

## 2.1. Manufacture

Table 2.2. Manufacture

<b>Manufacture</b>	
M-1	<p><b>Manufacture of carbonic acid, zinc salt, basic - Wet</b></p> <p><u>Further description of manufacturing process:</u></p> <p>The manufacturing process includes:</p> <ul style="list-style-type: none"><li>• Reception of the (intermediate) zinc bearing solution and transfer into the reaction tank</li><li>• Sequential addition of reagents for purification steps if required and filtration on press filter, when needed. Ventilation is adapted.</li><li>• Addition of sodium carbonate (or sodium carbonate/ hydroxide mixture) for precipitation of the zinc compound in a closed system.</li><li>• Filtration and washing of the basic carbonate precipitate. (No emissions)</li><li>• Rotary kiln or spray drying by water evaporation (closed system).</li><li>• Discharge and packaging of produced powder. Workers have to place and adjust the bag or container under the discharge pipe and to set the process in motion. Filled bags or drums are subsequently closed and carried to the storage area. Exposure to dust can occur during packing of the powder. Exhaust hood is required</li><li>• Maintenance activities</li></ul> <p>Contributing activity/technique for the environment :</p> <ul style="list-style-type: none"><li>- <b>Manufacture of carbonic acid, zinc salt, basic - Wet (ERC1)</b></li></ul> <p>Contributing activity/technique for the workers :</p> <ul style="list-style-type: none"><li>- <b>Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions (PROC 2)</b></li><li>- <b>Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition (PROC 3)</b></li><li>- <b>Chemical production where opportunity for exposure arises (PROC 4)</b></li><li>- <b>Mixing or blending in batch processes (PROC 5)</b></li><li>- <b>Transfer of substance or mixture (charging/discharging) at dedicated facilities (PROC 8b)</b></li><li>- <b>Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC 9)</b></li></ul>

	<ul style="list-style-type: none"> <li>- <b>Tabletting, compression, extrusion, pelettisation, granulation (PROC 14)</b></li> <li>- <b>Manufacturing and processing of minerals and/or metals at substantially elevated temperature (PROC 22)</b></li> <li>- <b>Handling of solid inorganic substances at ambient temperature (PROC 26)</b></li> <li>- <b>Manual maintenance (cleaning and repair) of machinery (PROC28)</b></li> </ul> <p>registration according to REACH Article 10; total tonnage manufactured/imported &gt;=10tonnes/year per registrant</p> <p>Tonnage of substance for this use: &lt;=200 Tonnage (tonnes/year)</p> <p><i>Related assessment: use assessed in a joint CSR</i></p>
M-2	<p><b>Carbonic acid, zinc salt, basic production in the catalyst sector</b></p> <p><u>Further description of manufacturing process:</u></p> <p>Manufacture of basic zinc carbonate by precipitation from soluble zinc salts (i.e. zinc dinitrate)</p> <p>Contributing activity/technique for the environment :</p> <ul style="list-style-type: none"> <li>- <b>Direct discharge to water after on-site treatment (ERC1)</b></li> <li>- <b>Discharge via additional off-site sewage treatment plant (ERC1)</b></li> </ul> <p>Contributing activity/technique for the workers :</p> <ul style="list-style-type: none"> <li>- <b>Chemical production or refinery in closed continuous process without likelihood of exposure or processes with equivalent containment conditions (PROC 1)</b></li> <li>- <b>Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions (PROC 2)</b></li> <li>- <b>Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment conditions (PROC 3)</b></li> <li>- <b>Chemical production where opportunity for exposure arises (PROC 4)</b></li> <li>- <b>Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC 8a)</b></li> <li>- <b>Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC 8b)</b></li> <li>- <b>Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC 9)</b></li> <li>- <b>Tabletting, compression, extrusion, pelletisation, granulation (PROC 14)</b></li> <li>- <b>Manual maintenance (cleaning and repair) of machinery (PROC28)</b></li> </ul> <p>registration according to REACH Article 10; total tonnage manufactured/imported &gt;=10tonnes/year per registrant</p> <p>Tonnage of substance for this use: &lt;=1620 Tonnage (tonnes/year)</p>

	<i>Related assessment: use assessed in a joint CSR</i>
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## 2.2. Identified uses

**Table 2.3. Formulation**

	<b>Formulation</b>
F-1	<p><b>Formulation of carbonic acid, zinc salt, basic in solvent borne or water borne liquid coatings and inks</b></p> <p><u>Further description of the use:</u></p> <p>Formulation of solvent borne or water borne liquid coatings and inks, on large or small scale, where specific formulation is not known</p> <p>Contributing activity/technique for the environment :</p> <ul style="list-style-type: none"> <li>- <b>Formulation of carbonic acid, zinc salt, basic in organic solvent and water borne coatings and inks (where specific formulation not known) - non volatiles (ERC2)</b></li> </ul> <p>Contributing activity/technique for the workers :</p> <ul style="list-style-type: none"> <li>- <b>Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions (PROC 2)</b></li> <li>- <b>Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment conditions (PROC 3)</b></li> <li>- <b>Mixing or blending in batch processes (PROC 5)</b></li> <li>- <b>Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC 8b)</b></li> <li>- <b>Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC 9)</b></li> </ul> <p><b>Product Category formulated:</b> PC 9a: Coatings and paints, thinners, paint removers ; PC 14: Metal surface treatment products ; PC 15: Non-metal-surface treatment products ; PC 18: Ink and toners</p> <p><b>Technical function of the substance:</b> no specific technical function</p> <p>registration according to REACH Article 10; total tonnage manufactured/imported &gt;=10tonnes/year per registrant</p> <p>Tonnage of substance for this use: &lt;=10 Tonnage (tonnes/year)</p> <p>Substance supplied to that use:</p> <p><i>Related assessment: use assessed in a joint CSR</i></p>
F-2	<b>Formulation of carbonic acid, zinc salt, basic in cosmetics</b>

	<p><u>Further description of the use:</u></p> <p>Use of carbonic acid, zinc salt, basic as an active component in the manufacturing of cosmetics preparations by mixing or blending of solid or liquid materials</p> <p>Contributing activity/technique for the environment :</p> <ul style="list-style-type: none"> <li>- <b>Small scale formulation of carbonic acid, zinc salt, basic containing cosmetics with emissions to water (ERC2)</b></li> </ul> <p>Contributing activity/technique for the workers :</p> <ul style="list-style-type: none"> <li>- <b>Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions (PROC 2)</b></li> <li>- <b>Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment conditions (PROC 3)</b></li> <li>- <b>Chemical production where opportunity for exposure arises (PROC 4)</b></li> <li>- <b>Mixing or blending in batch processes (PROC 5)</b></li> <li>- <b>Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC 8b)</b></li> <li>- <b>Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC 9)</b></li> <li>- <b>Tabletting, compression, extrusion, pelletisation, granulation (PROC 14)</b></li> <li>- <b>Use as laboratory reagent (PROC 15)</b></li> <li>- <b>Handling of solid inorganic substances at ambient temperature (PROC 26)</b></li> </ul> <p><b>Product Category formulated:</b> PC 39: Cosmetics, personal care products</p> <p><b>Technical function of the substance:</b> no specific technical function</p> <p>registration according to REACH Article 10; total tonnage manufactured/imported &gt;=10tonnes/year per registrant</p> <p>Tonnage of substance for this use: &lt;=10 Tonnage (tonnes/year)</p> <p>Substance supplied to that use:</p> <p><i>Related assessment: use assessed in a joint CSR</i></p>
F-3	<p><b>Industrial distribution, repacking from big to smaller containers</b></p> <p><u>Further description of the use:</u></p> <p>Contributing activity/technique for the environment :</p> <ul style="list-style-type: none"> <li>- <b>No emissions to water (ERC2)</b></li> </ul> <p>Contributing activity/technique for the workers :</p> <ul style="list-style-type: none"> <li>- <b>Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions (PROC 1)</b></li> </ul>

	<ul style="list-style-type: none"> <li>- Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment conditions (PROC 3)</li> <li>- Mixing or blending in batch processes (PROC 5)</li> <li>- Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC 8b)</li> <li>- Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC 9)</li> <li>- Use as laboratory reagent (PROC 15)</li> </ul> <p><b>Product Category formulated:</b> PC 12: Fertilisers</p> <p><b>Technical function of the substance:</b> no specific technical function</p> <p>registration according to REACH Article 10; total tonnage manufactured/imported <math>\geq 10</math> tonnes/year per registrant</p> <p>Tonnage of substance for this use: <math>\leq 10</math> Tonnage (tonnes/year)</p> <p>Substance supplied to that use:</p> <p><i>Related assessment: use assessed in a joint CSR</i></p>
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**Table 2.4. Uses at industrial sites**

	Uses at industrial sites
IW-1	<p><b>Use of carbonic acid, zinc salt, basic as an intermediate in the production of catalysts</b></p> <p><u>Further description of the use:</u></p> <p>Use of basic zinc carbonate as an intermediate in the manufacture of other zinc substances (i.e. Zinc Oxide, Zinc Sulphide) in the catalyst sector.</p> <p>Contributing activity/technique for the environment :</p> <ul style="list-style-type: none"> <li>- Direct discharge to water after on-site treatment (ERC6a)</li> <li>- Discharge via additional off-site sewage treatment plant (ERC6a)</li> </ul> <p>Contributing activity/technique for the workers :</p> <ul style="list-style-type: none"> <li>- Chemical production or refinery in closed continuous process without likelihood of exposure or processes with equivalent containment conditions (PROC 1)</li> <li>- Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions (PROC 2)</li> <li>- Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment conditions (PROC 3)</li> <li>- Chemical production where opportunity for exposure arises (PROC 4)</li> </ul>

	<ul style="list-style-type: none"> <li>- Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC 8a)</li> <li>- Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC 8b)</li> <li>- Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC 9)</li> <li>- Tableting, compression, extrusion, pelletisation, granulation (PROC 14)</li> <li>- Manual maintenance (cleaning and repair) of machinery (PROC28)</li> </ul> <p><b>Product Category used:</b></p> <p><b>Sector of end use:</b> SU 8: Manufacture of bulk, large scale chemicals (including petroleum products) ; SU 9: Manufacture of fine chemicals</p> <p><b>Technical function of the substance:</b> intermediate</p> <p>use as intermediate in a registration according to REACH Article 10; total tonnage manufactured/imported <math>\geq 10</math> tonnes/year per registrant</p> <p>Tonnage of substance for this use: <math>\leq 1620</math> Tonnage for this use (tonnes/year)</p> <p>Substance supplied to that use:</p> <p>Subsequent service life relevant for that use: no</p> <p><i>Related assessment: use assessed in a joint CSR</i></p>
IW-2	<p><b>Industrial use of carbonic acid, zinc salt, basic as a catalyst</b></p> <p><u>Further description of the use:</u></p> <p>Industrial use of Zn(OH)CO<sub>3</sub> containing catalysts. Zinc Hydroxy-Carbonate is a constituent of many types of catalysts: it is present for its catalytic activity, its ability to absorb catalyst poisons (a.o.S and Cl) and as catalyst strength component.</p> <p>Contributing activity/technique for the environment :</p> <ul style="list-style-type: none"> <li>- <b>Industrial use of carbonic acid, zinc salt, basic as a catalyst (ERC6a)</b></li> </ul> <p>Contributing activity/technique for the workers :</p> <ul style="list-style-type: none"> <li>- <b>Chemical production or refinery in closed continuous process without likelihood of exposure or processes with equivalent containment conditions (PROC 1)</b></li> <li>- <b>Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions (PROC 2)</b></li> <li>- <b>Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment conditions (PROC 3)</b></li> <li>- <b>Chemical production where opportunity for exposure arises (PROC 4)</b></li> <li>- Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC 8a)</li> <li>- Transfer of substance or mixture (charging and discharging) at dedicated facilities</li> </ul>

	<p><b>(PROC 8b)</b></p> <ul style="list-style-type: none"> <li>- Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC 9)</li> <li>- Manual maintenance (cleaning and repair) of machinery (PROC28)</li> </ul> <p><b>Product Category used:</b> PC 2: Adsorbents ; PC 40: Extraction agents</p> <p><b>Sector of end use:</b> SU 8: Manufacture of bulk, large scale chemicals (including petroleum products) ; SU 9: Manufacture of fine chemicals</p> <p><b>Technical function of the substance:</b> absorbent ; catalyst ; chemical reaction regulator</p> <p>registration according to REACH Article 10; total tonnage manufactured/imported &gt;=10tonnes/year per registrant</p> <p>Tonnage of substance for this use: &lt;=100 Tonnage for this use (tonnes/year)</p> <p>Substance supplied to that use:</p> <p>Subsequent service life relevant for that use: no</p> <p><i>Related assessment: use assessed in a joint CSR</i></p>
IW-3	<p><b>Industrial use of carbonic acid, zinc salt, basic as additive in the production of polymer-matrices and plastics products</b></p> <p><u>Further description of the use:</u></p> <p>Industrial use of carbonic acid, zinc salt, basic as such or in formulations in production of polymer matrices and plastic products</p> <p>Contributing activity/technique for the environment :</p> <ul style="list-style-type: none"> <li>- Direct discharge to water after on-site treatment (ERC5)</li> <li>- Discharge via additional off-site sewage treatment plant (ERC5)</li> </ul> <p>Contributing activity/technique for the workers :</p> <ul style="list-style-type: none"> <li>- Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions (PROC 2)</li> <li>- Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment conditions (PROC 3)</li> <li>- Chemical production where opportunity for exposure arises (PROC 4)</li> <li>- Mixing or blending in batch processes (PROC 5)</li> <li>- Calendering operations (PROC 6)</li> <li>- Transfer of substance or mixture (charging/discharging) at non dedicated-facilities (PROC 8a)</li> <li>- Transfer of substance or mixture at dedicated facilities (PROC 8b)</li> <li>- Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC 9)</li> </ul>

	<ul style="list-style-type: none"> <li>- Roller application or brushing (PROC 10)</li> <li>- Treatment of articles by dipping and pouring (PROC 13)</li> <li>- Tabletting, compression, extrusion, pelletisation, granulation (PROC 14)</li> <li>- Low energy manipulation and handling of substances bound in/on materials or articles (PROC 21)</li> <li>- High (mechanical) energy work-up of substances bound in materials and/or articles (PROC 24)</li> <li>- Handling of solid inorganic substances at ambient temperature (PROC 26)</li> </ul> <p><b>Product Category used:</b> PC 32: Polymer preparations and compounds</p> <p><b>Sector of end use:</b> SU 12: Manufacture of plastics products, including compounding and conversion</p> <p><b>Technical function of the substance:</b> chemical reaction regulator ; corrosion inhibitor ; UV stabiliser</p> <p>registration according to REACH Article 10; total tonnage manufactured/imported &gt;=10tonnes/year per registrant</p> <p>Tonnage of substance for this use: &lt;=10 Tonnage for this use (tonnes/year)</p> <p>Substance supplied to that use:</p> <p>Subsequent service life relevant for that use: yes</p> <p>Link to the subsequent service life: Service life of plastic articles containing carbonic acid, zinc salt, basic</p> <p><i>Related assessment: use assessed in a joint CSR</i></p>
IW-4	<p><b>Industrial use of carbonic acid, zinc salt, basic as activator for production of rubber products</b></p> <p><u>Further description of the use:</u></p> <p>Industrial use of carbonic acid, zinc salt, basic as such or in formulations as activator for rubber vulcanization of tyres and other technical goods.</p> <p>Contributing activity/technique for the environment :</p> <ul style="list-style-type: none"> <li>- Direct discharge to water after on-site treatment (ERC6d)</li> <li>- Discharge via additional off-site sewage treatment plant (ERC6d)</li> </ul> <p>Contributing activity/technique for the workers :</p> <ul style="list-style-type: none"> <li>- Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment conditions (PROC 3)</li> <li>- Chemical production where opportunity for exposure arises (PROC 4)</li> <li>- Mixing or blending in batch processes (PROC 5)</li> <li>- Calendering operations (PROC 6)</li> <li>- Industrial spraying (PROC 7)</li> </ul>

	<ul style="list-style-type: none"> <li>- Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC 8b)</li> <li>- Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC 9)</li> <li>- Roller application or brushing (PROC 10)</li> <li>- Tabletting, compression, extrusion, pelletisation, granulation (PROC 14)</li> <li>- Low energy manipulation and handling of substances bound in/on materials or articles (PROC 21)</li> <li>- High (mechanical) energy work-up of substances bound in/on materials and/or articles (PROC 24)</li> </ul> <p><b>Product Category used:</b> PC 32: Polymer preparations and compounds</p> <p><b>Sector of end use:</b> SU 11: Manufacture of rubber products</p> <p><b>Technical function of the substance:</b> catalyst ; chemical reaction regulator</p> <p>registration according to REACH Article 10; total tonnage manufactured/imported &gt;=10tonnes/year per registrant</p> <p>Tonnage of substance for this use: &lt;=10 Tonnage for this use (tonnes/year)</p> <p>Substance supplied to that use:</p> <p>Subsequent service life relevant for that use: no</p> <p><i>Related assessment: use assessed in a joint CSR</i></p>
IW-5	<p><b>Industrial spray painting and coating of carbonic acid, zinc salt, basic -containing formulations, exhaust ventilation</b></p> <p><u>Further description of the use:</u></p> <p>Paint application on indoor industrial line with no enclosure (only LEV)</p> <p>Contributing activity/technique for the environment :</p> <ul style="list-style-type: none"> <li>- Application; Industrial; Spraying; Indoor use; Solids (ERCS5)</li> </ul> <p>Contributing activity/technique for the workers :</p> <ul style="list-style-type: none"> <li>- Chemical production where opportunity for exposure arises (PROC 4)</li> <li>- Mixing or blending in batch processes (PROC 5)</li> <li>- Industrial spraying (PROC 7)</li> <li>- Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC 8b)</li> </ul> <p><b>Product Category used:</b> PC 9a: Coatings and paints, thinners, paint removers ; PC 14: Metal surface treatment products ; PC 15: Non-metal-surface treatment products ; PC 18: Ink and toners</p> <p><b>Sector of end use:</b> SU 5: Manufacture of textiles, leather, fur ; SU 6a: Manufacture of wood and wood products ; SU 6b: Manufacture of pulp, paper and paper products ; SU 11: Manufacture of rubber products ; SU 12: Manufacture of plastics products, including compounding and conversion</p>

	<p>; SU 13: Manufacture of other non-metallic mineral products, e.g. plasters, cement ; SU 15: Manufacture of fabricated metal products, except machinery and equipment</p> <p><b>Technical function of the substance:</b> antiscaling agent ; corrosion inhibitor ; durability agent ; filler ; pigment ; waterproofing agent</p> <p>registration according to REACH Article 10; total tonnage manufactured/imported &gt;=10tonnes/year per registrant</p> <p>Tonnage of substance for this use: &lt;=10 Tonnage for this use (tonnes/year)</p> <p>Substance supplied to that use:</p> <p>Subsequent service life relevant for that use: yes</p> <p>Link to the subsequent service life: Service life of painted and coated articles containing carbonic acid, zinc salt, basic</p> <p><i>Related assessment: use assessed in a joint CSR</i></p>
IW-6	<p><b>Industrial non-spray painting and coating of carbonic acid, zinc salt, basic -containing formulations, exhaust ventilation</b></p> <p><u>Further description of the use:</u></p> <p>Paint application on indoor industrial line by brush, roller, dipping, spreading, coil, fluidised bed or curtain coating (LEV only)</p> <p>Contributing activity/technique for the environment :</p> <ul style="list-style-type: none"> <li>- <b>Application - industrial - non-spray - indoor use - solids (ERC5)</b></li> </ul> <p>Contributing activity/technique for the workers :</p> <ul style="list-style-type: none"> <li>- <b>Chemical production where opportunity for exposure arises (PROC 4)</b></li> <li>- <b>Mixing or blending in batch processes (PROC 5)</b></li> <li>- <b>Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC 8b)</b></li> <li>- <b>Roller application or brushing (PROC 10)</b></li> <li>- <b>Treatment of articles by dipping and pouring (PROC 13)</b></li> </ul> <p><b>Product Category used:</b> PC 9a: Coatings and paints, thinners, paint removers ; PC 14: Metal surface treatment products ; PC 15: Non-metal-surface treatment products ; PC 18: Ink and toners</p> <p><b>Sector of end use:</b> SU 5: Manufacture of textiles, leather, fur ; SU 6a: Manufacture of wood and wood products ; SU 6b: Manufacture of pulp, paper and paper products ; SU 11: Manufacture of rubber products ; SU 12: Manufacture of plastics products, including compounding and conversion ; SU 13: Manufacture of other non-metallic mineral products, e.g. plasters, cement ; SU 15: Manufacture of fabricated metal products, except machinery and equipment</p> <p><b>Technical function of the substance:</b> antiscaling agent ; corrosion inhibitor ; durability agent ; filler ; pigment ; waterproofing agent</p> <p>registration according to REACH Article 10; total tonnage manufactured/imported &gt;=10tonnes/year per registrant</p> <p>Tonnage of substance for this use: &lt;=10 Tonnage for this use (tonnes/year)</p>

	<p>Substance supplied to that use:</p> <p>Subsequent service life relevant for that use: yes</p> <p>Link to the subsequent service life: Service life of painted and coated articles containing carbonic acid, zinc salt, basic</p> <p><i>Related assessment: use assessed in a joint CSR</i></p>
IW-7	<p><b>Industrial use of carbonic acid, zinc salt, basic as component for production of organic and inorganic zinc compounds (intermediate use)</b></p> <p><u>Further description of the use:</u></p> <p>Industrial use of carbonic acid, zinc salt, basic in the manufacture of organic preparations or substances by mixing the starting materials in an organic-based matrix, with potentially filtering or casting and packaging and other inorganic Zinc-substances, through different process routes, with potentially drying, calcining and packaging</p> <p>Contributing activity/technique for the environment :</p> <ul style="list-style-type: none"> <li>- <b>Direct discharge to water after on-site treatment (ERC6a)</b></li> <li>- <b>Discharge via additional off-site sewage treatment plant (ERC6a)</b></li> </ul> <p>Contributing activity/technique for the workers :</p> <ul style="list-style-type: none"> <li>- <b>Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions (PROC 2)</b></li> <li>- <b>Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment conditions (PROC 3)</b></li> <li>- <b>Mixing or blending in batch processes (PROC 5)</b></li> <li>- <b>Transfer of substance or mixture (charging and discharging) at non-dedicated facilities (PROC 8a)</b></li> <li>- <b>Transfer of substance or mixture (charging/discharging) at dedicated facilities (PROC 8b)</b></li> <li>- <b>Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC 9)</b></li> <li>- <b>Treatment of articles by dipping and pouring (PROC 13)</b></li> <li>- <b>Tabletting, compression, extrusion, pelletisation, granulation (PROC 14)</b></li> <li>- <b>Use as laboratory reagent (PROC 15)</b></li> <li>- <b>Manufacturing and processing of minerals and/or metals at substantially elevated temperature (PROC 22)</b></li> <li>- <b>Handling of solid inorganic substances at ambient temperature (PROC 26)</b></li> </ul> <p><b>Product Category used:</b> PC 12: Fertilisers ; PC 0: Other:</p> <p><b>Sector of end use:</b> SU 8: Manufacture of bulk, large scale chemicals (including petroleum products) ; SU 9: Manufacture of fine chemicals ; SU 13: Manufacture of other non-metallic mineral products, e.g. plasters, cement</p>

	<p><b>Technical function of the substance:</b> intermediate</p> <p>use as intermediate in a registration according to REACH Article 10; total tonnage manufactured/imported <math>\geq 10</math> tonnes/year per registrant</p> <p>Tonnage of substance for this use: <math>\leq 10</math> Tonnage for this use (tonnes/year)</p> <p>Substance supplied to that use:</p> <p>Subsequent service life relevant for that use: no</p> <p><i>Related assessment: use assessed in a joint CSR</i></p>
IW-8	<p><b>Inclusion of carbonic acid, zinc salt, basic in respirator cartridges / filters</b></p> <p><u>Further description of the use:</u></p> <p>Contributing activity/technique for the environment :</p> <ul style="list-style-type: none"> <li>- <b>No emissions to water and air (ERC5)</b></li> </ul> <p>Contributing activity/technique for the workers :</p> <ul style="list-style-type: none"> <li>- <b>Mixing or blending in batch processes (PROC 5)</b></li> <li>- <b>Transfer of substance or mixture (charging and discharging) at dedicated facilities (PROC 8b)</b></li> <li>- <b>Transfer of substance or mixture into small containers (dedicated filling line, including weighing) (PROC 9)</b></li> </ul> <p><b>Product Category used:</b> PC 0: Other:</p> <p><b>Technical function of the substance:</b> absorbent ; catalyst ; reducing agent</p> <p>registration according to REACH Article 10; total tonnage manufactured/imported <math>\geq 10</math> tonnes/year per registrant</p> <p>Tonnage of substance for this use: <math>\leq 50</math> Tonnage for this use (tonnes/year)</p> <p>Substance supplied to that use:</p> <p>Subsequent service life relevant for that use: yes</p> <p>Link to the subsequent service life: Use of sealed respirator cartridge</p> <p><i>Related assessment: use assessed in a joint CSR</i></p>

**Table 2.5. Uses by professional workers**

	<b>Uses by professional workers</b>
PW-1	<p><b>Professional spray painting and coating of carbonic acid, zinc salt, basic-containing formulations, indoor/outdoor</b></p> <p><u>Further description of the use:</u></p>

	<p>Spray painting by professionals for general applications (e.g. decorative)</p> <p>Contributing activity/technique for the environment :</p> <ul style="list-style-type: none"> <li>- <b>Professional spray painting of bulk carbonic acid, zinc salt, basic-containing formulations, Indoor use (ERC8c)</b></li> <li>- <b>Professional spray painting of bulk carbonic acid, zinc salt, basic-containing formulations, Outdoor use (ERC8f)</b></li> </ul> <p>Contributing activity/technique for the workers :</p> <ul style="list-style-type: none"> <li>- <b>Chemical production where opportunity for exposure arises (PROC 4)</b></li> <li>- <b>Mixing or blending in batch processes (PROC 5)</b></li> <li>- <b>Transfer of substance or mixture (charging/discharging) at non dedicated-facilities (PROC 8a)</b></li> <li>- <b>Non-industrial spraying (PROC 11)</b></li> </ul> <p><b>Product Category used:</b> PC 9a: Coatings and paints, thinners, paint removers ; PC 14: Metal surface treatment products ; PC 15: Non-metal-surface treatment products ; PC 18: Ink and toners</p> <p><b>Sector of end use:</b> SU 5: Manufacture of textiles, leather, fur ; SU 6a: Manufacture of wood and wood products ; SU 6b: Manufacture of pulp, paper and paper products ; SU 11: Manufacture of rubber products ; SU 12: Manufacture of plastics products, including compounding and conversion ; SU 13: Manufacture of other non-metallic mineral products, e.g. plasters, cement ; SU 15: Manufacture of fabricated metal products, except machinery and equipment</p> <p><b>Technical function of the substance:</b> antiscaling agent ; corrosion inhibitor ; durability agent ; filler ; pigment ; waterproofing agent</p> <p>registration according to REACH Article 10; total tonnage manufactured/imported =&gt;10tonnes/year per registrant</p> <p>Tonnage of substance for this use: &lt;=10 Tonnage (tonnes/year)</p> <p>Subsequent service life relevant for that use: yes</p> <p>Link to the subsequent service life: Service life of painted and coated articles containing carbonic acid, zinc salt, basic</p> <p><i>Related assessment: use assessed in a joint CSR</i></p>
PW-2	<p><b>Professional painting and coating of carbonic acid, zinc salt, basic-containing formulations, indoor/outdoor brush/roller</b></p> <p><u>Further description of the use:</u></p> <p>Painting by professionals with brush or roller</p> <p>Contributing activity/technique for the environment :</p> <ul style="list-style-type: none"> <li>- <b>Professional painting of bulk carbonic acid, zinc salt, basic-containing formulations, indoor brush/roller (ERC8c)</b></li> <li>- <b>Professional painting of bulk carbonic acid, zinc salt, basic-containing formulations, outdoor brush/roller (ERC8f)</b></li> </ul>

	<p>Contributing activity/technique for the workers :</p> <ul style="list-style-type: none"> <li>- <b>Chemical production where opportunity for exposure arises (PROC 4)</b></li> <li>- <b>Mixing or blending in batch processes (PROC 5)</b></li> <li>- <b>Transfer of substance or mixture (charging/discharging) at non dedicated-facilities (PROC 8a)</b></li> <li>- <b>Roller application or brushing (PROC 10)</b></li> </ul> <p><b>Product Category used:</b> PC 9a: Coatings and paints, thinners, paint removers ; PC 14: Metal surface treatment products ; PC 15: Non-metal-surface treatment products ; PC 18: Ink and toners</p> <p><b>Sector of end use:</b> SU 5: Manufacture of textiles, leather, fur ; SU 6a: Manufacture of wood and wood products ; SU 6b: Manufacture of pulp, paper and paper products ; SU 11: Manufacture of rubber products ; SU 12: Manufacture of plastics products, including compounding and conversion ; SU 13: Manufacture of other non-metallic mineral products, e.g. plasters, cement ; SU 15: Manufacture of fabricated metal products, except machinery and equipment</p> <p><b>Technical function of the substance:</b> antiscaling agent ; corrosion inhibitor ; durability agent ; filler ; pigment ; waterproofing agent</p> <p>registration according to REACH Article 10; total tonnage manufactured/imported &gt;=10tonnes/year per registrant</p> <p>Tonnage of substance for this use: &lt;=10 Tonnage (tonnes/year)</p> <p>Subsequent service life relevant for that use: yes Link to the subsequent service life: Service life of painted and coated articles containing carbonic acid, zinc salt, basic</p> <p><i>Related assessment: use assessed in a joint CSR</i></p>
PW-3	<p><b>Professional use of bulk carbonic acid, zinc salt, basic-containing cosmetics</b></p> <p><u>Further description of the use:</u></p> <p>Professional use of carbonic acid, zinc salt, basic containing cosmetics preparations</p> <p>Contributing activity/technique for the environment :</p> <ul style="list-style-type: none"> <li>- <b>Professional use of bulk carbonic acid, zinc salt, basic-containing cosmetics (ERC8a)</b></li> </ul> <p>Contributing activity/technique for the workers :</p> <ul style="list-style-type: none"> <li>- <b>No assessment needed =&gt; 'specific regulatory status': use in cosmetics products covered under Regulation (EC) N° 1223/2009 (PROC 0)</b></li> </ul> <p><b>Product Category used:</b> PC 39: Cosmetics, personal care products</p> <p><b>Sector of end use:</b> SU 20: Health services ; SU 0: Other:</p> <p><b>Technical function of the substance:</b> deodoriser ; pigment ; UV blocker, skin care</p> <p>registration according to REACH Article 10; total tonnage manufactured/imported &gt;=10tonnes/year per registrant</p> <p>Regulatory status: use in cosmetics products within the scope of Directive 76/768/EEC (REACH Art. 14(5), 56(5)(a) and 67(2)).</p>

	<p>Tonnage of substance for this use: &lt;=10 Tonnage (tonnes/year)</p> <p>Subsequent service life relevant for that use: no</p> <p><i>Related assessment: use assessed in a joint CSR</i></p>
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**Table 2.6. Consumer uses**

	<b>Consumer uses</b>
C-1	<p><b>Consumer use of bulk carbonic acid, zinc salt, basic-containing cosmetics</b></p> <p><u>Further description of the use:</u></p> <p>Contributing activity/technique for the environment:</p> <ul style="list-style-type: none"> <li>- <b>Consumer use of bulk carbonic acid, zinc salt, basic-containing cosmetics (ERC8a)</b></li> </ul> <p>Contributing activity/technique for consumers:</p> <ul style="list-style-type: none"> <li>- <b>Use of cosmetics (PC 39)</b></li> </ul> <p><b>Technical function of the substance:</b> deodoriser ; pigment ; UV blocker, skin care</p> <p>registration according to REACH Article 10; total tonnage manufactured/imported &gt;=10tonnes/year per registrant</p> <p>Regulatory status: use in cosmetics products within the scope of Directive 76/768/EEC (REACH Art. 14(5), 56(5)(a) and 67(2)).</p> <p>Tonnage of substance for this use: &lt;=10 Tonnage (tonnes/year)</p> <p>Subsequent service life relevant for that use: no</p> <p><i>Related assessment: use assessed in a joint CSR</i></p>

**Table 2.7. Article service life**

	<b>Article service life</b>
SL-1	<p><b>Service life of plastic articles containing carbonic acid, zinc salt, basic</b></p> <p><u>Further description of the use:</u></p> <p>Article used by: consumers</p> <p>Substance intended to be released from article: no</p> <p><b>Article category related to subsequent service life (AC):</b></p> <p>Contributing activity/technique for the environment:</p> <ul style="list-style-type: none"> <li>- <b>Service life of plastic articles containing carbonic acid, zinc salt, basic (ERC10a ; ERC11a)</b></li> </ul> <p>Contributing activity/technique for consumers:</p>

	<p><b>- Plastic articles (AC 13)</b></p> <p>Contributing activity/technique for the workers:</p> <p><b>Technical function of the substance:</b> corrosion inhibitor ; UV stabiliser</p> <p>registration according to REACH Article 10; total tonnage manufactured/imported &gt;=10tonnes/year per registrant</p> <p>Tonnage of substance for this use: &lt;=10 Tonnage (tonnes/year)</p> <p><i>Related assessment: use assessed in a joint CSR</i></p>
SL-2	<p><b>Service life of painted and coated articles containing carbonic acid, zinc salt, basic</b></p> <p><u>Further description of the use:</u></p> <p>Article used by: consumers</p> <p>Substance intended to be released from article: no</p> <p><b>Article category related to subsequent service life (AC):</b></p> <p>Contributing activity/technique for the environment:</p> <ul style="list-style-type: none"> <li><b>- Service life of painted and coated articles containing carbonic acid, zinc salt, basic (ERC10a ; ERC11a)</b></li> </ul> <p>Contributing activity/technique for consumers:</p> <ul style="list-style-type: none"> <li><b>- Vehicles (AC 1)</b></li> <li><b>- Machinery, mechanical appliances, electrical/electronic articles (AC 2)</b></li> <li><b>- Fabrics, textiles and apparel (AC 5)</b></li> <li><b>- Leather articles (AC 6)</b></li> <li><b>- Metal articles (AC 7)</b></li> <li><b>- Paper articles (AC 8)</b></li> <li><b>- Wood articles (AC 11)</b></li> </ul> <p>Contributing activity/technique for the workers:</p> <p><b>Technical function of the substance:</b> antiscaling agent ; corrosion inhibitor ; durability agent ; filler ; pigment ; waterproofing agent</p> <p>registration according to REACH Article 10; total tonnage manufactured/imported &gt;=10tonnes/year per registrant</p> <p>Tonnage of substance for this use: &lt;=10 Tonnage (tonnes/year)</p> <p><i>Related assessment: use assessed in a joint CSR</i></p>
SL-3	<p><b>Use of sealed respirator cartridge</b></p> <p><u>Further description of the use:</u></p> <p>Article used by: consumers</p>

	<p>Substance intended to be released from article: no</p> <p><b>Article category related to subsequent service life (AC):</b></p> <p>Contributing activity/technique for the environment:</p> <p class="list-item-l1">- <b>Use of sealed respirator cartridge (ERC10a ; ERC11a)</b></p> <p>Contributing activity/technique for consumers:</p> <p class="list-item-l1">- <b>Service life of sealed respirator cartridges (AC8g)</b></p> <p>Contributing activity/technique for the workers:</p> <p><b>Technical function of the substance:</b> absorbent ; catalyst ; reducing agent</p> <p>registration according to REACH Article 10; total tonnage manufactured/imported &gt;=10tonnes/year per registrant</p> <p>Tonnage of substance for this use: &lt;=50 Tonnage (tonnes/year)</p> <p><i>Related assessment: use assessed in a joint CSR</i></p>
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