

2.2. Identified uses of Magnesium (EINECS-Nr.: 231-104-6; CAS-Nr.: 7439-95-4)

Table 1. Uses by workers in industrial settings

Confidential	IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
	1	Melting, alloying, casting (MAC)	as such (substance itself) in a mixture	<p>Process category (PROC):</p> <p>PROC 2: Use in closed, continuous process with occasional controlled exposure PROC 3: Use in closed batch process (synthesis or formulation) PROC 21: Low energy manipulation of substances bound in materials and/or articles PROC 22: Potentially closed processing operations with minerals/metals at elevated temperature. Industrial setting PROC 23: Open processing and transfer operations with minerals/metals at elevated temperature PROC 24: High (mechanical) energy work-up of substances bound in materials and/or articles PROC 25: Other hot work operations with metals PROC 26: Handling of solid inorganic substances at ambient temperature</p> <p>Market sector by type of chemical product:</p> <p>PC 7: Base metals and alloys</p> <p>Environmental release category (ERC):</p> <p>ERC 1: Manufacture of substances ERC 2: Formulation of preparations ERC 3: Formulation in materials ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles ERC 5: Industrial use resulting in inclusion into or onto a matrix ERC 12a: Industrial processing of articles with abrasive techniques (low release)</p> <p>Sector of end use (SU):</p> <p>SU 14: Manufacture of basic metals, including alloys SU 15: Manufacture of fabricated metal products, except machinery and equipment SU 16: Manufacture of computer, electronic and optical products, electrical equipment SU 17: General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment</p> <p>Subsequent service life relevant for that use?: yes</p> <p>Article category related to subsequent service life (AC):</p> <p>AC 1: Vehicles AC 2: Machinery, mechanical appliances, electrical/electronic articles AC 3: Electrical batteries and accumulators AC 7: Metal articles</p>

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	2	Particulates production & handling (PP&H)	as such (substance itself) in a mixture	<p>Process category (PROC):</p> <p>PROC 1: Use in closed process, no likelihood of exposure PROC 3: Use in closed batch process (synthesis or formulation) PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities PROC 21: Low energy manipulation of substances bound in materials and/or articles PROC 24: High (mechanical) energy work-up of substances bound in materials and/or articles PROC 26: Handling of solid inorganic substances at ambient temperature</p> <p>Market sector by type of chemical product:</p> <p>PC 3: Air care products PC 7: Base metals and alloys PC 19: Intermediate</p> <p>Environmental release category (ERC):</p> <p>ERC 2: Formulation of preparations ERC 4: Industrial use of processing aids in processes and products, not becoming part of articles ERC 5: Industrial use resulting in inclusion into or onto a matrix ERC 6a: Industrial use resulting in manufacture of another substance (use of intermediates) ERC 12a: Industrial processing of articles with abrasive techniques (low release)</p> <p>Sector of end use (SU):</p> <p>SU 8: Manufacture of bulk, large scale chemicals (including petroleum products) SU 9: Manufacture of fine chemicals</p> <p>Subsequent service life relevant for that use?: no</p>

Confidential	IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
	3	Fine particulates production (FPP)	as such (substance itself) in a mixture	<p>Process category (PROC):</p> <p>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 7: Industrial spraying PROC 8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities PROC 9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing) PROC 10: Roller application or brushing PROC 13: Treatment of articles by dipping and pouring PROC 14: Production of preparations or articles by tableting, compression, extrusion, pelletisation PROC 19: Hand-mixing with intimate contact and only PPE available. PROC 21: Low energy manipulation of substances bound in materials and/or articles PROC 22: Potentially closed processing operations with minerals/metals at elevated temperature. Industrial setting PROC 23: Open processing and transfer operations with minerals/metals at elevated temperature PROC 24: High (mechanical) energy work-up of substances bound in materials and/or articles PROC 26: Handling of solid inorganic substances at ambient temperature</p> <p>Market sector by type of chemical product:</p> <p>PC 7: Base metals and alloys</p> <p>Environmental release category (ERC):</p> <p>ERC 2: Formulation of preparations ERC 3: Formulation in materials ERC 5: Industrial use resulting in inclusion into or onto a matrix ERC 8e: Wide dispersive outdoor use of reactive substances in open systems ERC 12a: Industrial processing of articles with abrasive techniques (low release)</p> <p>Sector of end use (SU):</p> <p>SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys) SU 23: Electricity, steam, gas water supply and sewage treatment</p> <p>Subsequent service life relevant for that use?: no</p>

Confidential	IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
	4	Metallurgical uses (MU)	as such (substance itself) in a mixture	<p>Process category (PROC): 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)</p> <p>Market sector by type of chemical product: PC 7: Base metals and alloys</p> <p>Environmental release category (ERC): 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</p> <p>Sector of end use (SU): SU 14: Manufacture of basic metals, including alloys</p> <p>Subsequent service life relevant for that use?: no</p>
	5	Solid forming processes (SFP) - incl. production of welding electrodes	as such (substance itself) in a mixture	<p>Process category (PROC): PROC 21: Low energy manipulation of substances bound in materials and/or articles PROC 24: High (mechanical) energy work-up of substances bound in materials and/or articles</p> <p>Market sector by type of chemical product: PC 7: Base metals and alloys</p> <p>Environmental release category (ERC): ERC 12a: Industrial processing of articles with abrasive techniques (low release)</p> <p>Sector of end use (SU): SU 15: Manufacture of fabricated metal products, except machinery and equipment</p> <p>Subsequent service life relevant for that use?: yes</p> <p>Article category related to subsequent service life (AC): AC 1: Vehicles AC 2: Machinery, mechanical appliances, electrical/electronic articles AC 3: Electrical batteries and accumulators AC 7: Metal articles</p>

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	6	Corrosion protection (CP)	as such (substance itself) in a mixture	<p>Process category (PROC): PROC 13: Treatment of articles by dipping and pouring</p> <p>Market sector by type of chemical product: PC 14: Metal surface treatment products, including galvanic and electroplating products</p> <p>Environmental release category (ERC): ERC 1: Manufacture of substances</p> <p>Sector of end use (SU): SU 15: Manufacture of fabricated metal products, except machinery and equipment</p> <p>Subsequent service life relevant for that use?: yes</p> <p>Article category related to subsequent service life (AC): AC 3: Electrical batteries and accumulators</p>

Confidential	IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
	7	Welding in industrial settings (W)	as such (substance itself) in a mixture	<p>Process category (PROC): PROC 25: Other hot work operations with metals PROC 21: Low energy manipulation of substances bound in materials and/or articles</p> <p>Market sector by type of chemical product: PC 7: Base metals and alloys PC 38: Welding and soldering products (with flux coatings or flux cores.), flux products PC 14: Metal surface treatment products, including galvanic and electroplating products</p> <p>Environmental release category (ERC): 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</p> <p>Subsequent service life relevant for that use?: yes</p> <p>Article category related to subsequent service life (AC): AC 1: Vehicles AC 2: Machinery, mechanical appliances, electrical/electronic articles AC 7: Metal articles</p>

Confidential	IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
	9	Exposure during etching of magnesium dies	as such (substance itself) in a mixture	<p>Process category (PROC):</p> <p>PROC 1: Use in closed process, no likelihood of exposure PROC 2: Use in closed, continuous process with occasional controlled exposure PROC 3: Use in closed batch process (synthesis or formulation) PROC 4: Use in batch and other process (synthesis) where opportunity for exposure arises PROC 8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities PROC 9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing) PROC 13: Treatment of articles by dipping and pouring PROC 21: Low energy manipulation of substances bound in materials and/or articles PROC 24: High (mechanical) energy work-up of substances bound in materials and/or articles</p> <p>Market sector by type of chemical product:</p> <p>PC 7: Base metals and alloys</p> <p>Environmental release category (ERC):</p> <p>ERC 12b: Industrial processing of articles with abrasive techniques (high release)</p> <p>Sector of end use (SU):</p> <p>SU 15: Manufacture of fabricated metal products, except machinery and equipment SU 17: General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment</p> <p>Subsequent service life relevant for that use?: yes</p> <p>Article category related to subsequent service life (AC):</p> <p>AC 2: Machinery, mechanical appliances, electrical/electronic articles AC 7: Metal articles</p>

Table 2. Uses by professional workers

Confidential	IU number	Identified Use (IU) name	Substance supplied to that use	Use descriptors
	10	Welding in professional settings (W)	as such (substance itself) in a mixture	<p>Process category (PROC): PROC 25: Other hot work operations with metals PROC 21: Low energy manipulation of substances bound in materials and/or articles</p> <p>Market sector by type of chemical product: PC 7: Base metals and alloys PC 38: Welding and soldering products (with flux coatings or flux cores.), flux products</p> <p>Environmental release category (ERC): 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</p> <p>Subsequent service life relevant for that use?: yes</p> <p>Article category related to subsequent service life (AC): AC 1: Vehicles AC 2: Machinery, mechanical appliances, electrical/electronic articles AC 7: Metal articles</p>

Table 3. Uses by consumers

Confidential	IU number	Identified Use (IU) name	Use descriptors
	11	Consumer use of pyrotechnical products (FW)	<p>Chemical product category (PC): PC 0: Other: pyrotechnic composition</p> <p>Environmental release category (ERC): ERC 8d: Wide dispersive outdoor use of processing aids in open systems ERC 8e: Wide dispersive outdoor use of reactive substances in open systems</p> <p>Subsequent service life relevant for that use?: yes</p> <p>Article category related to subsequent service life (AC): AC 0: Other: TARIC 3604</p>
	12	Handling of massive objects	<p>Environmental release category (ERC): ERC 10a: Wide dispersive outdoor use of long-life articles and materials with low release ERC 11a: Wide dispersive indoor use of long-life articles and materials with low release</p> <p>Subsequent service life relevant for that use?: yes</p> <p>Article category related to subsequent service life (AC): AC 1: Vehicles AC 7: Metal articles</p>