraying

**Environmental release category** ERC 8a: Wide dispersive indoor use of processing aids in open systems

**Substance supplied to that use in form of** In a mixture

**Market sector by type of chemical product** PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents

PC 21: Laboratory chemicals

PC 29: Pharmaceuticals

**Sector of end use** SU 20: Health services

**Subsequent service life relevant for that use?** yes

### **Uses by consumers**

### **Use of ZnSO<sub>4</sub>-containing Lubricants / Grease / Metal working fluids**

**Chemical product category** PC 14: Metal surface treatment products, including galvanic and electroplating products

PC 24: Lubricants, greases, release products

PC 25: Metal working fluids

PC 32: Polymer preparations and compounds

**Environmental release category** ERC 8a: Wide dispersive indoor use of processing aids in open systems

ERC 8c: Wide dispersive indoor use resulting in inclusion into or onto a matrix

ERC 8d: Wide dispersive outdoor use of processing aids in open systems

ERC 8f: Wide dispersive outdoor use resulting in inclusion into or onto a matrix

**Subsequent service life relevant for that use?** yes

**Article category related to subsequent service life** AC 1: Vehicles

AC 2: Machinery, mechanical appliances, electrical/electronic articles

AC 7: Metal articles

AC 11: Wood articles

### **Use of ZnSO<sub>4</sub>-containing cleaning products**

**Chemical product category** PC 8: Biocidal products (e.g. disinfectants, pest control)

PC 35: Washing and cleaning products (including solvent based products)

PC 39: Cosmetics, personal care products

**Environmental release category** ERC 8a: Wide dispersive indoor use of processing aids in open systems

**Subsequent service life relevant for that use?** yes

### **Use of ZnSO<sub>4</sub>-containing fertilizer's formulations**

**Chemical product category** PC 9b: Fillers, putties, plasters, modelling clay

PC 12: Fertilisers

PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents

**Environmental release category** ERC 8a: Wide dispersive indoor use of processing aids in open systems

ERC 8b: Wide dispersive indoor use of reactive substances in open systems

ERC 8d: Wide dispersive outdoor use of processing aids in open systems

ERC 8e: Wide dispersive outdoor use of reactive substances in open systems

ERC 9b: Wide dispersive outdoor use of substances in closed systems

ERC 10b: Wide dispersive outdoor use of long-life articles and materials with high or intended release (including abrasive processing)

**Subsequent service life relevant for that use?** yes

### **Use of cosmetics**

**Chemical product category** PC 28: Perfumes, fragrances

PC 35: Washing and cleaning products (including solvent based products)

PC 39: Cosmetics, personal care products

**Environmental release category** ERC 8a: Wide dispersive indoor use of processing aids in open systems

**Subsequent service life relevant for that use?** yes

## **Use of Pharma / veterinary products**

**Chemical product category** PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents

PC 21: Laboratory chemicals

PC 29: Pharmaceuticals

**Environmental release category** ERC 8a: Wide dispersive indoor use of processing aids in open systems

**Subsequent service life relevant for that use?** yes

## **DI of pharma / veterinary products**

**Chemical product category** PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents

PC 21: Laboratory chemicals

PC 29: Pharmaceuticals

**Environmental release category** ERC 8a: Wide dispersive indoor use of processing aids in open systems

**Subsequent service life relevant for that use?** yes