2.1. Manufacture

Table 2.2. Manufacture

<table>
<thead>
<tr>
<th>Manufacture</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>M-1</td>
<td>Manufacture of aluminium metaphosphate</td>
</tr>
</tbody>
</table>

Manufactured composition (see section 1.x):

Further description of manufacturing process:

Contributing activity/technique for the environment:
- (ERC1)

Contributing activity/technique for the workers:
- (PROC 1)
- (PROC 2)
- (PROC 3)
- (PROC 4)
- Mixing or blending in batch processes (PROC 5)
- (PROC 8a)
- (PROC 8b)
- (PROC 9)
- PROC 22
- PROC 23
- Handling of solid inorganic substances at ambient temperature (PROC 26)
- PROC 28

Tonnage of substance for that use: tonnes/year

Related assessment: use assessed in a joint CSR

2.2. Identified uses

Table 2.3. Formulation

<table>
<thead>
<tr>
<th>Formulation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>F-1</td>
<td>Formulation of mixtures</td>
</tr>
</tbody>
</table>

Related composition (see section 1.x):

Further description of the use:

Use of the substance for formulation (e.g. mixing, blending) of mixtures

Contributing activity/technique for the environment:
- (ERC2)

Contributing activity/technique for the workers:
- (PROC 1)
- (PROC 2)
- (PROC 3)
- (PROC 4)
- (PROC 5)
- (PROC 8a)
- (PROC 8b)
- (PROC 9)
- Tabletting, compression, extrusion, pelletisation, granulation (PROC 14)
- PROC 22
- PROC 23
- Handling of solid inorganic substances at ambient temperature (PROC 26)
- PROC 28

**Product Category formulated:**
PC 9a: Coatings and paints, thinners, paint removers; PC 9b: Fillers, putties, plasters, modelling clay
PC 20: Products such as ph-regulators, flocculants, precipitants, neutralisation agents; PC 21: Laboratory chemicals

**Technical function of the substance:**
- Surface modifier
- Ion exchange agent
- Binder
- Filler
- Hardener

Tonnage of substance for that use: tonnes/year
Substance supplied to that use: as such

*Related assessment: use assessed in a joint CSR*

---

**Formulation of materials**

Related composition (see section 1.x):
Further description of the use:
Use of the substance for formulation (e.g. mixing, blending) of materials
Contributing activity/technique for the environment:
- (ERC3)

Contributing activity/technique for the workers:
- (PROC 1)
- (PROC 2)
- (PROC 3)
- (PROC 4)
Chemical Safety Report

Table 2.4. Uses at industrial sites

<table>
<thead>
<tr>
<th>Uses at industrial sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>IW-1</td>
</tr>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
Product Category: PC 9a: Coatings and paints, thinners, paint removers; PC 9b: Fillers, putties, plasters, modelling clay; PC 20: Processing aids such as pH-regulators, flocculants, precipitants, neutralization agents; PC 0: Other: UCN Codes B20300, K 35900, R 30200
Sector of end use: SU 13: Manufacture of other non-metallic mineral products, e.g. plasters, cement ; SU 19: Building and construction work
Technical function of the substance: binding agents (resin or (pre)polymers in coatings and adhesives)
Tonnage of substance for that use: tonnes/year
Substance supplied to that use: as such ; in a mixture
Subsequent service life relevant for that use: yes
Link to the subsequent service life: Ceramic and refractory materials (workers at industrial sites)
Remarks:

Related assessment: use assessed in a joint CSR

IW-2

Use of aluminium metaphosphate as an intermediate in synthesis

Related composition (see section 1.x):

Further description of the use:

Use of the substance as intermediate (for chemical reactions).

Contributing activity/technique for the environment :

- (ERC6a)

Contributing activity/technique for the workers :

- (PROC 1)
<table>
<thead>
<tr>
<th>IW-3</th>
<th>Use of aluminium metaphosphate as a processing aid in synthesis</th>
</tr>
</thead>
</table>

Related composition (see section 1.x):

Further description of the use:

Contributing activity/technique for the environment:

- (ERC4)

Contributing activity/technique for the workers:

- (PROC 1)
- (PROC 2)
- (PROC 3)
- (PROC 4)
- (PROC 5)
- (PROC 8a)
- (PROC 8b)
- (PROC 9)
- (PROC 26)
- (PROC 28)

Product category used: PC 20: Processing aids such as pH-regulators, flocculants, precipitants, neutralization agents

Sector of end use: SU 4: Manufacture of food products; SU 8: Manufacture of bulk, large scale chemicals (including petroleum products); SU 9: Manufacture of fine chemicals

Technical function of the substance: pH regulating agent; processing aid
IW-4

Use of aluminium metaphosphate as a reactive processing aid in synthesis

Related composition (see section 1.x):

Further description of the use:

Contributing activity/technique for the environment:
- (ERC6b)

Contributing activity/technique for the workers:
- (PROC 1)
- (PROC 2)
- (PROC 3)
- (PROC 4)
- (PROC 5)
- (PROC 8a)
- (PROC 8b)
- (PROC 9)
- (PROC 26)

Product category used: PC 20: Processing aids such as pH-regulators, flocculants, precipitants, neutralization agents

Sector of end use: SU 4: Manufacture of food products; SU 8: Manufacture of bulk, large scale chemicals (including petroleum products); SU 9: Manufacture of fine chemicals

Technical function of the substance: pH regulating agent; processing aid

Tonnage of substance for that use: tonnes/year

Substance supplied to that use: as such; in a mixture

Subsequent service life relevant for that use: no

Link to the subsequent service life:

Related assessment: use assessed in a joint CSR
Contributing activity/technique for the environment:
- (ERC8b)
- ERC 8e

Contributing activity/technique for the workers:
- (PROC 15)

Product Category used: PC 19: Intermediate ; PC 20: Products such as pH-regulators, flocculants, precipitants, neutralisation agents ; PC 21: Laboratory chemicals

Sector of end use: SU 24: Scientific research and development

Technical function of the substance: pH regulating agent ; processing aid

Tonnage of substance for that use: tonnes/year

Subsequent service life relevant for that use: no

Link to the subsequent service life:

Related assessment: use assessed in a joint CSR

Use of the substance as a laboratory chemical (processing aid)

Related composition (see section 1.x):

Further description of the use:

Use of the substance as laboratory chemical

Contributing activity/technique for the environment:
- (ERC8b)
- ERC 8e

Contributing activity/technique for the workers:
- (PROC 15)

Product Category used: PC 20: Products such as pH-regulators, flocculants, precipitants, neutralisation agents ; PC 21: Laboratory chemicals

Sector of end use: SU 24: Scientific research and development

Technical function of the substance: pH regulating agent ; processing aid

Tonnage of substance for that use: tonnes/year

Subsequent service life relevant for that use: no

Link to the subsequent service life:

Related assessment: use assessed in a joint CSR

Professional end use as / for coating systems on ceramic materials and binding agent in ceramic and refractory materials

Related composition (see section 1.x):

Further description of the use:

Professional end use as / for
- coating systems on ceramic materials (glazes, coatings, oxidation protection etc.);
- binding agent in ceramic and refractory materials.
Contributing activity/technique for the environment:
- (ERC8c)
- (ERC8f)

Contributing activity/technique for the workers:
- (PROC 5)
- (PROC 8a)
- (PROC 8b)
- (PROC 9)
- (PROC 10)
- (PROC 11)
- (PROC 13)
- (PROC 14)
- (PROC 19)
- (PROC 21)
- (PROC 23)
- (PROC 26)

Product Category used:
- PC 9a: Coatings and paints, thinners, paint removes
- PC 9b: Fillers, putties, plasters, modelling clay
- PC 20: Products such as pH-regulators, flocculants, precipitants, neutralisation agents
- PC 0: Other: UCN-Codes B 20300, K 35900, R 30200

Sector of end use:
- SU 13: Manufacture of other non-metallic mineral products, e.g. plasters, cement
- SU 19: Building and construction work

Technical function of the substance: binding agents (resin or (pre)polymers in coatings and adhesives)

Tonnage of substance for that use: tonnes/year

Subsequent service life relevant for that use: yes

Link to the subsequent service life: Ceramic and refractory materials (workers at industrial sites)

Remarks:
Formulation also occurs during the same life cycle, please refer to identified use F-1.

Related assessment: use assessed in a joint CSR

Table 2.6. Consumer uses

<table>
<thead>
<tr>
<th>Consumer uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>C-1  Consumer end use of products and materials containing the substance including use as binding agent in ceramic and refractory materials</td>
</tr>
<tr>
<td>Related composition (see section 1.x):</td>
</tr>
<tr>
<td>Further description of the use:</td>
</tr>
</tbody>
</table>
Contributing activity/technique for the environment:
- (ERC8c)
- (ERC8f)

Contributing activity/technique for consumers:
- - Product category (PC): PC 9a
- - Product category (PC): PC 9b
- - Product category (PC): PC 20
- - Product category (PC): PC 0

Technical function of the substance: binding agents (resin or (pre)polymers in coatings and adhesives)

Tonnage of substance for that use: tonnes/year

Subsequent service life relevant for that use: yes

Link to the subsequent service life: Ceramic and refractory materials (workers at industrial sites)

Related assessment: use assessed in a joint CSR

Table 2.7. Article service life

<table>
<thead>
<tr>
<th>Article service life</th>
</tr>
</thead>
<tbody>
<tr>
<td>SL-1</td>
</tr>
<tr>
<td><strong>Ceramic and refractory materials (workers at industrial sites)</strong></td>
</tr>
<tr>
<td>Related composition (see section 1.x):</td>
</tr>
<tr>
<td>Further description of the use:</td>
</tr>
<tr>
<td>Constructional articles and building material for indoor use: wall construction material ceramic, metal, plastic and wood construction material, insulating material. Stone, plaster, cement, glass and ceramic articles.</td>
</tr>
<tr>
<td>Article used by: workers</td>
</tr>
<tr>
<td>Substance intended to be released from article:</td>
</tr>
<tr>
<td><strong>Article category related to subsequent service life (AC):</strong> AC 4: Stone, plaster, cement, glass and ceramic articles ; AC 7: Metal articles ; AC 11: Wood articles ; AC 13: Plastic articles ; AC 0: Other: Construction articles and building material</td>
</tr>
<tr>
<td>Contributing activity/technique for the environment:</td>
</tr>
<tr>
<td>- (ERC12a)</td>
</tr>
<tr>
<td>Contributing activity/technique for consumers:</td>
</tr>
<tr>
<td>- Article Category (AC): AC 4</td>
</tr>
<tr>
<td>- Article Category (AC): AC 7</td>
</tr>
<tr>
<td>- Article Category (AC): AC 11</td>
</tr>
<tr>
<td>- Article Category (AC): AC 13</td>
</tr>
<tr>
<td>- Article Category (AC): AC 01</td>
</tr>
</tbody>
</table>
| Contributing activity/technique for the workers:
Technical function of the substance: binding agents (resin or (pre)polymers in coatings and adhesives)

Tonnage of substance for that use: tonnes/year

**Related assessment**: use assessed in a joint CSR

### SL-2

<table>
<thead>
<tr>
<th><strong>Ceramic and refractory materials (professionals)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Related composition (see section 1.x):</td>
</tr>
<tr>
<td>Further description of the use:</td>
</tr>
<tr>
<td>Constructional articles and building material for indoor use: wall construction material ceramic, metal, plastic and wood construction material, insulating material.</td>
</tr>
<tr>
<td>Stone, plaster, cement, glass and ceramic articles.</td>
</tr>
<tr>
<td>Article used by: workers</td>
</tr>
<tr>
<td>Substance intended to be released from article:</td>
</tr>
<tr>
<td><strong>Article category related to subsequent service life (AC):</strong> AC 4: Stone, plaster, cement, glass and ceramic articles ; AC 7: Metal articles ; AC 11: Wood articles ; AC 13: Plastic articles ; AC 0: Other: Construction articles and building material</td>
</tr>
</tbody>
</table>

**Contributing activity/technique for the environment:**

- (ERC10a)
- (ERC11a)

**Contributing activity/technique for consumers:**

- [Article Category (AC): AC 4](#)
- [Article Category (AC): AC 7](#)
- [Article Category (AC): AC 11](#)
- [Article Category (AC): AC 13](#)
- [Article Category (AC): AC 01](#)

**Contributing activity/technique for the workers:**

- (PROC 21)

Technical function of the substance: binding agents (resin or (pre)polymers in coatings and adhesives)

Tonnage of substance for that use: tonnes/year

**Related assessment**: use assessed in a joint CSR

### SL-3

<table>
<thead>
<tr>
<th><strong>Ceramic and refractory materials (consumers)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Related composition (see section 1.x):</td>
</tr>
<tr>
<td>Further description of the use:</td>
</tr>
<tr>
<td>Constructional articles and building material for indoor use: wall construction material ceramic, metal, plastic and wood construction material, insulating material.</td>
</tr>
<tr>
<td>Stone, plaster, cement, glass and ceramic articles.</td>
</tr>
<tr>
<td><strong>Article used by:</strong> workers ; consumers</td>
</tr>
<tr>
<td>-----------------------------------------</td>
</tr>
<tr>
<td><strong>Substance intended to be released from article:</strong></td>
</tr>
<tr>
<td><strong>Article category related to subsequent service life (AC):</strong> AC 4: Stone, plaster, cement, glass and ceramic articles ; AC 7: Metal articles ; AC 11: Wood articles ; AC 13: Plastic articles ; AC 0: Other: Construction articles and building material</td>
</tr>
<tr>
<td><strong>Contributing activity/technique for the environment:</strong></td>
</tr>
<tr>
<td>- (ERC10a)</td>
</tr>
<tr>
<td>- (ERC11a)</td>
</tr>
<tr>
<td><strong>Contributing activity/technique for consumers:</strong></td>
</tr>
<tr>
<td>- <strong>Article Category (AC):</strong> AC 4</td>
</tr>
<tr>
<td>- - <strong>Article Category (AC):</strong> AC 7</td>
</tr>
<tr>
<td>- - <strong>Article Category (AC):</strong> AC 11</td>
</tr>
<tr>
<td>- - <strong>Article Category (AC):</strong> AC 13</td>
</tr>
<tr>
<td>- - <strong>Article Category (AC):</strong> AC 01</td>
</tr>
<tr>
<td><strong>Contributing activity/technique for the workers:</strong></td>
</tr>
<tr>
<td><strong>Technical function of the substance:</strong> binding agents (resin or (pre)polymers in coatings and adhesives)</td>
</tr>
<tr>
<td><strong>Tonnage of substance for that use:</strong> tonnes/year</td>
</tr>
<tr>
<td><strong>Related assessment:</strong> use assessed in a joint CSR</td>
</tr>
</tbody>
</table>