

IU	Identified use name	Process category	Environmental release category	Substance supplied to that use in form of	Market sector by type of chemical product	Sector of end use	Subsequent service life relevant for that use?
Uses by workers in industrial settings							
1	Manufacturing of anhydrous ammonia	PROC 1: Use in closed process, no likelihood of exposure PROC 2: Use in closed, continuous process with occasional controlled exposure 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	ERC 1: Manufacture of substances	As such		SU 8: Manufacture of bulk, large scale chemicals (including petroleum products) SU 9: Manufacture of fine chemicals SU 0: Other:C20.1.5- Manufacture of fertilizers and nitrogen compounds	no
2	Distribution and formulation of anhydrous ammonia	PROC 1: Use in closed process, no likelihood of exposure PROC 2: Use in closed, continuous process with occasional controlled	ERC 2: Formulation of preparations	As such in a mixture		SU 1: Agriculture, forestry and fishing SU 10: Formulation [mixing] of preparations and/or re-packaging	no

IU	Identified use name	Process category	Environmental release category	Substance supplied to that use in form of	Market sector by type of chemical product	Sector of end use	Subsequent service life relevant for that use?
		exposure 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 15: Use as laboratory reagent PROC 3: Use in closed batch process (synthesis or formulation) PROC 4: Use in batch and other process (synthesis) where opportunity for exposure arises				(excluding alloys) SU 24: Scientific research and development	

IU	Identified use name	Process category	Environmental release category	Substance supplied to that use in form of	Market sector by type of chemical product	Sector of end use	Subsequent service life relevant for that use?
		PROC 5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)					
3	Industrial use of anhydrous ammonia as an intermediate. Use of the substance in the manufacture of nitric acid, alkalis, dyes, pharmaceuticals, cosmetics, vitamins, synthetic textil fibres and plastics	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)	ERC 6a: Industrial use resulting in manufacture of another substance (use of intermediates)	As such in a mixture		SU 1: Agriculture, forestry and fishing SU 8: Manufacture of bulk, large scale chemicals (including petroleum products) SU 9: Manufacture of fine chemicals SU 12: Manufacture of plastics products, including compounding and conversion SU 15: Manufacture of fabricated metal products, except machinery and equipment SU 24: Scientific research and	no

IU	Identified use name	Process category	Environmental release category	Substance supplied to that use in form of	Market sector by type of chemical product	Sector of end use	Subsequent service life relevant for that use?
		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 15: Use as laboratory reagent				development SU 5: Manufacture of textiles, leather, fur SU 0: Other:C21 - Manufacture of basic pharmaceutical products and pharmaceutical preparations; C20.1.5 - Manufacture of fertilizer and nitrogen compounds	
4	Processing, non-processing aids, auxiliary agent. Use in photochemical processes with refrigerant systems, insolution products, inks and toners, coatings, thinners and	PROC 1: Use in closed process, no likelihood of exposure PROC 2: Use in closed, continuous process with occasional controlled exposure	ERC 7: Industrial use of substances in closed systems ERC 4: Industrial use of processing aids in processes and products, not becoming part of	As such in a mixture		SU 0: Other:NACE code C28.2.5: Manufacture of non-domestic cooling and ventilation equipment	no

IU	Identified use name	Process category	Environmental release category	Substance supplied to that use in form of	Market sector by type of chemical product	Sector of end use	Subsequent service life relevant for that use?
	<p>paint, removers, processing aids in chemical industry</p>	<p>PROC 4: Use in batch and other process (synthesis) where opportunity for exposure arises                      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 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</p>	<p>articles                      ERC 6b: Industrial use of reactive processing aids                      ERC 5: Industrial use resulting in inclusion into or onto a matrix</p>				

IU	Identified use name	Process category	Environmental release category	Substance supplied to that use in form of	Market sector by type of chemical product	Sector of end use	Subsequent service life relevant for that use?
		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 15: Use as laboratory reagent PROC 19: Hand-mixing with intimate contact and only PPE available.					
5	Processing, non-processing aids, auxiliary agent. Use as an extraction agent in NOx/SOx reduction, processing aid in nutrition, neutralizing agent, textile dye, washing and cleaning products, textile treatment	PROC 3: Use in closed batch process (synthesis or formulation) PROC 15: Use as laboratory reagent PROC 4: Use in batch and other process (synthesis) where opportunity for exposure arises	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 6b: Industrial use of reactive processing aids	As such in a mixture		SU 4: Manufacture of food products SU 13: Manufacture of other non-metallic mineral products, e.g. plasters, cement SU 23: Electricity, steam, gas water	no

IU	Identified use name	Process category	Environmental release category	Substance supplied to that use in form of	Market sector by type of chemical product	Sector of end use	Subsequent service life relevant for that use?
		<p>PROC 1: Use in closed process, no likelihood of exposure</p> <p>PROC 2: Use in closed, continuous process with occasional controlled exposure</p> <p>PROC 5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)</p> <p>PROC 7: Industrial spraying</p> <p>PROC 8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities</p> <p>PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</p>	ERC 7: Industrial use of substances in closed systems			supply and sewage treatment	

IU	Identified use name	Process category	Environmental release category	Substance supplied to that use in form of	Market sector by type of chemical product	Sector of end use	Subsequent service life relevant for that use?
		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.					
6	Processing, non-processing aids, auxiliary agent: use in pulp/paper treatment, leather treatment, wood treatment, metal surface treatment, the treatment of rubber/latex, the manufacture of semiconductors/electronics	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	ERC 7: Industrial use of substances in closed systems 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 6b: Industrial use of reactive processing aids	As such in a mixture		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 11: Manufacture of rubber products SU 12: Manufacture of plastics products,	no



IU	Identified use name	Process category	Environmental release category	Substance supplied to that use in form of	Market sector by type of chemical product	Sector of end use	Subsequent service life relevant for that use?
		exposure arises PROC 5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact) 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				including compounding and conversion SU 15: Manufacture of fabricated metal products, except machinery and equipment SU 16: Manufacture of computer, electronic and optical products, electrical equipment	

IU	Identified use name	Process category	Environmental release category	Substance supplied to that use in form of	Market sector by type of chemical product	Sector of end use	Subsequent service life relevant for that use?
		application or brushing PROC 13: Treatment of articles by dipping and pouring PROC 15: Use as laboratory reagent PROC 19: Hand-mixing with intimate contact and only PPE available.					
7	Processing, non-processing aids, auxiliary agent: use in adhesives and sealants, polymer preparations, aircare products, preservatives	PROC 2: Use in closed, continuous process with occasional controlled exposure PROC 1: Use in closed process, no likelihood of 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	ERC 6b: Industrial use of reactive processing aids 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	As such in a mixture		SU 8: Manufacture of bulk, large scale chemicals (including petroleum products)	no

IU	Identified use name	Process category	Environmental release category	Substance supplied to that use in form of	Market sector by type of chemical product	Sector of end use	Subsequent service life relevant for that use?
		preparations and articles (multistage and/or significant contact) 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 13: Treatment of articles by dipping and pouring					

IU	Identified use name	Process category	Environmental release category	Substance supplied to that use in form of	Market sector by type of chemical product	Sector of end use	Subsequent service life relevant for that use?
		PROC 15: Use as laboratory reagent PROC 19: Hand-mixing with intimate contact and only PPE available.					

IU	Identified use name	Process category	Environmental release category	Substance supplied to that use in form of	Market sector by type of chemical product	Sector of end use	Subsequent service life relevant for that use?
Uses by professional workers							
8	Professional uses of anhydrous and aqueous ammonia. Use as a laboratory chemical, refrigerant and cooling systems, water treatment chemical,	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	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	As such in a mixture			no

IU	Identified use name	Process category	Environmental release category	Substance supplied to that use in form of	Market sector by type of chemical product	Sector of end use	Subsequent service life relevant for that use?
	fertilizer, coating, paint thinner or paint remover, photochemical	<p>and articles (multistage and/or significant contact)</p> <p>PROC 8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities</p> <p>PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</p> <p>PROC 9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)</p> <p>PROC 10: Roller application or brushing</p> <p>PROC 11: Non industrial spraying</p> <p>PROC 13: Treatment of articles by dipping and pouring</p> <p>PROC 15: Use as laboratory reagent</p> <p>PROC 19: Hand-mixing with intimate contact and only PPE available.</p> <p>PROC 20: Heat and pressure transfer fluids in dispersive, professional use but closed systems</p>	<p>ERC 8f: Wide dispersive outdoor use resulting in inclusion into or onto a matrix</p> <p>ERC 9a: Wide dispersive indoor use of substances in closed systems</p> <p>ERC 9b: Wide dispersive outdoor use of substances in closed systems</p> <p>ERC 11a: Wide dispersive indoor use of long-life articles and materials with low release</p>				
9	Professional uses of	PROC 1: Use in closed process, no likelihood of exposure	ERC 8a: Wide dispersive indoor use of processing	As such in a mixture			no

IU	Identified use name	Process category	Environmental release category	Substance supplied to that use in form of	Market sector by type of chemical product	Sector of end use	Subsequent service life relevant for that use?
	anhydrous and aqueous ammonia. Use as a cleaning product, laser or other surface treatment product, pH regulatory or neutralization agent, process aid for nutrition	<p>PROC 2: Use in closed, continuous process with occasional controlled exposure</p> <p>PROC 3: Use in closed batch process (synthesis or formulation)</p> <p>PROC 4: Use in batch and other process (synthesis) where opportunity for exposure arises</p> <p>PROC 5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)</p> <p>PROC 8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities</p> <p>PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</p> <p>PROC 9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)</p> <p>PROC 10: Roller application or brushing</p> <p>PROC 11: Non industrial spraying</p> <p>PROC 13: Treatment of articles by dipping and pouring</p>	<p>aids in open systems</p> <p>ERC 8b: Wide dispersive indoor use of reactive substances in open systems</p> <p>ERC 8d: Wide dispersive outdoor use of processing aids in open systems</p> <p>ERC 8e: Wide dispersive outdoor use of reactive substances in open systems</p> <p>ERC 8f: Wide dispersive outdoor use resulting in inclusion into or onto a matrix</p> <p>ERC 9a: Wide dispersive indoor use of substances in closed systems</p> <p>ERC 9b: Wide dispersive outdoor use of substances in closed systems</p> <p>ERC 11a: Wide dispersive indoor use of long-life articles and materials with low release</p>				

IU	Identified use name	Process category	Environmental release category	Substance supplied to that use in form of	Market sector by type of chemical product	Sector of end use	Subsequent service life relevant for that use?
		PROC 15: Use as laboratory reagent PROC 18: Greasing at high energy conditions PROC 19: Hand-mixing with intimate contact and only PPE available.					

IU	Identified use name	Chemical product category	Environmental release category	Subsequent service life relevant for that use?
<b>Uses by consumer</b>				
9	Wide-dispersive end use: Consumer use of aqueous ammonia. Use in coatings, paints, thinners and removers; use in fillers, putties and plasters, use of washing and cleaning products, use in cosmetic and personal care products	PC 9a: Coatings and paints, thinners, paint removes PC 9b: Fillers, putties, plasters, modelling clay PC 9c: Finger paints PC 12: Fertilisers PC 16: Heat transfer fluids PC 18: Ink and toners PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents PC 23: Leather tanning, dye, finishing, impregnation and care products PC 35: Washing and cleaning products	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 8f: Wide dispersive outdoor use resulting in inclusion into or onto a matrix ERC 9a: Wide dispersive indoor use of substances in closed systems ERC 9b: Wide dispersive outdoor use of substances in closed systems	no

IU	Identified use name	Chemical product category	Environmental release category	Subsequent service life relevant for that use?
		(including solvent based products) PC 37: Water treatment chemicals PC 39: Cosmetics, personal care products PC 0: Other:Other products: UCN CODE A40200 Cooling Agents; PC 10: Building and construction preparations not covered elsewhere.	ERC 11a: Wide dispersive indoor use of long-life articles and materials with low release	