



## Information on uses (IUCLID V Part 3.5)

**Table 1: Iron Powders (Iron Powder made by sponge iron process, atomization processes (gas and water) and electrolysis)**

Process category	Environmental release category	Market sector by type of chemical product	Sector of end use	Article category related to subsequent service life	Exposure scenario reference in the CSR
PROC 3 PROC 4 PROC 5 PROC 7 PROC 8b PROC 14 PROC 21 PROC 22 PROC 25 PROC 26 PROC 27a PROC 27b PROC 0: Other: Cleaning and maintenance	ERC 1 ERC 2 ERC 5 ERC 12a ERC 12b	PC 7 PC 14 PC 24 PC 25	SU 14 SU 15	AC 7	not relevant as not classified

**Table 2: Carbonyl Iron Powders (Iron Powder uncoated, made by thermal decomposition of Iron pentacarbonyl)**

Process category	Environmental release category	Market sector by type of chemical product	Sector of end use	Article category related to subsequent service life	Exposure scenario reference in the CSR
PROC 1 PROC 2 PROC 3 PROC 4 PROC 5 PROC 6 PROC 7 PROC 8a PROC 8b PROC 9 PROC 10 PROC 12 PROC 13 PROC 14 PROC 15 PROC 16 PROC 17 PROC 18 PROC 19 PROC 20 PROC 21 PROC 22 PROC 23 PROC 24	ERC 1 ERC 2 ERC 3 ERC 4 ERC 5 ERC 6a ERC 6b ERC 8a ERC 8b ERC 8c ERC 8d ERC 8f ERC 10a ERC 10b ERC 11a	PC 7 PC 8 PC 9a PC 9b PC 15 PC 17 PC 18 PC 21 PC 29 PC 32 PC 34 PC 35 PC 37 PC 38	SU 2a SU 4 SU 5 SU 6a SU 6b SU 7 SU 9 SU 10 SU 11 SU 12 SU 13 SU 14 SU 15 SU 16 SU 17 SU 19 SU 20	AC 1 AC 2 AC 3 AC 5 AC 7 AC 8 AC 10	not relevant as only classified for physical chemical properties

**Table 3: Iron Furnace / Pig Iron**

Process category	Environmental release category	Market sector by type of chemical product	Sector of end use	Article category related to subsequent service life	Exposure scenario reference in the CSR
PROC 2 PROC 3 PROC 5 PROC 8b PROC 21 PROC 22 PROC 23 PROC 24 PROC 25 PROC 26 PROC 27a PROC 27b	ERC 1 ERC 3 ERC 5 ERC 12a ERC 12b	PC 7	SU 14	AC 7	not relevant as no classified

**Table 4: Iron Furnace / DRI**

Process category	Environmental release category	Market sector by type of chemical product	Sector of end use	Article category related to subsequent service life	Exposure scenario reference in the CSR
PROC 2 PROC 3 PROC 5 PROC 8b PROC 14 PROC 21 PROC 22 PROC 23 PROC 24 PROC 25 PROC 26 PROC 27a PROC 27b	ERC 1 ERC 3 ERC 5 ERC 12a ERC 12b	PC 7	SU 14	AC 7	not relevant as not classified

**Table 5: Iron Furnace / HBI**

Process category	Environmental release category	Market sector by type of chemical product	Sector of end use	Article category related to subsequent service life	Exposure scenario reference in the CSR
PROC 2 PROC 3 PROC 5 PROC 8b PROC 14 PROC 21 PROC 22 PROC 23 PROC 24 PROC 25 PROC 26 PROC 27a PROC 27b	ERC 1 ERC 3 ERC 5 ERC 12a ERC 12b	PC 7	SU 14	AC 7	not relevant as not classified

**Table 6: Elemental Iron: production and use of steel and alloys in massive form**

Process category	Environmental release category	Market sector by type of chemical product	Sector of end use	Article category related to subsequent service life	Exposure scenario reference in the CSR
PROC 1 PROC 2 PROC 3 PROC 5 PROC 8b PROC 21 PROC 22 PROC 23 PROC 24 PROC 25	ERC 3 ERC 5 ERC 12a ERC 12b	PC 7	SU 14 SU 15 SU 24	AC 7 AC1 AC2	not relevant as not classified

**Table 7: Elemental Iron: production and use of steel and alloys in powder form**

Process category	Environmental release category	Market sector by type of chemical product	Sector of end use	Article category related to subsequent service life	Exposure scenario reference in the CSR
PROC 1 PROC 2 PROC 3 PROC 5 PROC 8b PROC 9 PROC 14 PROC 21 PROC 22 PROC 23 PROC 24 PROC 25 PROC 26 PROC 27a PROC 27b	ERC 3 ERC 5	PC 7	SU 7 SU 14 SU 15 SU 24	AC 7 AC1 AC2	not relevant as not classified

### Process category list

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 6: Calendering operations  
 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 12: Use of blowing agents in manufacture of foam  
 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 16: Using material as fuel sources, limited exposure to unburned product to be expected  
 PROC 17: Lubrication at high energy conditions and in partly open process  
 PROC 18: Greasing at high energy conditions  
 PROC 19: Hand-mixing with intimate contact and only PPE available.  
 PROC 20: Heat and pressure transfer fluids in dispersive, professional use but closed systems  
 PROC 21: Low energy manipulation of substances bound in materials and/or articles  
 PROC 22: Potentially closed processing operations with minerals/metals at elevated temperature.  
 PROC 23: Open processing and transfer operations with minerals/metals at elevated temperature  
 PROC 24: High (mechanical) energy work-up of substances bound in materials and/or articles  
 PROC 25: Other hot work operations with metals  
 PROC 26: Handling of solid inorganic substances at ambient temperature  
 PROC 27a: Production of metal powders (hot processes)  
 PROC 27b: Production of metal powders (wet processes)  
 PROC 0: Other: Cleaning and maintenance

### 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 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 8b: Wide dispersive indoor use of reactive substances 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  
 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 11a: Wide dispersive indoor use of long-life articles and materials with low release  
 ERC 12a: Industrial processing of articles with abrasive techniques (low release)  
 ERC 12b: Industrial processing of articles with abrasive techniques (high release)

### Market sector by type of chemical product

PC 7: Base metals and alloys  
 PC 8: Biocidal products (e.g. disinfectants, pest control)  
 PC 9a: Coatings and paints, thinners, paint removes  
 PC 9b: Fillers, putties, plasters, modelling clay  
 PC 14: Metal surface treatment products, including galvanic and electroplating products  
 PC 15: Non-metal-surface treatment products  
 PC 17: Hydraulic fluids  
 PC 18: Ink and toners  
 PC 21: Laboratory chemicals  
 PC 24: Lubricants, greases, release products  
 PC 25: Metal working fluids  
 PC 29: Pharmaceuticals

PC 32: Polymer preparations and compounds

PC 34: Textile dyes, finishing and impregnating products; including bleaches and other processing aids PC 35: Washing and cleaning products (including solvent based products)

PC 37: Water treatment chemicals

PC 38: Welding and soldering products (with flux coatings or flux cores.), flux products

### **Sector of end use**

SU 2a: Mining (without 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 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

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 19: Building and construction work

SU 20: Health services

SU 24: Scientific research and development

### **Article category related to subsequent service life**

AC 1: Vehicles

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

AC 3: Electrical batteries and accumulators

AC 5: Fabrics, textiles and apparel

AC 7: Metal articles

AC 8: Paper articles

AC 10: Rubber articles