

SAFETY DATA SHEET

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Regulation : In accordance with Regulation (EU) 2015/830 (REACH), Annex II , and OSHA 29 CFR 1910.1200

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Name of product : HI-LUBE(BA,300P,500P)

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses :

Manufacture

Identified Use (IU) name	Process Category (PROC)	Environmental Release Category (ERC)	Substance supplied to that use in form of	Product Category (PC)	Sector of Use (SU)	Subsequent service life relevant for that use	Article Category (AC)	Technical function of the substance during formulation
#72: Manufacturing : Flaking, pelleting, packing	PROC 4: Use in batch and other process (synthesis) where opportunity for exposure arises	ERC 1: Manufacture of substances	N/A	N/A	N/A	N/A	N/A	N/A
#71: Manufacturing : Spray cooling and packing	PROC 3: Use in closed batch process (synthesis or formulation)	ERC 1: Manufacture of substances	N/A	N/A	N/A	N/A	N/A	N/A
#70: Batch bulk manufacture	PROC 3: Use in closed batch process (synthesis or formulation)	ERC 1: Manufacture of substances	N/A	N/A	N/A	N/A	N/A	N/A
#68: General industrial formulation process	PROC 1: Use in closed process, no likelihood of exposure	ERC 1: Manufacture of substances ERC 2:	N/A	N/A	N/A	N/A	N/A	N/A

	<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>Formulation of preparations</p> <p>ERC 6a: Industrial use resulting in manufacture of another substance (use of intermediates)</p> <p>ERC 6b: Industrial use of reactive processing aids</p> <p>ERC 6c: Industrial use of monomers for manufacture of thermoplastics</p> <p>ERC 6d: Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers</p> <p>ERC 7: Industrial use of substances in closed systems</p>						
#66: Industrial	PROC 1: Use in closed process, no	ERC 2: Formulation of	N/A	N/A	N/A	N/A	N/A	N/A

production of fine chemicals	<p>likelihood of exposure</p> <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 9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)</p> <p>PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation</p>	<p>preparations</p> <p>ERC 1: Manufacture of substances</p> <p>ERC 6a: Industrial use resulting in manufacture of another substance (use of intermediates)</p> <p>ERC 6b: Industrial use of reactive processing aids</p> <p>ERC 6c: Industrial use of monomers for manufacture of thermoplastics</p> <p>ERC 6d: Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers</p> <p>ERC 7: Industrial use of substances in closed systems</p>						
#62: General industrial production	<p>PROC 1: Use in closed process, no likelihood of exposure</p> <p>PROC 2: Use in closed, continuous process with occasional</p>	<p>ERC 1: Manufacture of substances</p> <p>ERC 2: Formulation of preparations</p> <p>ERC 4: Industrial use</p>	N/A	N/A	N/A	N/A	N/A	N/A

	<p>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 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> <p>PROC 9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)</p> <p>PROC 13: Treatment of articles by dipping and</p>	<p>of processing aids in processes and products, not becoming part of articles</p> <p>ERC 5: Industrial use resulting in inclusion into or onto a matrix</p> <p>ERC 6a: Industrial use resulting in manufacture of another substance (use of intermediates)</p> <p>ERC 6b: Industrial use of reactive processing aids</p> <p>ERC 6c: Industrial use of monomers for manufacture of thermoplastics</p> <p>ERC 6d: Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers</p> <p>ERC 7: Industrial use of substances in closed systems</p>						
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	<p>pouring</p> <p>PROC 14: Production of preparations or articles by</p> <p>tableting, compression, extrusion, pelletisation</p> <p>PROC 17: Lubrication at high energy conditions and in partly open process</p> <p>PROC 21: Low energy manipulation of substances bound in materials and/or articles</p> <p>PROC 24: High (mechanical) energy work-up of substances bound in materials and/or articles</p>							
#43: Manufacture of bulk substance (batch process)	<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>	ERC 1: Manufacture of substances	N/A	N/A	N/A	N/A	N/A	N/A
#41: General manufacturing process	<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 3: Use in closed batch process (synthesis</p>	ERC 1: Manufacture of substances	N/A	N/A	N/A	N/A	N/A	N/A

	<p>or formulation)</p> <p>PROC 4: Use in batch and other process (synthesis) where opportunity for exposure arises</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>							
#40: General manufacturing and formulation procedures	<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 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</p>	<p>ERC 2: Formulation of preparations</p> <p>ERC 1: Manufacture of substances</p>	N/A	N/A	N/A	N/A	N/A	N/A

	PROC 9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)							
#19: General manufacturing process	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	ERC 2: Formulation of preparations ERC 1: Manufacture of substances	N/A	N/A	N/A	N/A	N/A	N/A
#1: Industrial manufacture of bulk chemicals	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 15: Use as laboratory reagent	ERC 1: Manufacture of substances	N/A	N/A	N/A	N/A	N/A	N/A

Formulation

Identified Use (IU) name	Process Category (PROC)	Environmental Release Category (ERC)	Substance supplied to that use in	Product Category (PC)	Sector of Use (SU)	Subsequent service life relevant for that	Article Category (AC)	Technical function of the substance during
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			form of			use		formulation
#73: Blending use of chemicals to prepare in-house formulations ready to use	PROC 5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)	ERC 2: Formulation of preparations	N/A	PC 24: Lubricants, greases, release products PC 34: Textile dyes, finishing and impregnating products; including bleaches and other processing aids	N/A	N/A	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#69: Recycling processes	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	ERC 2: Formulation of preparations ERC 8a: Wide dispersive indoor use of processing aids in open systems	N/A	PC 29: Pharmaceuticals PC 39: Cosmetics, personal care products	N/A	N/A	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier

	<p>(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 15: Use as laboratory reagent</p>							
#68: General industrial formulation process	<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 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)</p>	<p>ERC 1: Manufacture of substances</p> <p>ERC 2: Formulation of preparations</p> <p>ERC 6a: Industrial use resulting in manufacture of another substance (use of intermediates)</p> <p>ERC 6b: Industrial use of reactive processing aids</p> <p>ERC 6c: Industrial use of monomers for manufacture of thermoplastics</p>	N/A	N/A	N/A	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>

	<p>ng) 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>es</p> <p>ERC 6d: Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers</p> <p>ERC 7: Industrial use of substances in closed systems</p>						
#67: Industrial formulation	<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 3: Use in closed batch process (synthesis or formulation)</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)</p>	<p>ERC 2: Formulation of preparations</p> <p>ERC 8a: Wide dispersive indoor use of processing aids in open systems</p>	N/A	<p>PC 29: Pharmaceuticals</p> <p>PC 39: Cosmetics, personal care products</p>	N/A	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>

	<p>ng) 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>							
#66: Industrial production of fine chemicals	<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 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 9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)</p> <p>PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation</p>	<p>ERC 2: Formulation of preparations</p> <p>ERC 1: Manufacture of substances</p> <p>ERC 6a: Industrial use resulting in manufacture of another substance (use of intermediates)</p> <p>ERC 6b: Industrial use of reactive processing aids</p> <p>ERC 6c: Industrial use of monomers for manufacture of thermoplastics</p> <p>ERC 6d: Industrial use of process regulators for polymerisation processes in production of resins,</p>	N/A	N/A	N/A	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>

		rubbers, polymers ERC 7: Industrial use of substances in closed systems						
#62: General industrial production	<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 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 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>	<p>ERC 1: Manufacture of substances</p> <p>ERC 2: Formulation of preparations</p> <p>ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles</p> <p>ERC 5: Industrial use resulting in inclusion into or onto a matrix</p> <p>ERC 6a: Industrial use resulting in manufacture of another substance (use of intermediates)</p> <p>ERC 6b: Industrial use of reactive processing aids</p> <p>ERC 6c: Industrial use of monomers</p>	N/A	N/A	N/A	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>

	<p>PROC 9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)</p> <p>PROC 13: Treatment of articles by dipping and pouring</p> <p>PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation</p> <p>PROC 17: Lubrication at high energy conditions and in partly open process</p> <p>PROC 21: Low energy manipulation of substances bound in materials and/or articles</p> <p>PROC 24: High (mechanical) energy work-up of substances bound in materials and/or articles</p>	<p>for manufacture of thermoplastics</p> <p>ERC 6d: Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers</p> <p>ERC 7: Industrial use of substances in closed systems</p>						
#61: Formulating physically bonded (e.g. additive in a polymer)	<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>	ERC 3: Formulation in materials	N/A	N/A	N/A	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip</p>

	<p>PROC 6: Calendering operations</p> <p>PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation</p>							additive; mold release, flow modifier
#60: Formulation of chemicals	<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 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation</p>	ERC 2: Formulation of preparations	N/A	N/A	N/A	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>
#58: Distribution: Sampling	PROC 2: Use in closed, continuous process with occasional controlled exposure	ERC 2: Formulation of preparations	N/A	N/A	N/A	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip</p>

								additive; mold release, flow modifier
#57: Distribution: Repacking	PROC 9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)	ERC 2: Formulation of preparations	N/A	N/A	N/A	N/A	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisatio n or polymerisati on processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#56: Distribution: Storing and Forwarding (closed system)	PROC 1: Use in closed process, no likelihood of exposure	ERC 2: Formulation of preparations	N/A	N/A	N/A	N/A	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisatio n or polymerisati on processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#55: Chemical distribution: Uploading/unload ing	PROC 8a: Transfer of substance or preparation (charging/dischargi ng) from/to vessels/large containers at non-	ERC 2: Formulation of preparations	N/A	N/A	N/A	N/A	N/A	Lubricants and lubricant additives Process regulators, used in

	dedicated facilities PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities							vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#53: Mixing of solids and liquids in batch process	PROC 5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact) PROC 12: Use of blowing agents in manufacture of foam PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation	ERC 2: Formulation of preparations ERC 3: Formulation in materials	N/A	PC 24: Lubricants, greases, release products PC 32: Polymer preparations and compounds	N/A	N/A	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#51: Use of additive in a plastic masterbatch or compound	PROC 1: Use in closed process, no likelihood of 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	ERC 2: Formulation of preparations	N/A	N/A	N/A	N/A	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold

	<p>dedicated facilities</p> <p>PROC 9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)</p> <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 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation</p>							release, flow modifier
#47: Filling lubricants/metal working fluids	<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</p>	ERC 2: Formulation of preparations	N/A	PC 25: Metal working fluids	N/A	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise</p>

	<p>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>listed slip additive; mold release, flow modifier</p>
#46: Formulation of lubricants	<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>	ERC 2: Formulation of preparations	N/A	PC 24: Lubricants, greases, release products	N/A	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>
#44: Manufacture of food preparation	<p>PROC 3: Use in closed batch process (synthesis or formulation)</p> <p>PROC 4: Use in batch and other process (synthesis)</p>	ERC 2: Formulation of preparations	N/A	N/A	N/A	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in</p>

	where opportunity for exposure arises							vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#42: General mixing and blending process	<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 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</p>	ERC 2: Formulation of preparations	N/A	N/A	N/A	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>

	<p>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 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation</p> <p>PROC 15: Use as laboratory reagent</p>							
#40: General manufacturing and formulation procedures	<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 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>ERC 2: Formulation of preparations</p> <p>ERC 1: Manufacture of substances</p>	N/A	N/A	N/A	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>
#39: Manufacture of rubber products (General Rubber Goods): Others	<p>PROC 5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)</p>	<p>ERC 3: Formulation in materials</p> <p>ERC 4: Industrial use of processing</p>	N/A	PC 32: Polymer preparations and compounds	N/A	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in</p>

	<p>PROC 7: Industrial spraying</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 12: Use of blowing agents in manufacture of foam</p> <p>PROC 13: Treatment of articles by dipping and pouring</p> <p>PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation</p> <p>PROC 21: Low energy manipulation of substances bound in materials and/or articles</p>	<p>aids in processes and products, not becoming part of articles</p> <p>ERC 6d: Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers</p>						<p>vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>
#37: Manufacture of rubber products (General Rubber Goods): Latex chemicals	<p>PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</p> <p>PROC 5: Mixing or blending in batch processes for</p>	<p>ERC 3: Formulation in materials</p> <p>ERC 4: Industrial use of processing aids in processes and products,</p>	N/A	PC 32: Polymer preparations and compounds	N/A	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation</p>

	<p>formulation of preparations and articles (multistage and/or significant contact)</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 12: Use of blowing agents in manufacture of foam</p> <p>PROC 13: Treatment of articles by dipping and pouring</p> <p>PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation</p> <p>PROC 21: Low energy manipulation of substances bound in materials and/or articles</p>	<p>not becoming part of articles</p> <p>ERC 6d: Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers</p>						<p>on processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>
#36: Manufacture of rubber products (General Rubber Goods): Other Agents (solvents, emulsifiers, reinforcing agents)	<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 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large</p>	<p>ERC 3: Formulation in materials</p> <p>ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles</p> <p>ERC 6d:</p>	N/A	<p>PC 9a: Coatings and paints, thinners, paint removes</p> <p>PC 18: Ink and toners</p> <p>PC 32: Polymer preparations and compounds</p>	N/A	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p>

	<p>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 12: Use of blowing agents in manufacture of foam</p> <p>PROC 13: Treatment of articles by dipping and pouring</p> <p>PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation</p> <p>PROC 21: Low energy manipulation of substances bound in materials and/or articles</p>	<p>Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers</p>						<p>slip additive; mold release, flow modifier</p>
<p>#35: Manufacture of rubber products (General Rubber Goods): Processing aids</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 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</p> <p>PROC 9: Transfer</p>	<p>ERC 3: Formulation in materials</p>	N/A	<p>PC 24: Lubricants, greases, release products</p> <p>PC 32: Polymer preparations and compounds</p>	N/A	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold</p>

	<p>of substance or preparation into small containers (dedicated filling line, including weighing)</p> <p>PROC 10: Roller application or brushing</p> <p>PROC 12: Use of blowing agents in manufacture of foam</p> <p>PROC 13: Treatment of articles by dipping and pouring</p> <p>PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation</p> <p>PROC 21: Low energy manipulation of substances bound in materials and/or articles</p>							release, flow modifier
#34: Manufacture of rubber products (General Rubber Goods): Antidegradants, Fillers & Pigments and Plasticisers	<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 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</p>	ERC 3: Formulation in materials	N/A	PC 32: Polymer preparations and compounds	N/A	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>

	<p>(dedicated filling line, including weighing)</p> <p>PROC 10: Roller application or brushing</p> <p>PROC 12: Use of blowing agents in manufacture of foam</p> <p>PROC 13: Treatment of articles by dipping and pouring</p> <p>PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation</p> <p>PROC 21: Low energy manipulation of substances bound in materials and/or articles</p>							
#28: Manufacture of rubber products (Tyres): Filter Activator and Bonding Agents	<p>PROC 5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)</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 14: Production of</p>	ERC 3: Formulation in materials	N/A	PC 32: Polymer preparations and compounds	N/A	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>

	<p>preparations or articles by tableting, compression, extrusion, pelletisation</p> <p>PROC 21: Low energy manipulation of substances bound in materials and/or articles</p>							
#27: Manufacture of rubber products (Tyres): Tackifier	<p>PROC 5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)</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 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation</p> <p>PROC 21: Low energy manipulation of substances bound in materials and/or articles</p>	<p>ERC 3: Formulation in materials</p> <p>ERC 10b: Wide dispersive outdoor use of long-life articles and materials with high or intended release (including abrasive processing)</p>	N/A	PC 32: Polymer preparations and compounds	N/A	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>
#26: Manufacture of rubber products (Tyres): Lubricants	<p>PROC 9: Transfer of substance or preparation into small containers (dedicated filling</p>	<p>ERC 3: Formulation in materials</p> <p>ERC 10b: Wide</p>	N/A	PC 24: Lubricants, greases, release products	N/A	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process</p>

	line, including weighing) PROC 10: Roller application or brushing PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation	dispersive outdoor use of long-life articles and materials with high or intended release (including abrasive processing)		PC 32: Polymer preparations and compounds				regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#25: Manufacture of rubber products (Tyres): Antidegradants, Fillers&Pigments, Plasticisers and Reinforcing Agents	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 PROC 21: Low energy manipulation of substances bound in materials and/or articles PROC 10: Roller	ERC 3: Formulation in materials ERC 10b: Wide dispersive outdoor use of long-life articles and materials with high or intended release (including abrasive processing)	N/A	PC 32: Polymer preparations and compounds	N/A	N/A	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier

	application or brushing							
#20: Adhesive and sealants manufacture	<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 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 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation</p> <p>PROC 8a: Transfer of substance or</p>	ERC 2: Formulation of preparations	N/A	PC 1: Adhesives, sealants	N/A	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>

	preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities							
#19: General manufacturing process	<p>PROC 3: Use in closed batch process (synthesis or formulation)</p> <p>PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</p>	<p>ERC 2: Formulation of preparations</p> <p>ERC 1: Manufacture of substances</p>	N/A	N/A	N/A	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>
#18: Formulating & Converting of thermoplastics additives	<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 6: Calendering operations</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</p>	<p>ERC 3: Formulation in materials</p> <p>ERC 5: Industrial use resulting in inclusion into or onto a matrix</p>	N/A	PC 32: Polymer preparations and compounds	N/A	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>

	<p>(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 12: Use of blowing agents in manufacture of foam</p> <p>PROC 13: Treatment of articles by dipping and pouring</p> <p>PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation</p> <p>PROC 21: Low energy manipulation of substances bound in materials and/or articles</p> <p>PROC 24: High (mechanical) energy work-up of substances bound in materials and/or articles</p>							
#8: Manufacturing of cleaning and Maintenance Products	<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>	ERC 2: Formulation of preparations	N/A	PC 35: Washing and cleaning products (including solvent based products)	N/A	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation</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 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 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation</p> <p>PROC 15: Use as laboratory reagent</p>							<p>on processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>
#6: (Industrial) Handling and dilution of metalworking fluid concentrates	<p>PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</p> <p>PROC 5: Mixing or blending in batch processes for formulation of</p>	ERC 2: Formulation of preparations	N/A	PC 25: Metal working fluids	N/A	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p>

	preparations and articles (multistage and/or significant contact)							Processing aid, not otherwise listed slip additive; mold release, flow modifier
#2: Industrial formulation of lubricant additives, lubricants and greases	<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 15: Use as laboratory reagent</p>	ERC 2: Formulation of preparations	N/A	<p>PC 17: Hydraulic fluids</p> <p>PC 24: Lubricants, greases, release products</p> <p>PC 25: Metal working fluids</p>	N/A	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>

Use at industrial sites

Identified Use (IU) name	Process Category (PROC)	Environmental Release Category (ERC)	Substance supplied to that use in form of	Product Category (PC)	Sector of Use (SU)	Subsequent service life relevant for that use	Article Category (AC)	Technical function of the substance during formulation
#79: Manufacture of paper	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	ERC 5: Industrial use resulting in inclusion into or onto a matrix	N/A	N/A	SU 6b: Manufacture of pulp, paper and paper products	no	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#78: Leather finishing	PROC 10: Roller application or brushing	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	N/A	PC 23: Leather tanning, dye, finishing, impregnation and care products PC 32: Polymer preparations and compounds	SU 5: Manufacture of textiles, leather, fur	no	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier

<p>#77: Application of processing aids application of spin finishes by spraying</p>	<p>PROC 7: Industrial spraying</p>	<p>ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles</p>	<p>N/A</p>	<p>PC 24: Lubricants, greases, release products PC 34: Textile dyes, finishing and impregnating products; including bleaches and other processing aids</p>	<p>SU 5: Manufacture of textiles, leather, fur</p>	<p>no</p>	<p>N/A</p>	<p>Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier</p>
<p>#76: Application of processing aids application of spin finishes by various technologies e.g. dipping or pouring; process temperature low</p>	<p>PROC 13: Treatment of articles by dipping and pouring</p>	<p>ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles</p>	<p>N/A</p>	<p>PC 24: Lubricants, greases, release products PC 34: Textile dyes, finishing and impregnating products; including bleaches and other processing aids</p>	<p>SU 5: Manufacture of textiles, leather, fur</p>	<p>no</p>	<p>N/A</p>	<p>Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier</p>
<p>#75: Application of processing aids application of spin finishes by various technologies</p>	<p>PROC 17: Lubrication at high energy conditions and in partly open process</p>	<p>ERC 4: Industrial use of processing aids in processes and products,</p>	<p>N/A</p>	<p>PC 24: Lubricants, greases, release products PC 34: Textile dyes,</p>	<p>SU 5: Manufacture of textiles, leather, fur</p>	<p>no</p>	<p>N/A</p>	<p>Lubricants and lubricant additives Process regulators, used in</p>

e.g. lick rollers or nozzles in fiber lines; process temperature high		not becoming part of articles		finishing and impregnating products; including bleaches and other processing aids				vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#74: Handling transfer of processing aids from/to vessels at dedicated facilities	PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities	ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles	N/A	PC 24: Lubricants, greases, release products PC 34: Textile dyes, finishing and impregnating products; including bleaches and other processing aids	SU 5: Manufacture of textiles, leather, fur	no	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#69: Recycling processes	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)	ERC 2: Formulations of preparations ERC 8a: Wide dispersive indoor use of processing aids in open systems	N/A	PC 29: Pharmaceuticals PC 39: Cosmetics, personal care products	SU 23: Electricity, steam, gas water supply and sewage treatment	N/A	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not

	<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 15: Use as laboratory reagent</p>							<p>otherwise listed</p> <p>slip additive; mold release, flow modifier</p>
#68: General industrial formulation process	<p>PROC 1: Use in closed process, no likelihood of exposure</p> <p>PROC 2: Use in closed, continuous process with occasional controlled</p>	<p>ERC 1: Manufacture of substances</p> <p>ERC 2: Formulation of preparations</p> <p>ERC 6a:</p>	N/A	N/A	SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation</p>

	<p>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>Industrial use resulting in manufacture of another substance (use of intermediates)</p> <p>ERC 6b: Industrial use of reactive processing aids</p> <p>ERC 6c: Industrial use of monomers for manufacture of thermoplastics</p> <p>ERC 6d: Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers</p> <p>ERC 7: Industrial use of substances in closed systems</p>					<p>ion processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>	
#67: Industrial formulation	<p>PROC 1: Use in closed process, no likelihood of exposure</p> <p>PROC 2: Use in closed, continuous</p>	<p>ERC 2: Formulation of preparations</p> <p>ERC 8a: Wide</p>	N/A	<p>PC 29: Pharmaceuticals</p> <p>PC 39: Cosmetics, personal care products</p>	<p>SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding</p>	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in</p>

	<p>process with occasional controlled exposure</p> <p>PROC 3: Use in closed batch process (synthesis or formulation)</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>dispersive indoor use of processing aids in open systems</p>			alloys)			<p>vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>
#66: Industrial production of fine chemicals	<p>PROC 1: Use in closed process, no likelihood of exposure</p> <p>PROC 2: Use in closed, continuous process with occasional controlled</p>	<p>ERC 2: Formulation of preparations</p> <p>ERC 1: Manufacture of substances</p> <p>ERC 6a:</p>	N/A	N/A	SU 9: Manufacture of fine chemicals	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation</p>

	<p>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 9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)</p> <p>PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation</p>	<p>Industrial use resulting in manufacture of another substance (use of intermediates)</p> <p>ERC 6b: Industrial use of reactive processing aids</p> <p>ERC 6c: Industrial use of monomers for manufacture of thermoplastics</p> <p>ERC 6d: Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers</p> <p>ERC 7: Industrial use of substances in closed systems</p>						<p>ion processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>
#65: Industrial manufacturing of laboratory chemicals	<p>PROC 4: Use in batch and other process (synthesis) where opportunity for exposure arises</p>	<p>ERC 6a: Industrial use resulting in manufacture of another substance (use of intermediates)</p>	N/A	PC 21: Laboratory chemicals	SU 8: Manufacture of bulk, large scale chemicals (including petroleum products)	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation</p>

								processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#64: General industrial production of intermediates	PROC 3: Use in closed batch process (synthesis or formulation)	N/A	N/A	PC 19: Intermediate	SU 0: Other: Industrial uses: Industrial use as such or in preparations at industrial sites	N/A	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#63: Industrial production of Lubricants, greases, release products	PROC 1: Use in closed process, no likelihood of 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	N/A	N/A	PC 24: Lubricants, greases, release products	SU 0: Other: Industrial uses: Industrial use as such or in preparations at industrial sites	N/A	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive;

	vessels/large containers at dedicated facilities							mold release, flow modifier
#62: General industrial production	<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 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 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</p>	<p>ERC 1: Manufacture of substances</p> <p>ERC 2: Formulation of preparations</p> <p>ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles</p> <p>ERC 5: Industrial use resulting in inclusion into or onto a matrix</p> <p>ERC 6a: Industrial use resulting in manufacture of another substance (use of intermediates)</p> <p>ERC 6b: Industrial use of reactive processing aids</p> <p>ERC 6c: Industrial use of monomers for manufacture of</p>	N/A	N/A	SU 0: Other: Industrial uses: Industrial use as such or in preparations at industrial sites	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>

	<p>containers at dedicated facilities</p> <p>PROC 9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)</p> <p>PROC 13: Treatment of articles by dipping and pouring</p> <p>PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation</p> <p>PROC 17: Lubrication at high energy conditions and in partly open process</p> <p>PROC 21: Low energy manipulation of substances bound in materials and/or articles</p> <p>PROC 24: High (mechanical) energy work-up of substances bound in materials and/or articles</p>	<p>thermoplastics</p> <p>ERC 6d: Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers</p> <p>ERC 7: Industrial use of substances in closed systems</p>						
#59: Distribution: Q Controlling	PROC 15: Use as laboratory reagent	ERC 8b: Wide dispersive indoor use of reactive substances in open systems	N/A	N/A	SU 0: Other: Industrial use: Industrial uses as such or in preparations at industrial sites	N/A	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation

								processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#54: Polymer industry: plastic	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 6: Calendering operations PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation	N/A	N/A	PC 32: Polymer preparations and compounds	SU 23: Electricity, steam, gas water supply and sewage treatment	N/A	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#52: Use of additive in a plastic masterbatch or compound	PROC 15: Use as laboratory reagent	ERC 8b: Wide dispersive indoor use of reactive substances in open systems	N/A	N/A	SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)	N/A	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip

								additive; mold release, flow modifier
#50: General manufacture of lubricants and greases	PROC 17: Lubrication at high energy conditions and in partly open process	ERC 7: Industrial use of substances in closed systems	N/A	PC 24: Lubricants, greases, release products	SU 17: General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment	N/A	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#49: General manufacture of lubricants and greases	PROC 7: Industrial spraying	ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles	N/A	PC 24: Lubricants, greases, release products	SU 17: General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment	N/A	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#48: General manufacture of metal	PROC 17: Lubrication at high energy	ERC 4: Industrial use of	N/A	PC 25: Metal working	SU 15: Manufacture of	N/A	N/A	Lubricants and lubricant

working fluids	conditions and in partly open process	processing aids in processes and products, not becoming part of articles		fluids	fabricated metal products, except machinery and equipment			additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#45: Release agent/lubricant in food manufacture	PROC 7: Industrial spraying	ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles	N/A	PC 24: Lubricants, greases, release products	SU 4: Manufacture of food products	N/A	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#39: Manufacture of rubber products (General Rubber Goods): Others	PROC 5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact) PROC 7: Industrial	ERC 3: Formulation in materials ERC 4: Industrial use of processing aids in processes and	N/A	PC 32: Polymer preparations and compounds	SU 11: Manufacture of rubber products	N/A	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation

	<p>spraying</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 12: Use of blowing agents in manufacture of foam</p> <p>PROC 13: Treatment of articles by dipping and pouring</p> <p>PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation</p> <p>PROC 21: Low energy manipulation of substances bound in materials and/or articles</p>	<p>products, not becoming part of articles</p> <p>ERC 6d: Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers</p>						<p>ion processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>
#38: Manufacture of rubber products (General Rubber Goods): Release Agents	<p>PROC 7: Industrial spraying</p> <p>PROC 8b: Transfer of substance or preparation (charging/discharging) from/to</p>	<p>ERC 4: Industrial use of processing aids in processes and products, not becoming</p>	N/A	<p>PC 24: Lubricants, greases, release products</p> <p>PC 32: Polymer preparations and</p>	SU 11: Manufacture of rubber products	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or</p>

	<p>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 12: Use of blowing agents in manufacture of foam</p> <p>PROC 13: Treatment of articles by dipping and pouring</p> <p>PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation</p> <p>PROC 21: Low energy manipulation of substances bound in materials and/or articles</p>	part of articles		compounds				<p>polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>
#37: Manufacture of rubber products (General Rubber Goods): Latex chemicals	<p>PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</p> <p>PROC 5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or</p>	<p>ERC 3: Formulation in materials</p> <p>ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles</p>	N/A	PC 32: Polymer preparations and compounds	SU 11: Manufacture of rubber products	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p>

	<p>significant contact)</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 12: Use of blowing agents in manufacture of foam</p> <p>PROC 13: Treatment of articles by dipping and pouring</p> <p>PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation</p> <p>PROC 21: Low energy manipulation of substances bound in materials and/or articles</p>	<p>ERC 6d: Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers</p>						<p>slip additive; mold release, flow modifier</p>
#36: Manufacture of rubber products (General Rubber Goods): Other Agents (solvents, emulsifiers, reinforcing agents)	<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 8b: Transfer of substance or preparation (charging/discharging) from/to</p>	<p>ERC 3: Formulation in materials</p> <p>ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles</p> <p>ERC 6d: Industrial</p>	N/A	<p>PC 9a: Coatings and paints, thinners, paint removes</p> <p>PC 18: Ink and toners</p> <p>PC 32: Polymer preparations and compounds</p>	SU 11: Manufacture of rubber products	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip</p>

	<p>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 12: Use of blowing agents in manufacture of foam</p> <p>PROC 13: Treatment of articles by dipping and pouring</p> <p>PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation</p> <p>PROC 21: Low energy manipulation of substances bound in materials and/or articles</p>	<p>use of process regulators for polymerisation processes in production of resins, rubbers, polymers</p>						<p>additive; mold release, flow modifier</p>
<p>#33: Manufacture of rubber products (General Rubber Goods): Vulcanisation Agents</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 8b: Transfer of substance or preparation</p>	<p>ERC 6d: Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers</p>	N/A	<p>PC 32: Polymer preparations and compounds</p>	<p>SU 11: Manufacture of rubber products</p>	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p>

	<p>(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 12: Use of blowing agents in manufacture of foam</p> <p>PROC 13: Treatment of articles by dipping and pouring</p> <p>PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation</p> <p>PROC 21: Low energy manipulation of substances bound in materials and/or articles</p>							<p>slip additive; mold release, flow modifier</p>
#32: Manufacture of rubber products (General Rubber Goods): Mastication Agents	<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 8b: Transfer of</p>	ERC 6d: Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers	N/A	N/A	SU 11: Manufacture of rubber products	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not</p>

	<p>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>otherwise listed</p> <p>slip additive; mold release, flow modifier</p>
#31: Manufacture of rubber products (Tyres): Release Agents	<p>PROC 7: Industrial spraying</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 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation</p>	ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles	N/A	PC 24: Lubricants, greases, release products	SU 11: Manufacture of rubber products	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>
#30: Manufacture of rubber products (Tyres): Solvents	<p>PROC 7: Industrial spraying</p> <p>PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</p>	ERC 4: Industrial use of processing aids in processes and products,	N/A	<p>PC 9a: Coatings and paints, thinners, paint removes</p> <p>PC 18: Ink and toners</p>	SU 11: Manufacture of rubber products	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation</p>

	<p>ging) 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 21: Low energy manipulation of substances bound in materials and/or articles</p>	not becoming part of articles						<p>n or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>
#29: Manufacture of rubber products (Tyres): Emulsifiers	<p>PROC 7: Industrial spraying</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 21: Low energy manipulation of substances bound in materials and/or articles</p>	<p>ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles</p>	N/A	PC 18: Ink and toners	SU 11: Manufacture of rubber products	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>
#27: Manufacture of rubber products (Tyres): Tackifier	<p>PROC 5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)</p> <p>PROC 8b:</p>	<p>ERC 3: Formulation in materials</p> <p>ERC 10b: Wide dispersive outdoor use of long-life articles and</p>	N/A	PC 32: Polymer preparations and compounds	SU 11: Manufacture of rubber products	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or</p>

	<p>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 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation</p> <p>PROC 21: Low energy manipulation of substances bound in materials and/or articles</p>	<p>materials with high or intended release (including abrasive processing)</p>						<p>polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>
#26: Manufacture of rubber products (Tyres): Lubricants	<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 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation</p>	<p>ERC 3: Formulation in materials</p> <p>ERC 10b: Wide dispersive outdoor use of long-life articles and materials with high or intended release (including abrasive processing)</p>	N/A	<p>PC 24: Lubricants, greases, release products</p> <p>PC 32: Polymer preparations and compounds</p>	SU 11: Manufacture of rubber products	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>
#25:	PROC 5: Mixing	ERC 3:	N/A	PC 32:	SU 11:	N/A	N/A	Lubricants

<p>Manufacture of rubber products (Tyres): Antidegradants, Fillers&Pigments, Plasticisers and Reinforcing Agents</p>	<p>or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)</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 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation</p> <p>PROC 21: Low energy manipulation of substances bound in materials and/or articles</p> <p>PROC 10: Roller application or brushing</p>	<p>Formulation in materials</p> <p>ERC 10b: Wide dispersive outdoor use of long-life articles and materials with high or intended release (including abrasive processing)</p>		<p>Polymer preparations and compounds</p>	<p>Manufacture of rubber products</p>			<p>and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>
<p>#24: Manufacture of rubber products (Tyres): Vulcanisation Agents</p>	<p>PROC 5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)</p> <p>PROC 8b: Transfer of substance or preparation</p>	<p>ERC 6d: Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers</p>	<p>N/A</p>	<p>PC 32: Polymer preparations and compounds</p>	<p>SU 11: Manufacture of rubber products</p>	<p>N/A</p>	<p>N/A</p>	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p>

	<p>(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 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation</p> <p>PROC 21: Low energy manipulation of substances bound in materials and/or articles</p>	<p>ERC 10b: Wide dispersive outdoor use of long-life articles and materials with high or intended release (including abrasive processing)</p>						<p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>
#23: Manufacture of rubber products (Tyres): Mastication Agents	<p>PROC 5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)</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</p>	<p>ERC 6d: Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers</p>	N/A	N/A	SU 11: Manufacture of rubber products	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>

	weighing)							
#22: Industrial application of coatings and inks	<p>PROC 1: Use in closed process, no likelihood of exposure</p> <p>PROC 3: Use in closed batch process (synthesis or formulation)</p> <p>PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</p> <p>PROC 8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities</p> <p>PROC 5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)</p> <p>PROC 2: Use in closed, continuous process with occasional controlled exposure</p> <p>PROC 7: Industrial spraying</p> <p>PROC 13: Treatment of articles by dipping and pouring</p>	<p>ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles</p> <p>ERC 5: Industrial use resulting in inclusion into or onto a matrix</p>	N/A	<p>PC 18: Ink and toners</p> <p>PC 9a: Coatings and paints, thinners, paint removes</p>	<p>SU 0: Other: Industrial use: Industrial uses as such or in preparations at industrial sites</p>	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>

	<p>PROC 4: Use in batch and other process (synthesis) where opportunity for exposure arises</p> <p>PROC 10: Roller application or brushing</p>							
#21: Adhesive and sealants industrial use	<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 7: Industrial spraying</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 13: Treatment of articles by dipping and pouring</p> <p>PROC 14:</p>	<p>ERC 5: Industrial use resulting in inclusion into or onto a matrix</p>	N/A	<p>PC 1: Adhesives, sealants</p>	<p>SU 0: Other: Industrial use: Industrial uses as such or in preparations at industrial sites</p>	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>

	<p>Production of preparations or articles by tableting, compression, extrusion, pelletisation</p> <p>PROC 17: Lubrication at high energy conditions and in partly open process</p> <p>PROC 12: Use of blowing agents in manufacture of foam</p> <p>PROC 8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities</p>							
#18: Formulating & Converting of thermoplastics additives	<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 6: Calendering operations</p> <p>PROC 8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated</p>	<p>ERC 3: Formulation in materials</p> <p>ERC 5: Industrial use resulting in inclusion into or onto a matrix</p>	N/A	PC 32: Polymer preparations and compounds	SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys)	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>

	<p>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 12: Use of blowing agents in manufacture of foam</p> <p>PROC 13: Treatment of articles by dipping and pouring</p> <p>PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation</p> <p>PROC 21: Low energy manipulation of substances bound in materials and/or articles</p> <p>PROC 24: High (mechanical) energy work-up of substances bound in materials and/or articles</p>							
#17: Industrial use of metal	PROC 2: Use in closed,	ERC 4: Industrial	N/A	PC 14: Metal surface	SU 0: Other:	N/A	N/A	Lubricants and

<p>treatment products: Metal surface treatment products</p>	<p>continuous process with occasional controlled exposure</p> <p>PROC 4: Use in batch and other process (synthesis) where opportunity for exposure arises</p> <p>PROC 10: Roller application or brushing</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>use of processing aids in processes and products, not becoming part of articles</p>		<p>treatment products, including galvanic and electroplating products</p>	<p>Industrial use: Industrial uses as such or in preparations at industrial sites</p>			<p>lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>
<p>#16: Industrial use of quality control</p>	<p>PROC 15: Use as laboratory reagent</p>	<p>ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles</p>	<p>N/A</p>	<p>PC 21: Laboratory chemicals</p>	<p>SU 0: Other: Industrial use: Industrial uses as such or in preparations at industrial sites</p>	<p>N/A</p>	<p>N/A</p>	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold</p>

								release, flow modifier
#15: Industrial use of metal treatment products: Washing and cleaning products	<p>PROC 8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities</p> <p>PROC 10: Roller application or brushing</p> <p>PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</p> <p>PROC 2: Use in closed, continuous process with occasional controlled exposure</p> <p>PROC 4: Use in batch and other process (synthesis) where opportunity for exposure arises</p>	ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles	N/A	PC 35: Washing and cleaning products (including solvent based products)	SU 0: Other: Industrial use: Industrial uses as such or in preparations at industrial sites	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>
#14: Industrial use of metal treatment products: Metal working fluids	<p>PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</p> <p>PROC 17: Lubrication at high energy conditions and in partly open</p>	ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles	N/A	PC 25: Metal working fluids	SU 0: Other: Industrial use: Industrial uses as such or in preparations at industrial sites	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not</p>

	process PROC 24: High (mechanical) energy work-up of substances bound in materials and/or articles							otherwise listed slip additive; mold release, flow modifier
#13: Industrial use of metal treatment products: Metal surface treatment products	PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities PROC 8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities PROC 2: Use in closed, continuous process with occasional controlled exposure PROC 10: Roller application or brushing	ERC 5: Industrial use resulting in inclusion into or onto a matrix	N/A	PC 14: Metal surface treatment products, including galvanic and electroplating products	SU 0: Other: Industrial use: Industrial uses as such or in preparations at industrial sites	N/A	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#12: Industrial use of Facade/Surface cleaning products	PROC 8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities PROC 7: Industrial spraying PROC 11: Non industrial spraying	ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles	N/A	PC 35: Washing and cleaning products (including solvent based products)	SU 0: Other: Industrial use: Industrial uses as such or in preparations at industrial sites	N/A	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise

								listed slip additive; mold release, flow modifier
#11: Industrial use of food beverage and pharmacos products	<p>PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</p> <p>PROC 1: Use in closed process, no likelihood of exposure</p> <p>PROC 4: Use in batch and other process (synthesis) where opportunity for exposure arises</p> <p>PROC 8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities</p> <p>PROC 7: Industrial spraying</p> <p>PROC 13: Treatment of articles by dipping and pouring</p> <p>PROC 10: Roller application or brushing</p> <p>PROC 11: Non industrial spraying</p>	ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles	N/A	PC 35: Washing and cleaning products (including solvent based products)	SU 0: Other: Industrial use: Industrial uses as such or in preparations at industrial sites	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>
#10: Industrial uses of vehicle	PROC 8a: Transfer of	ERC 4: Industrial	N/A	PC 35: Washing and	SU 0: Other:	N/A	N/A	Lubricants and

cleaning products	substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities PROC 4: Use in batch and other process (synthesis) where opportunity for exposure arises PROC 10: Roller application or brushing PROC 11: Non industrial spraying	use of processing aids in processes and products, not becoming part of articles		cleaning products (including solvent based products)	Industrial use: Industrial uses as such or in preparations at industrial sites			lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#9: Industrial use of Laundry Products	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	ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles ERC 6b: Industrial use of reactive processing aids ERC 8a: Wide dispersive indoor use of processing aids in open systems	N/A	PC 35: Washing and cleaning products (including solvent based products)	SU 0: Other: Industrial use: Industrial uses as such or in preparations at industrial sites	N/A	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#7: (Industrial) Use of lubricants in high energy open processes, e.g. in high speed	PROC 2: Use in closed, continuous process with occasional controlled exposure	ERC 4: Industrial use of processing aids in processes and products,	N/A	PC 25: Metal working fluids PC 24: Lubricants, greases, release	SU 0: Other: Industrial use: Industrial uses as such or in preparations	N/A	N/A	Lubricants and lubricant additives Process regulators, used in

<p>machinery such as metal rolling / forming or metalworking fluids for machining and grinding</p>	<p>PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</p> <p>PROC 17: Lubrication at high energy conditions and in partly open process</p>	<p>not becoming part of articles</p>		<p>products</p>	<p>at industrial sites</p>			<p>vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>
<p>#5: (Industrial) Use of lubricants in open high temperature processes, e.g. quenching fluids, glass release agents</p>	<p>PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</p> <p>PROC 13: Treatment of articles by dipping and pouring</p>	<p>ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles</p>	<p>N/A</p>	<p>PC 24: Lubricants, greases, release products</p> <p>PC 25: Metal working fluids</p>	<p>SU 0: Other: Industrial use: Industrial uses as such or in preparations at industrial sites</p>	<p>N/A</p>	<p>N/A</p>	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>
<p>#4: (Industrial) Application of lubricant to work pieces or equipment by dipping, brushing or spraying (without exposure to heat), e.g. mould releases, corrosion protection,</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</p>	<p>ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles</p>	<p>N/A</p>	<p>PC 24: Lubricants, greases, release products</p>	<p>SU 0: Other: Industrial use: Industrial uses as such or in preparations at industrial sites</p>	<p>N/A</p>	<p>N/A</p>	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not</p>

slideways	line, including weighing) PROC 7: Industrial spraying PROC 10: Roller application or brushing PROC 13: Treatment of articles by dipping and pouring							otherwise listed slip additive; mold release, flow modifier
#3: General industrial use of lubricants and greases in vehicles or machinery. Includes filling and draining of containers and enclosed machinery (including engines)	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 2: Use in closed, continuous process with occasional controlled exposure PROC 1: Use in closed process, no likelihood of exposure	Environmental release category (ERC): ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles ERC 7: Industrial use of substances in closed systems	N/A	PC 17: Hydraulic fluids PC 24: Lubricants, greases, release products	SU 0: Other: Industrial use: Industrial Uses as such or in preparations at industrial sites	N/A	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier

Use by professional workers

Identified Use (IU) name	Process Category (PROC)	Environmental Release Category (ERC)	Substance supplied to that use in form of	Product Category (PC)	Sector of Use (SU)	Subsequent service life relevant for that use	Article Category (AC)	Technical function of the substance during formulation
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<p>#1: General professional use of lubricants and greases in vehicles or machinery. Includes filling and draining of containers and enclosed machinery (including engines)</p>	<p>PROC 1: Use in closed process, no likelihood of exposure</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 20: Heat and pressure transfer fluids in dispersive, professional use but closed systems</p>	<p>ERC 9b: Wide dispersive outdoor use of substances in closed systems</p> <p>ERC 9a: Wide dispersive indoor use of substances in closed systems</p>	<p>N/A</p>	<p>PC 17: Hydraulic fluids</p> <p>PC 24: Lubricants, greases, release products</p>	<p>SU 0: Other: Professional use: Public domain</p>	<p>N/A</p>	<p>N/A</p>	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>
<p>#2: (Professional) Application of lubricant to work pieces or equipment by dipping, brushing or spraying (without exposure to heat), e.g. mould releases, corrosion protection, slideways</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 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>ERC 8a: Wide dispersive indoor use of processing aids in open systems</p> <p>ERC 8d: Wide dispersive outdoor use of processing aids in open systems</p>	<p>N/A</p>	<p>PC 24: Lubricants, greases, release products</p>	<p>SU 0: Other: Professional use: Public domain</p>	<p>N/A</p>	<p>N/A</p>	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>

<p>#3: (Professional) Use of lubricants in high energy open processes, e.g. in high speed machinery such as metal rolling / forming or metalworking fluids for machining and grinding</p>	<p>PROC 8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities PROC 17: Lubrication at high energy conditions and in partly open process</p>	<p>ERC 8a: Wide dispersive indoor use of processing aids in open systems</p>	<p>N/A</p>	<p>PC 24: Lubricants, greases, release products PC 25: Metal working fluids</p>	<p>SU 0: Other: Professional use: Public domain</p>	<p>N/A</p>	<p>N/A</p>	<p>Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier</p>
<p>#4: Professional use of laundry products</p>	<p>PROC 8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities PROC 1: Use in closed process, no likelihood of exposure PROC 11: Non industrial spraying</p>	<p>ERC 8a: Wide dispersive indoor use of processing aids in open systems</p>	<p>N/A</p>	<p>PC 35: Washing and cleaning products (including solvent based products)</p>	<p>SU 0: Other: Professional uses: Public domain</p>	<p>N/A</p>	<p>N/A</p>	<p>Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier</p>

#5: Professional use of laundry products	PROC 1: Use in closed process, no likelihood of exposure PROC 8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities	ERC 8b: Wide dispersive indoor use of reactive substances in open systems	N/A	PC 35: Washing and cleaning products (including solvent based products)	SU 0: Other: Professional uses: Public domain	N/A	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#6: Professional use of dishwash products	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 1: Use in closed process, no likelihood of exposure PROC 2: Use in closed, continuous process with occasional controlled exposure PROC 10: Roller application or brushing	ERC 8a: Wide dispersive indoor use of processing aids in open systems	N/A	PC 35: Washing and cleaning products (including solvent based products)	SU 0: Other: Professional uses: Public domain	N/A	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#7: Professional use of	PROC 8a: Transfer of substance or preparation	ERC 8a: Wide dispersive	N/A	PC 35: Washing and	SU 0: Other: Professional	N/A	N/A	Lubricants and lubricant

general surface cleaning products	(charging/discharging) from/to vessels/large containers at non-dedicated facilities PROC 10: Roller application or brushing PROC 11: Non industrial spraying PROC 13: Treatment of articles by dipping and pouring	indoor use of processing aids in open systems		cleaning products (including solvent based products)	al uses: Public domain			additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#8: Professional use of floor care products	PROC 8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities PROC 10: Roller application or brushing PROC 11: Non industrial spraying	ERC 8a: Wide dispersive indoor use of processing aids in open systems	N/A	PC 35: Washing and cleaning products (including solvent based products)	SU 0: Other: Professional uses: Public domain	N/A	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#9: Professional use of floor care products: Polishes and wax	PROC 10: Roller application or brushing PROC 11: Non industrial spraying	ERC 8a: Wide dispersive indoor use of processing aids in open	N/A	PC 31: Polishes and wax blends	SU 0: Other: Professional uses: Public domain	N/A	N/A	Lubricants and lubricant additives Process regulators, used in

blends		systems						vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#10: Professional use of maintenance products: Polishes and wax blends	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 10: Roller application or brushing PROC 11: Non industrial spraying	ERC 8a: Wide dispersive indoor use of processing aids in open systems	N/A	PC 31: Polishes and wax blends	SU 0: Other: Professional uses: Public domain	N/A	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#11: Professional use of maintenance products: Washing and cleaning products	PROC 8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities	ERC 8a: Wide dispersive indoor use of processing aids in open systems	N/A	PC 35: Washing and cleaning products (including solvent based products)	SU 0: Other: Professional uses: Public domain	N/A	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation

								processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#12: Professional use of vehicle cleaning products	PROC 4: Use in batch and other process (synthesis) where opportunity for exposure arises PROC 10: Roller application or brushing PROC 11: Non industrial spraying PROC 8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities	ERC 8a: Wide dispersive indoor use of processing aids in open systems	N/A	PC 35: Washing and cleaning products (including solvent based products)	SU 0: Other: Professional uses: Public domain	N/A	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#13: Professional use of food beverage and pharmacos products	PROC 8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities PROC 10: Roller application or brushing	ERC 8a: Wide dispersive indoor use of processing aids in open systems	N/A	PC 35: Washing and cleaning products (including solvent based products)	SU 0: Other: Professional uses: Public domain	N/A	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid,

								not otherwise listed slip additive; mold release, flow modifier
#14: Professional use of Facade/Surface cleaning products	PROC 7: Industrial spraying PROC 8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities PROC 11: Non industrial spraying	ERC 8d: Wide dispersive outdoor use of processing aids in open systems	N/A	PC 35: Washing and cleaning products (including solvent based products)	SU 0: Other: Professional uses: Public domain	N/A	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#15: Professional use of medical devices	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 10: Roller application or brushing PROC 11: Non industrial spraying PROC 13: Treatment of articles by dipping	ERC 8a: Wide dispersive indoor use of processing aids in open systems	N/A	PC 35: Washing and cleaning products (including solvent based products)	SU 0: Other: Professional uses: Public domain	N/A	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip

	and pouring							additive; mold release, flow modifier
#16: Professional laboratory use	PROC 15: Use as laboratory reagent	ERC 8a: Wide dispersive indoor use of processing aids in open systems	N/A	PC 21: Laboratory chemicals	SU 0: Other: Professional uses: Public domain	N/A	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#17: Adhesive and sealants professional use	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 10: Roller application or brushing PROC 11: Non industrial spraying PROC 13: Treatment of articles by dipping and pouring	ERC 8c: Wide dispersive indoor use resulting in inclusion into or onto a matrix ERC 8f: Wide dispersive outdoor use resulting in inclusion into or onto a matrix	N/A	PC 1: Adhesives, sealants	SU 0: Other: Professional uses: Public domain	N/A	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow

	<p>PROC 19: Hand-mixing with intimate contact and only PPE available.</p> <p>PROC 9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing)</p>							modifier
#18: Professional application of coatings or inks	<p>PROC 3: Use in closed batch process (synthesis or formulation)</p> <p>PROC 8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities</p> <p>PROC 19: Hand-mixing with intimate contact and only PPE available.</p> <p>PROC 5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)</p> <p>PROC 10: Roller application or brushing</p> <p>PROC 11: Non industrial spraying</p> <p>PROC 4: Use in batch and other process (synthesis) where opportunity for exposure arises</p>	<p>ERC 8d: Wide dispersive outdoor use of processing aids in open systems</p> <p>ERC 8f: Wide dispersive outdoor use resulting in inclusion into or onto a matrix</p>	N/A	<p>PC 18: Ink and toners</p> <p>PC 9a: Coatings and paints, thinners, paint removes</p>	SU 0: Other: Professional use: Public domain	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>
#19: Professional application of coatings or inks	<p>PROC 3: Use in closed batch process (synthesis or formulation)</p> <p>PROC 5: Mixing or blending in batch processes for formulation of preparations and</p>	<p>ERC 8c: Wide dispersive indoor use resulting in inclusion into or onto a matrix</p> <p>ERC 8a:</p>	N/A	<p>PC 9a: Coatings and paints, thinners, paint removes</p> <p>PC 18: Ink and</p>	SU 0: Other: Professional use: Public domain	N/A	N/A	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or</p>

	<p>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 2: Use in closed, continuous process with occasional controlled exposure</p> <p>PROC 11: Non industrial spraying</p> <p>PROC 10: Roller application or brushing</p> <p>PROC 19: Hand-mixing with intimate contact and only PPE available.</p> <p>PROC 4: Use in batch and other process (synthesis) where opportunity for exposure arises</p>	Wide dispersive indoor use of processing aids in open systems		toners				<p>polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>
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Consumer uses

Identified Use (IU) name	Process Category (PROC)	Environmental Release Category (ERC)	Substance supplied to that use in form of	Product Category (PC)	Sector of Use (SU)	Subsequent service life relevant for that use	Article Category (AC)	Technical function of the substance during Formulation
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<p>#1: General consumer use of lubricants and greases in vehicles or machinery. Includes filling and draining of containers and enclosed machinery (including engines)</p>	<p>N/A</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>N/A</p>	<p>PC 24: Lubricants, greases, release products</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>
<p>#2: (Consumer) Application of lubricant to work pieces or equipment by dipping, brushing or spraying (without exposure to heat), e.g. mould releases, corrosion protection, slideways</p>	<p>N/A</p>	<p>ERC 8a: Wide dispersive indoor use of processing aids in open systems</p> <p>ERC 8d: Wide dispersive outdoor use of processing aids in open systems</p>	<p>N/A</p>	<p>PC 24: Lubricants, greases, release products</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in vulcanisation or polymerisation processes</p> <p>Processing aid, not otherwise listed</p> <p>slip additive; mold release, flow modifier</p>
<p>#3: Consumer use of washing and cleaning products</p>	<p>N/A</p>	<p>ERC 8a: Wide dispersive indoor use of processing aids in open</p>	<p>N/A</p>	<p>PC 35: Washing and cleaning products (including solvent</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>Lubricants and lubricant additives</p> <p>Process regulators, used in</p>

		systems ERC 8b: Wide dispersive indoor use of reactive substances in open systems		based products)				vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#4: Consumer use of polishes	N/A	ERC 8a: Wide dispersive indoor use of processing aids in open systems	N/A	PC 31: Polishes and wax blends	N/A	N/A	N/A	Lubricants and lubricant additives Process regulators , used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#5: Adhesive consumer use	N/A	ERC 8c: Wide dispersive indoor use resulting in inclusion into or onto a matrix ERC 8f: Wide dispersive outdoor use resulting in inclusion into or onto	N/A	PC 1: Adhesives, sealants	N/A	N/A	N/A	Lubricants and lubricant additives Process regulators , used in vulcanisation or polymerisation processes Processing aid, not

		a matrix						otherwise listed slip additive; mold release, flow modifier
#6: Sealant consumer use	N/A	ERC 8c: Wide dispersive indoor use resulting in inclusion into or onto a matrix	N/A	PC 1: Adhesives, sealants	N/A	N/A	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#7: Consumer application of coatings	N/A	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	N/A	PC 9a: Coatings and paints, thinners, paint removes	N/A	N/A	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier

		aids in open systems ERC 8f: Wide dispersive outdoor use resulting in inclusion into or onto a matrix						
#8: Consumer use of paper	N/A	ERC 11a: Wide dispersive indoor use of long-life articles and materials with low release	N/A	N/A	N/A	N/A	N/A	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier

Article service life

Identified Use (IU) name	Process Category (PROC)	Environmental Release Category (ERC)	Substance supplied to that use in form of	Product Category (PC)	Sector of Use (SU)	Subsequent service life relevant for that use	Article Category (AC)	Technical function of the substance during formulation
#78: Leather finishing Article used by:	N/A	ERC 4: Industrial use of processing aids in processes and products, not	N/A	N/A	N/A	N/A	AC 6: Leather articles	Lubricants and lubricant additives Process regulators, used in vulcanisation or

workers		becoming part of articles ERC 5: Industrial use resulting in inclusion into or onto a matrix						polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#77: Application of processing aids application of spin finishes by spraying Article used by: Workers	N/A	ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles	N/A	N/A	N/A	N/A	AC 5: Fabrics, textiles and apparel	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#76: Application of processing aids application of spin finishes by various technologies e.g. dipping or pouring; process temperatur	N/A	ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles	N/A	N/A	N/A	N/A	AC 5: Fabrics, textiles and apparel	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed

e low Article used by: Workers								slip additive; mold release, flow modifier
#75: Application of processing aids application of spin finishes by various technologies e.g. lick rollers or nozzles in fiber lines; process temperature high Article used by: Workers	N/A	ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles	N/A	N/A	N/A	N/A	AC 5: Fabrics, textiles and apparel	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#74: Handling transfer of processing aids from/to vessels at dedicated facilities Article used by: Workers	N/A	ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles	N/A	N/A	N/A	N/A	AC 5: Fabrics, textiles and apparel	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow

								modifier
#73: Blending use of chemicals to prepare in-house formulations ready to use Article used by: Workers	N/A	ERC 2: Formulation of preparations	N/A	N/A	N/A	N/A	AC 5: Fabrics, textiles and apparel	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#39: Manufacture of rubber products (General Rubber Goods): Others Article used by: Workers	N/A	ERC 3: Formulation in materials ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles ERC 6d: Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers	N/A	N/A	N/A	N/A	AC 10: Rubber articles	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier

#38: Manufacture of rubber products (General Rubber Goods): Release Agents Article used by: workers	PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation PROC 21: Low energy manipulation of substances bound in materials and/or articles	ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles	N/A	N/A	N/A	N/A	AC 10: Rubber articles	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#37: Manufacture of rubber products (General Rubber Goods): Latex chemicals Article used by: workers	PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation PROC 21: Low energy manipulation of substances bound in materials and/or articles	ERC 3: Formulation in materials ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles ERC 6d: Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers	N/A	N/A	N/A	N/A	AC 10: Rubber articles	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#36:	PROC 14: Production	ERC 3:	N/A	N/A	N/A	N/A	AC 10:	Lubricant

Manufacture of rubber products (General Rubber Goods): Other Agents (solvents, emulsifiers, reinforcing agents)	of preparations or articles by tableting, compression, extrusion, pelletisation PROC 21: Low energy manipulation of substances bound in materials and/or articles	Formulation in materials ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles ERC 6d: Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers					Rubber articles	s and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
Article used by: workers								
#35: Manufacture of rubber products (General Rubber Goods): Processing aids	PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation PROC 21: Low energy manipulation of substances bound in materials and/or articles	ERC 3: Formulation in materials	N/A	N/A	N/A	N/A	AC 10: Rubber articles	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
Article used by: workers								
#34: Manufacture of rubber	PROC 14: Production of preparations or articles by tableting,	ERC 3: Formulation in	N/A	N/A	N/A	N/A	AC 10: Rubber articles	Lubricants and lubricant

Article used by: workers		rubbers, polymers						ation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#31: Manufacture of rubber products (Tyres): Release Agents Article used by: workers	PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation	ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles	N/A	N/A	N/A	N/A	AC 10: Rubber articles	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#30: Manufacture of rubber products (Tyres): Solvents Article used by: workers	PROC 21: Low energy manipulation of substances bound in materials and/or articles	ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles	N/A	N/A	N/A	N/A	AC 10: Rubber articles	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip

								additive; mold release, flow modifier
#29: Manufacture of rubber products (Tyres): Emulsifiers Article used by: workers	PROC 21: Low energy manipulation of substances bound in materials and/or articles	ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles	N/A	N/A	N/A	N/A	AC 10: Rubber articles	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#28: Manufacture of rubber products (Tyres): Filter Activator and Bonding Agents Article used by: workers	PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation PROC 21: Low energy manipulation of substances bound in materials and/or articles	ERC 3: Formulation in materials	N/A	N/A	N/A	N/A	AC 10: Rubber articles	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
#27: Manufacture of rubber	PROC 14: Production of preparations or articles by tableting,	ERC 3: Formulation in	N/A	N/A	N/A	N/A	AC 10: Rubber	Lubricants and lubricant

g Agents		with high or intended release (including abrasive processing)						ation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
Article used by: workers								
#24: Manufacture of rubber products (Tyres): Vulcanisation Agents	PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation PROC 21: Low energy manipulation of substances bound in materials and/or articles	ERC 6d: Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers ERC 10b: Wide dispersive outdoor use of long-life articles and materials with high or intended release (including abrasive processing)	N/A	N/A	N/A	N/A	AC 10: Rubber articles	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed slip additive; mold release, flow modifier
Article used by: workers								
#23: Manufacture of rubber products (Tyres): Mastication Agents	N/A	ERC 6d: Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers	N/A	N/A	N/A	N/A	AC 10: Rubber articles	Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Processing aid, not otherwise listed
Article used by: workers								

								listed slip additive; mold release, flow modifier
#8: Consumer use of paper Article used by: consumers	N/A	ERC 11a: Wide dispersive indoor use of long-life articles and materials with low release	N/A	N/A	N/A	N/A	AC 8: Paper articles	Lubricant s and lubricant additives Process regulators , used in vulcanisat ion or polymeris ation processes Processin g aid, not otherwise listed slip additive; mold release, flow modifier

Uses advised against : No information available

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier : SINWON CHEMICAL CO., LTD.

Street address/P.O. Box : 92, Gongdan 1-daero 28beon-gil, Siheung-si, Gyeonggi-do, Korea

Country ID/Postcode/Place : Not available

Telephone number (if possible, indicate telefax) : +82-31-432-6688

e-mail address of competent person responsible for the SDS : swc4@swchem.co.kr

National contact : Not available

1.4 Emergency Telephone

Emergency Telephone number : +82-31-432-6688

Opening hours : Not available

Other comments (e.g. language(s) of the phone service) : Not available

SECTION 2 : HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

HI-LUBE(BA,300P,500P) is not classified according to Regulation (EC) No 1272/2008 [CLP] and OSHA 29 CFR 1910.1200: Not classified

2.2 Label elements

Hazard pictograms : Not applicable

Signal word : Not applicable

Hazard statement : Not applicable

Additional precautionary statements : Not applicable

2.3 Other hazards

No information available

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixture

Description of the mixture : Not mixture

CAS No.	EC No.	REACH Registration No.	%[weight]	Name	Classification according to Regulation(EC) No 1278/2008(CLP)
110-30-5	203- 755-6	01-2119487304- 36-0008	≥ 99	N,N'- ethylenedi(stearamide)	See section 2

SECTION 4 : FIRST-AID MEASURES

4.1 Description of first aid measures

General notes

- Not available

Following inhalation

- Move to fresh air.
- If symptoms persist, call a physician.

Following skin contact

- Wash off with soap and plenty of water.

Following eye contact

- If in an eye, rinse with plenty of water.

Following ingestion

- Do not induce vomiting.
- Drink plenty of water.
- Seek medical advice.

Self-protection of the first aider

- Not available

4.2 Most important symptoms and effects, both acute and delayed

Acute effects

No acute effects are anticipated if first aid treatment is applied and is effective.

Delayed effects

No delayed effects are anticipated if first aid treatment is applied and is effective.

4.3 Indication of immediate medical attention and special treatment needed

- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect

SECTION 5 : FIRE-FIGHTING MEASURES

5.1 Extinguishing media

- Suitable extinguishing media: Foam, Dry chemical, Carbon dioxide(CO₂)
- Unsuitable extinguishing media: Water

5.2 Special hazards arising from the substance or mixture

- Due to thermal decomposition and incomplete combustion gases such as black smoke, carbon monoxide and other toxic gases, danger based on inhalation of such gases may occur.

5.3 Advice for firefighters

- Wear self contained breathing apparatus for fire fighting if necessary.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Protective equipment : Not available
Emergency procedures : Not available

For emergency responders

- Avoid breathing dust
- Fine dust dispersed in air may ignite.
- Avoid dust formation.
- Take precautionary measures against static discharges.

6.2 Environmental precautions

- Try to prevent the material from entering drains or water courses.

6.3 Methods and material for containment and cleaning up

For containment

- Not available

For cleaning up

- Sweep up and shovel into suitable containers for disposal

Other information

- Not available

6.4 Reference to other sections

- See also sections 8 and 13 of the Safety Data Sheet.

SECTION 7 : HANDLING AND STORAGE

7.1 Precautions for safe handling

Protective measures :

- Provide adequate ventilation.
- Avoid exceeding of the given occupational exposure limits.
- Take precautionary.

Measures to prevent fire : Not available

Measures to prevent aerosol and dust generation

- Avoid dust formation.

Measures to protect the environment :

- Not available

Advice on general occupational hygiene :

- Not available

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

- Keep tightly closed in a dry, cool and well-ventilated place.

Packaging materials : Not available

Requirements for storage rooms and vessels : Not available

Further information on storage conditions : Not available

7.3 Specific end use(s)

Recommendations : Not available

Industrial sector specific solutions : Not available

SECTION 8 : EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure limits

Name	Korea regulation	ACGIH regulation	Biological exposure index	OSHA regulation	NIOSH regulation	EU regulation	United Kingdom
N,N'-ethylenedi(stearamide)	Not available	Not available	Not available	Not available	Not available	Not available	4 mg/m ³ UK EH40 respirable dust 10 mg/m ³ UK EH40 Total dust

8.2 Exposure controls

8.2.1 Appropriate engineering controls :

Substance/mixture related measures to prevent exposure during identified uses: No specific measures

Structural measures to prevent exposure: No specific measures

Organisational measures to prevent exposure:

Do not breathe dust.

Technical measures to prevent exposure:

General industrial hygiene practice.

8.2.2 Individual protection measures, such as personal protective equipment :

The resistance of the protective clothing to chemicals should be ascertained with the manufacturer/supplier

Eye and face protection

Wear safety glasses.

Skin protection

Hand protection

Use protective gloves as required.

Other skin protection

Wear lightweight protective clothing.

Respiratory protection

Dust safety masks are recommended when the dust concentration is more than 10 mg/m³.

Thermal hazards

Not available

8.2.3 Environmental exposure controls

Prevent entry into waterways, sewers, basements or confined areas

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance

Description : Solid white powder to slightly yellow granules

Color : Slightly yellow

Odor : Not available

Odor threshold : Not available

pH : Not available

Melting point/freezing point : 144.35 °C (101.3kPa)

Initial boiling point and boiling range : Not available

Flash point : 302°C (open cup)

Evaporation rate : Not available

Flammability (solid, gas) : The substance has no pyrophoric properties and does not liberate flammable gases on contact with water.

Upper/lower flammability or explosive limits : 10 mg/L (Lower limit of flammability)

Vapor pressure : 0.00000023 hPa (20 °C)

Solubility (ies) : Not available

Vapor density : Not available

Relative density : 1.0075 g/cm³ (23 °C)

Partition coefficient: n-octanol/water : Not available

Auto ignition temperature : 390°C

Decomposition temperature : 260°C

Viscosity : 10cP(150°C)

Explosive properties : Not explosive

Oxidizing properties : No oxidizing properties

Molecular weight : Not available

9.2 Other information

Not available

SECTION 10 : STABILITY AND REACTIVITY

10.1 Reactivity

- Dust may form explosive mixture in air.

10.2 Chemical stability

- It is stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

- Not available

10.4 Conditions to avoid

- Direct sources of heat.

10.5 Incompatible materials

- Strong oxidizing agents

10.6 Hazardous decomposition products

- In case of fire hazardous decomposition products may be produced such as: Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), dense black smoke.

SECTION 11 : TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

(a) Acute toxicity;

Oral - Rat, LD₅₀ > 5000 mg/kg bw (OECD TG 401)
Dermal - Rabbit, LD₅₀ > 2000 mg/kg bw (OECD TG 402, GLP)
Inhalation - Rat, LC₅₀ > 6.3 mg/L air/4hr (OECD TG 403, GLP)

(b) Skin Corrosion/Irritation; - In skin irritation study with rabbits, no skin irritation was caused by 24, 48, 72 hours of exposure to this substance (OECD TG 404).

(c) Serious Eye - This substance was considered mildly irritating to the rabbit eye. Changes were fully reversible within 3 days (conjunctivae score (redness) = 0.72, chemosis score = 0, cornea score = 0.17, iris score = 0) (OECD TG 405).
Damage/ Irritation;

(d) Respiratory - Not available
sensitization;

(e) Skin Sensitization; - In skin irritation study with female mouse, no skin sensitization was caused by 3 days of exposure to this substance (OECD TG 429, GLP).

(f) Carcinogenicity; - KOREA-ISHL, IARC, NTP, OSHA, ACGIH, EU Regulation 1272/2008:
Not listed

(g) Mutagenicity; - Negative reactions were observed in vitro (Bacterial reverse mutation assay, OECD TG 471; Mammalian chromosome aberration test, OECD TG 473; Mammalian cell gene mutation assay, OECD TG 476).

(h) Reproductive - The information of effects on fertility is not available.
toxicity; - In developmental oral toxicity with rat, there were no significant adverse effects on reproductive parameters and no evidence of malformations at any doses (NOAEL (maternal, developmental toxicity) ≥ 1000 mg/kg bw/day) (OECD TG 414, GLP)

(i) Specific target organ - In acute inhalation toxicity study with rats, labored breathing and/or rales, toxicity (single dark material around nose or mouth, decreased activity, urine stain, trashing exposure); (in cage) were observed (OECD TG 403, GLP).

(j) Specific target organ - Not available
toxicity (repeat exposure);

(k) Aspiration Hazard; - Not available

SECTION 12 : ECOLOGICAL INFORMATION

12.1 Toxicity

Acute toxicity

Fish - 96hr-LC₅₀ (*Oryzias latipes*) > 0.0274 mg/L (OECD TG 203)
Invertebrates - 48hr-EC₅₀ (*Daphnia magna*) > 0.00223 mg/L (OECD TG 202)
Algae - 72hr-NOEC₅₀ (*Pseudokirchnerella subcapitata*) > 100 mg/L (growth rate, OECD TG 201)

Chronic toxicity

Fish	Not available
Invertebrates	- 21d-NOEC (<i>Daphnia magna</i>)> 0.00224mg/L (OECD TG 211)
Algae	- 72hr-NOEC (<i>Pseudokirchnerella subcapitata</i>)> 39.8mg/L (OECD TG 201)
12.2 Persistence and Degradability	Persistence : Not available Degradability : N-(2-Octadecanoylaminoethyl) octadecanamide is expected to be stable in water and hydrolysis is not expected.
12.3 Bioaccumulative potential	Bioaccumulation : - BCF is less than 500, predicted to be low bioaccumulative (BCF<6.2) (0.083 mg/L)(GLP) Biodegradation : - As not well-biodegraded, it is expected to have high accumulation potential in living organisms (15% biodegradation was observed after 28 day) (10 mg/L)(OECD TG 301 B, GLP)
12.4 Mobility in soil	- High potency of mobility to soil. (Koc = 404300000 ~ 814300000) (estimated)
12.5 Results of PBT and vPvB assessment	Not available
12.6 Other adverse effects	Not available

SECTION 13 : DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product/Packaging disposal

Observe all regulations made by administration.

Waste codes / Waste designation according to LoW(2015) : Not available

Waste treatment-relevant information

Observe all regulations made by administration.

Sewage disposal-relevant information

Observe all regulations made by administration.

Other disposal recommendations

Observe all regulations made by administration.

SECTION 14 : TRANSPORT INFORMATION

14.1 UN Number : Not applicable

14.2 UN Proper shipping name : Not applicable

14.3 Transport Hazard class : Not applicable

14.4 Packing group : Not applicable

14.5 Environmental hazards : Not applicable

14.6 Special precautions for user

in case of fire : Not applicable

in case of leakage : Not applicable

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not Available

SECTION 15 : REGULATORY INFORMATION

15.1 Safety, health and environmental regulation/legislation specific for the substance or mixture

EU Regulatory Information

EU classification :

EU CLP 2008 :

Classification : Not regulated

Hazard statement codes : Not regulated

Precautionary statement codes : Not regulated

EU SVHC list : Not regulated

EU Authorisation List : Not regulated

EU Restriction list :Not regulated

Foreign Regulatory Information

External information :

U.S.A management information (OSHA Regulation) : Not regulated

U.S.A management information (CERCLA Regulation) : Not regulated

U.S.A management information (EPCRA 302 Regulation) : Not regulated

U.S.A management information (EPCRA 304 Regulation) : Not regulated

U.S.A management information (EPCRA 313 Regulation) :Not regulated

Korea management information : Not regulated

Substance of Roterdame Protocol : Not regulated

Substance of Stockholme Protocol : Not regulated

Substance of Montreal Protocol : Not regulated

15.2 Chemical safety assessment : In accordance with REACH Article 14, a Chemical Safety Assessment has been carried out for this substance.

SECTION 16 : OTHER INFORMATION

Product safety data sheet for H-LUBE(BA,300P,500P) prepared in accordance with Regulation (EU) 2015/830 (REACH), Annex II , and OSHA 29 CFR 1910.1200

16.1 Indication of changes

Date Updated : 7 June 2016

Version : Rev. 2

16.2 Abbreviations and acronyms

ACGIH = American Conference of Government Industrial Hygienists

CLP = Classification Labelling Packaging Regulation ; Regulation (EC) No 1272/2008

CAS No. = Chemical Abstracts Service number

DMEL = Derived Minimal Effect Levels

DNEL = Derived No Effect Level

EC Number = EINECS and ELINCS Number (see also EINECS and ELINCS)

EU = European Union

IARC = International Agency for Research on Cancer

ISHL = Industrial Safety & Health Law

NIOSH = National Institute for Occupational Safety & Health

NTP = National Toxicology Program

OSHA = European Agency for Safety and Health at work

PBT = Persistent, Bioaccumulative and Toxic substance

PNEC(s) = Predicted No Effect Concentration(s)

REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 2015/830

STP = Sewage Treatment Plant

SVHC = Substances of Very High Concern

vPvB = Very Persistent and Very Bioaccumulative

UN = United Nations

MARPOL = International Convention for the Prevention of Pollution from Ships (IMO)

IBC = Intermediate Bulk Container

CERCLA = Comprehensive Environmental Response, Compensation & Liability Act (US)

EPCRA = Emergency Planning and Community Right-to-Know Act (US)

EINECS = European Inventory of Existing Commercial chemical Substances

ELINCS = European List of Notified Chemical Substances

16.3 Key literature reference and sources for data :

OECD SIDS; <http://webnet.oecd.org/hpv/ui/Search.aspx>

REACH information on registered substances; <http://apps.echa.europa.eu/registered/registered-sub.aspx>

International Uniform Chemical Information Database(IUCLID); <http://esis.jrc.ec.europa.eu/>

European Union Risk Assessment Report (RAR); <http://esis.jrc.ec.europa.eu/>

U.S. National library of Medicine(NLM) Hazardous Substances Data Bank(HSDB);

<http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB>

TOMES-LOLI®; <http://www.rightanswerknowledge.com/loginRA.asp>

ECOTOX; <http://cfpub.epa.gov/ecotox/>

National Emergency Management Agency-Korea dangerous material inventory management system;

<http://www.nema.go.kr/hazmat/main/main.jsp>

The Chemical Database -The Department of Chemistry at the University of Akron;

<http://ull.chemistry.uakron.edu/erd/>

Korea Maritime Dangerous Goods Inspection Center; <http://www.komdi.or.kr/index.html>

16.4 Classification and procedure used to derive the classification for mixtures according to Regulation(EC) 1272/2008(CLP):

Classification according to Regulation (EC) 1272/2008

Classification procedure

16.5 Relevant R-phrases and/or H-statements (number and full text) : Not available

16.6 Training advice :

- Do not handle until all safety precautions have been read and understood.

16.7 Further information :

This safety data sheet (SDS) is based on the legal provisions of the REACH Regulation and OSHA 29 CFR 1910.1200, as amended. Its contents are intended as a guide to the appropriate precautionary handling of the material. It is the responsibility of recipients of this SDS to ensure that the information contained therein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. Information and instructions provided in this SDS are based on the current state of scientific and technical knowledge at the date of issue indicated. It should not be construed as any guarantee of technical performance, suitability for particular applications, and does not establish a legally valid contractual relationship. This version of the SDS supersedes all previous versions.