

Table 1: Description of identified uses

ES number	Manufacture	Identified uses				Resulting life cycle stage		Sector of Use (SU)	Preparation Category (PC)	Process Category (PROC)	Article Category (AC)	Environmental Release Category (ERC)
		Formulation	Industrial end use	Professional end use	Consumer use	Service life (for articles)	Waste stage					
ES 0: Production of adipic acid	x							8, 9		1, 2, 3, 8a, 8b, 9		1
ES 1: Use of adipic acid as intermediate or monomer			x					3, 8, 9, 12	19, 32	1, 2, 3, 4, 8a, 8b, 9		6a, 6c, 6d
ES 2: Preparation and uses of formulations		x						3, 5, 10	20, 23	1, 2, 3, 4, 5, 7, 8a, 8b, 9, 10, 13		2, 6b
ES 3: Use of adipic acid in the production of dish washing machine tablets			x					3, 10	35	2, 5, 8a, 13, 14		2
ES 4: Use of dish washing machine tablets by consumers					x	x		21	35			8a
ES 5: Use of adipic acid in flue gas desulphurization			x					3, 23	20	16		8e
ES 6: Use of adipic acid in laboratory chemicals				x				22	21	15		8a, 8b

**Table 2. Uses by workers in industrial settings**

Confidential	IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
	1	use of adipic acid as intermediate or monomer	as such (substance itself)  in a mixture	<p><b>Process category (PROC):</b></p> <p>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 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)</p> <p><b>Market sector by type of chemical product:</b></p> <p>PC 19: Intermediate            PC 32: Polymer preparations and compounds</p> <p><b>Environmental release category (ERC):</b></p> <p>ERC 6a: Industrial use resulting in manufacture of another substance (use of intermediates)            ERC 6c: Industrial use of monomers for manufacture of thermoplastics            ERC 6d: Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers</p> <p><b>Sector of end use (SU):</b></p> <p>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</p>

2	Preparation and Uses of formulations	as such (substance itself)  in a mixture	<p><b>Process category (PROC):</b></p> <p>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 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 7: Industrial spraying          PROC 10: Roller application or brushing          PROC 13: Treatment of articles by dipping and pouring</p> <p><b>Market sector by type of chemical product:</b></p> <p>PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents          PC 23: Leather tanning, dye, finishing, impregnation and care products</p> <p><b>Environmental release category (ERC):</b></p> <p>ERC 2: Formulation of preparations          ERC 6b: Industrial use of reactive processing aids</p> <p><b>Sector of end use (SU):</b></p> <p>SU 5: Manufacture of textiles, leather, fur          SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)</p>
3	Use of adipic acid in the production of dish washing machine tablets	as such (substance itself)  in a mixture	<p><b>Process category (PROC):</b></p> <p>PROC 2: Use in closed, continuous process with occasional controlled exposure          PROC 5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)          PROC 8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities          PROC 13: Treatment of articles by dipping and pouring</p>

EC number:  
204-673-3

adipic acid (IUC4 DSN 4084)

CAS number:  
124-04-9

				<p>PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation</p> <p><b>Market sector by type of chemical product:</b> PC 35: Washing and cleaning products (including solvent based products)</p> <p><b>Environmental release category (ERC):</b> ERC 2: Formulation of preparations</p> <p><b>Sector of end use (SU):</b> SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)</p>
	5	Use of adipic acid in flue gas desulphurisation	as such (substance itself) in a mixture	<p><b>Process category (PROC):</b> PROC 16: Using material as fuel sources, limited exposure to unburned product to be expected</p> <p><b>Market sector by type of chemical product:</b> PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents</p> <p><b>Environmental release category (ERC):</b> ERC 8e: Wide dispersive outdoor use of reactive substances in open systems</p> <p><b>Sector of end use (SU):</b> SU 23: Electricity, steam, gas water supply and sewage treatment</p>

**Table 3. Uses by professional workers**

Confidential	IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
	6	Use of adipic acid as Laboratory Chemicals	as such (substance itself) in a mixture	<p><b>Process category (PROC):</b> PROC 15: Use as laboratory reagent</p> <p><b>Market sector by type of chemical product:</b> PC 21: Laboratory chemicals</p> <p><b>Environmental release category (ERC):</b></p>

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				ERC 8a: Wide dispersive indoor use of processing aids in open systems ERC 8b: Wide dispersive indoor use of reactive substances in open systems <b>Subsequent service life relevant for that use?: no</b>
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**Table 4. Uses by consumers**

<b>Confidential</b>	<b>IU number</b>	<b>Identified Use (IU) name</b>	<b>Use descriptors</b>
	4	Use of dish washing machine tablets by consumers	<b>Chemical product category (PC):</b> PC 35: Washing and cleaning products (including solvent based products) <b>Environmental release category (ERC):</b> ERC 8a: Wide dispersive indoor use of processing aids in open systems <b>Subsequent service life relevant for that use?: no</b>