SAFETY DATA SHEET

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Version: Rev. 2

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-FLOW(MI,IL,GP)

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

Relevant identified uses:

Formulation

| Identified Use (IU) name | Process Category (PROC) | Environment al Release Category (ERC) | Substan ce supplied to that use in form of | Product Category (PC) | Sector of Use (SU) | Subseque nt service life relevant for that use | | Article Category (AC) |
|--------------------------------------|---|--|---|--|--------------------------------------|---|------------|-------------------------------|
| Polymer industry - PEST 3.7 | 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 6: Calendering operations PROC 8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities | Industrial use resulting in inclusion into or onto a matrix 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 indoor use of long-life articles and materials with low release | (substanc e itself) In a mixture | Polymer preparation s and compounds | Formulation [mixing] of preparations | | Processing | AC 13: Plastic articles |

| | preparation into | | | | | | | |
|----------|---|----------------|---------|-------------|-------------|-----|---------------|----------------|
| | small containers | | | | | | | |
| | (dedicated filling | | | | | | | |
| | line, including | | | | | | | |
| | weighing) | | | | | | | |
| | PROC 10: Roller | | | | | | | |
| | application or | | | | | | | |
| | brushing | | | | | | | |
| | PROC 12: Use of | | | | | | | |
| | blowing agents in | | | | | | | |
| | manufacture of | | | | | | | |
| | foam | | | | | | | |
| | PROC 13: | | | | | | | |
| | Treatment of | | | | | | | |
| | articles by dipping | | | | | | | |
| | and pouring | | | | | | | |
| | PROC 14: | | | | | | | |
| | Production of | | | | | | | |
| | preparations or | | | | | | | |
| | articles by | | | | | | | |
| | tabletting, | | | | | | | |
| | compression, | | | | | | | |
| | extrusion, | | | | | | | |
| | pelletisation 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 | | | | | | | |
| | articles | | | | | | | |
| Rubber | PROC 5: Mixing or | ERC 3· | as such | PC 15: | SU 11: | ves | Stabilisers | AC 2: |
| Industry | blending in batch | Formulation | | | Manufacture | | | Machinery, |
| - ETRMA | processes for | in materials | e | | of rubber | | | mechanical |
| 1.1 | formulation of | | itself) | | products | | | appliances, |
| | | Industrial use | / | products | | | | electrical/ele |
| | | of processing | | PC 24: | | | Impregnatio | ctronic |
| | | aids in | | Lubricants, | | | | articles |
| | | processes and | | greases, | | | Complexing | AC 10: |
| | PROC 7: Industrial | products, not | | release | | | agents | Rubber |
| | | becoming part | | products | | | Lubricants | articles |
| | | of articles | | PC 32: | | | and lubricant | |
| | | ERC 6d: | | Polymer | | | additives | |
| | | Industrial use | | preparation | | | Process | |
| | (charging/dischargin | | | s and | | | regulators, | |
| | | regulators for | | compounds | | | used in | |
| | vessels/large | polymerisatio | | | | | vulcanisatio | |
| | | n processes in | | | | | n or | |
| | | production of | | | | | polymerisati | |
| | | resins, | | | | | on processes | |
| | | rubbers, | | | | | Release | |
| | | polymers | | | | | Agent; Acid | |
| | small containers | | | | | | Scavenger | |
| | (dedicated filling | | | | | | | |
| | line, including | | | | | | | |
| | weighing) PROC 10: Roller | | | | | | | |
| | application or | | | | | | | |
| | brushing | | | | | | | |
| | PROC 12: Use of | | | | | | | |
| | 12. USE 01 | | l | <u> </u> | | | | |

| | blowing agents in manufacture of foam PROC 13: Treatment of articles by dipping and pouring PROC 14: Production of preparations or articles by tabletting, compression, extrusion, pelletisation PROC 21: Low energy manipulation of substances bound in materials and/or articles | | | | | | |
|--------------------------|--|---|----------------------|--|---|--|-----|
| and inks - CEPE 12-04-10 | 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 7: Industrial spraying 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 | Formulation of preparations ERC 5: Industrial use resulting in inclusion into or onto a matrix 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 ERC 10a: Wide dispersive outdoor use resulting in inclusion into or onto a matrix ERC 10a: Wide dispersive outdoor use of long-life articles and materials with | (substance e itself) | Coatings and paints, thinners, paint removes | SU 10: Formulation [mixing] of preparations and/or re- packaging (excluding alloys) | Stabilisers Processing aid, not otherwise listed Impregnatio n agents Complexing agents Lubricants and lubricant additives Process regulators, used in vulcanisatio n or polymerisati on processes Release Agent; Acid Scavenger | N/A |

| Adhesives FEICA V26 | 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 7: Industrial spraying 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 11: Non | ERC 2: Formulation of preparations ERC 5: Industrial use resulting in inclusion into or onto a matrix ERC 8c: Wide dispersive indoor use resulting in inclusion into or onto a matrix | (substanc e itself) | N/A | SU 10: Formulation [mixing] of preparations and/or re- packaging (excluding alloys) | Stabilisers Processing aid, not otherwise listed Impregnatio n agents Complexing agents Lubricants and lubricant additives Process regulators, used in vulcanisatio n or polymerisati on processes Release Agent; Acid Scavenger | N/A |
|---------------------------|---|---|---------------------------|-----|--|--|-----|
| | industrial spraying PROC 12: Use of | | | | | | |
| | | | | | | | |

| | blowing agents in | | | | | | | |
|-----------|----------------------|--------------|----------|----------|--------------|----|---------------|------|
| | manufacture of | | | | | | | |
| | foam | | | | | | | |
| | | | | | | | | |
| | PROC 13: | | | | | | | |
| | Treatment of | | | | | | | |
| | articles by dipping | | | | | | | |
| | and pouring | | | | | | | |
| | PROC 14: | | | | | | | |
| | Production of | | | | | | | |
| | preparations or | | | | | | | |
| | articles by | | | | | | | |
| | tabletting, | | | | | | | |
| | compression, | | | | | | | |
| | extrusion, | | | | | | | |
| | pelletisation | | | | | | | |
| | pericusation | | | | | | | |
| C | DDOC 1. Harris | EDC 2 | 1. | DC 20. | CII 10. | | C4 - 1- 11: | NT/A |
| Cosmetics | | ERC 2: | | | | no | Stabilisers | N/A |
| <u> </u> | | Formulation | 1` | | Formulation | | Processing | |
| COLIPA | likelihood of | of | e | personal | [mixing] of | | aid, not | |
| 15-04-10 | | preparations | itself) | care | preparations | | otherwise | |
| | PROC 2: Use in | | | products | and/or re- | | listed | |
| | closed, continuous | | | | packaging | | Impregnatio | |
| | process with | | | | (excluding | | n agents | |
| | occasional | | | | alloys) | | Complexing | |
| | controlled exposure | | | | | | agents | |
| | PROC 3: Use in | | | | | | Lubricants | |
| | closed batch process | | | | | | and lubricant | |
| | | | | | | | additives | |
| | (synthesis or | | | | | | | |
| | formulation) | | | | | | Process | |
| | PROC 5: Mixing or | | | | | | regulators, | |
| | blending in batch | | | | | | used in | |
| | processes for | | | | | | vulcanisatio | |
| | formulation of | | | | | | n or | |
| | preparations and | | | | | | polymerisati | |
| | articles | | | | | | on processes | |
| | (multistage and/or | | | | | | Release | |
| | significant contact) | | | | | | Agent; Acid | |
| | PROC 8a: Transfer | | | | | | Scavenger | |
| | of substance or | | | | | | Scavenger | |
| | preparation | | | | | | | |
| | | | | | | | | |
| | (charging/dischargin | | | | | | | |
| | g) from/to | | | | | | | |
| | vessels/large | | | | | | | |
| | containers at non- | | | | | | | |
| | dedicated facilities | | | | | | | |
| | PROC 8b: Transfer | | | | | | | |
| | of substance or | | | | | | | |
| | preparation | | | | | | | |
| | (charging/dischargin | | | | | | | |
| | g) 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 | | | | | | | |
| | | | | | | | | |
| | tabletting, | <u> </u> | <u> </u> | | | | | |

| | compression, | | | | | | | |
|----------|--|--------------|-----------|------------|--------------|----|----------------------|-------|
| | extrusion, | | | | | | | |
| | pelletisation | | | | | | | |
| | PROC 15: Use as | | | | | | | |
| | laboratory reagent | | | | | | | |
| Cleaning | | ERC 2: | as such | PC 35: | SU 10: | no | Stabilisers | N/A |
| and | | Formulation | (substanc | | Formulation | - | Processing | 1,7,2 |
| 1 | likelihood of | of | e | and | [mixing] of | | aid, not | |
| ce | | preparations | itself) | cleaning | preparations | | otherwise | |
| | PROC 2: Use in | preparations | itscii) | products | and/or re- | | listed | |
| AISE | closed, continuous | | | (including | packaging | | Impregnatio | |
| 15-10-09 | process with | | | solvent | (excluding | | n agents | |
| 13-10-09 | occasional | | | based | alloys) | | Complexing | |
| | controlled exposure | | | | alloys) | | | |
| | PROC 3: Use in | | | products) | | | agents Lubricants | |
| | | | | | | | and lubricant | |
| | closed batch process | | | | | | and fublicant | |
| | (synthesis or | | | | | | | |
| | formulation) | | | | | | Process | |
| | PROC 4: Use in | | | | | | regulators, | |
| | batch and other | | | | | | used in | |
| | process (synthesis) | | | | | | vulcanisatio | |
| | where opportunity | | | | | | n or | |
| | for exposure arises | | | | | | polymerisati | |
| | PROC 5: Mixing or | | | | | | on processes | |
| | blending in batch | | | | | | Release | |
| | processes for | | | | | | Agent; Acid | |
| | formulation of | | | | | | Scavenger | |
| | preparations and | | | | | | | |
| | articles | | | | | | | |
| | (multistage and/or | | | | | | | |
| | significant contact) PROC 8a: Transfer | | | | | | | |
| | | | | | | | | |
| | of substance or | | | | | | | |
| | preparation | | | | | | | |
| | (charging/discharging) from/to | | | | | | | |
| | vessels/large | | | | | | | |
| | containers at non- | | | | | | | |
| | dedicated facilities | | | | | | | |
| | PROC 8b: Transfer | | | | | | | |
| | of substance or | | | | | | | |
| | | | | | | | | |
| | preparation (charging/dischargin | | | | | | | |
| | g) 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 | | | | | | | |
| | tabletting, | | | | | | | |
| | compression, | | | | | | | |
| | extrusion, | | | | | | | |
| | pelletisation | | | | | | | |
| | PROC 15: Use as | | | | | | | |
| | laboratory reagent | | | | | | | |
| | | | | | | | | |
| | I. | I. | 1 | 1 | 1 | 1 | I. | I. |

| Constructi | PROC 3: Use in | ERC 2: | as such | PC 1: | SU 0: Other: | ves | Stabilisers | AC 4: Stone, |
|------------|-------------------------------------|------------------------------|---------|--------------------|--------------|-----|------------------------------|---------------|
| | closed batch process | | l | | former SU | yes | | plaster, |
| | (synthesis or | of | è | sealants | 21 | | aid, not | cement, glass |
| | formulation) | | itself) | PC 9a: | | | otherwise | and ceramic |
| | | ERC 3: | in a | Coatings | | | listed | articles |
| | blending in batch | Formulation | mixture | and paints, | | | Impregnatio | |
| | processes for formulation of | in materials ERC 4: | | thinners, paint | | | n agents Complexing | Plastic |
| I | preparations and | Industrial use | | removes | | | agents | articles |
| | articles | of processing | | PC 9b: | | | Lubricants | |
| | | aids in | | Fillers, | | | and lubricant | |
| | significant contact) | processes and | | putties, | | | additives | |
| | PROC 7: Industrial | products, not | | plasters, | | | Process | |
| | spraying | becoming part | | modelling | | | regulators, | |
| | | of articles | | clay | | | used in | |
| | of substance or | ERC 5: | | | | | vulcanisatio | |
| | preparation (charging/dischargin | Industrial use | | | | | n or | |
| | g) from/to | inclusion into | | | | | polymerisati on processes | |
| | vessels/large | or onto a | | | | | Release | |
| | containers at | matrix | | | | | Agent; Acid | |
| 1 | | ERC 8a: Wide | | | | | Scavenger | |
| | PROC 9: Transfer | dispersive | | | | | | |
| | of substance or | indoor use of | | | | | | |
| | preparation into | processing | | | | | | |
| | small containers | aids in open | | | | | | |
| | (dedicated filling | systems ERC 8c: Wide | | | | | | |
| | line, including weighing) | dispersive | | | | | | |
| | PROC 10: Roller | indoor use | | | | | | |
| | application or | resulting in | | | | | | |
| | brushing | inclusion into | | | | | | |
| | PROC 11: Non | or onto a | | | | | | |
| | industrial spraying | matrix | | | | | | |
| | PROC 13: | ERC 8d: | | | | | | |
| | Treatment of | Wide | | | | | | |
| | articles by dipping and pouring | dispersive outdoor use of | | | | | | |
| | PROC 14: | processing | | | | | | |
| | Production of | aids in open | | | | | | |
| | preparations or | systems | | | | | | |
| | articles by | ERC 8f: Wide | | | | | | |
| | tabletting, | dispersive | | | | | | |
| | compression, | outdoor use | | | | | | |
| | extrusion, pelletisation | resulting in inclusion into | | | | | | |
| | penetisation | or onto a | | | | | | |
| | | matrix | | | | | | |
| | | 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 | | | | | | |
| | | 15 W TOTOGSC | | | | | | |
| | l | I. | I | I | l . | | l . | <u> </u> |

| Textile | PROC 5: Mixing or | | | PC 1: | | no | Stabilisers | N/A |
|-----------|---------------------------------------|-----------------------------|-----------|---|--------------|----|------------------------------|-----|
| Chemicals | | Formulation | (substanc | | Manufacture | | Processing | |
| - | processes for | of | e | sealants | of textiles, | | aid, not | |
| | | | itself) | | leather, fur | | otherwise | |
| | p - p | ERC 3: | in a | Products | | | listed | |
| 04 | articles | | mixture | such as ph- | | | Impregnatio | |
| | | in materials | | regulators, | | | n agents | |
| | | ERC 4: | | flocculants, | | | Complexing | |
| | | Industrial use | | precipitants | | | agents | |
| | | of processing | | , | | | Lubricants | |
| | - F | aids in | | neutralisati | | | and lubricant | |
| | | processes and | | on agents | | | additives | |
| | | products, not | | PC 24: | | | Process | |
| | | becoming part | | Lubricants, | | | regulators, used in | |
| | (charging/dischargin | ERC 5: | | greases, release | | | vulcanisatio | |
| | (3) | Industrial use | | products | | | n or | |
| | _ | | | PC 32: | | | - | |
| | | resulting in inclusion into | | Polymer | | | polymerisati on processes | |
| | | or onto a | | preparation | | | Release | |
| | of substance or | matrix | | s and | | | Agent; Acid | |
| | | ERC 6b: | | compounds | | | Scavenger | |
| | charging/dischargin | | | PC 34: | | | Scavenger | |
| | | of reactive | | Textile | | | | |
| | | processing | | dves, | | | | |
| | _ | aids | | finishing | | | | |
| | | ERC 6d: | | and | | | | |
| | PROC 9: Transfer | Industrial use | | impregnatin | | | | |
| | | of process | | g products; | | | | |
| | | regulators for | | including | | | | |
| | | polymerisatio | | bleaches | | | | |
| | | n processes in | | and other | | | | |
| | | production of | | processing | | | | |
| | | resins, | | aids | | | | |
| | | rubbers, | | | | | | |
| | Treatment of | polymers | | | | | | |
| | articles by dipping | ERC 10a: | | | | | | |
| | and pouring | Wide | | | | | | |
| | | dispersive | | | | | | |
| | | outdoor use of | | | | | | |
| | | long-life | | | | | | |
| | , | articles and | | | | | | |
| | | materials with | | | | | | |
| | compression, | low release | | | | | | |
| | · · · · · · · · · · · · · · · · · · · | ERC 10b: | | | | | | |
| | pelletisation | Wide | | | | | | |
| | | dispersive | ļ | | | | | |
| | | outdoor use of | | | | | | |
| | | long-life articles and | | | | | | |
| | | materials with | | | | | | |
| | L | high or | | | | | | |
| | energy manipulation | | | | | | | |
| | of substances bound | | | | | | | |
| | | (including | | | | | | |
| | | abrasive | | | | | | |
| | | processing) | | | | | | |
| | | ERC 11a: | | | | | | |
| | | Wide | | | | | | |
| | | dispersive | | | | | | |
| | | indoor use of | | | | | | |
| | | long-life | | | | | | |
| | | articles and | | | | | | |
| | | materials with | | | | | | |
| | | low release | | | | | | |
| | | ERC 11b: | | | | | | |
| | | | | | | | | |

| | | Wide | | | | | | |
|----------|---|--------------------------|-----------|--------------------|----------------------------|-----|----------------------|---------------|
| | | dispersive | | | | | | |
| | | indoor use of | | | | | | |
| | | long-life | | | | | | |
| | | articles and | | | | | | |
| | | materials with | | | | | | |
| | | high or | | | | | | |
| | | intended | | | | | | |
| | | release | | | | | | |
| | | (including | | | | | | |
| | | abrasive | | | | | | |
| | | processing) | | | | | | |
| Pens, | PROC 4: Use in | ERC 2: | as such | PC 9b: | SU 7: | ves | Stabilisers | AC 02: Other |
| pencils, | batch and other | Formulation | (substanc | | Printing and | yes | Processing | (intended to |
| markers, | process (synthesis) | of | e | putties, | reproduction | | aid, not | be released): |
| , | where opportunity | preparations | itself) | plasters, | of recorded | | otherwise | TARIC 9608 |
| clay | for exposure arises | ERC 3: | in a | | media | | listed | (pens), |
| Clay | | Formulation | mixture | clay | SU 10: | | | TARIC 9609 |
| | blending in batch | in materials | IIIIXtuic | PC 14: | Formulation | | n agents | |
| | processes for | ERC 8a: Wide | | Metal | [mixing] of | | Complexing | (pencils) AC |
| | formulation of | | 1 | surface | | | | articles |
| | preparations and | dispersive indoor use of | | treatment | preparations and/or re- | | 1.0. | AC 13: |
| | | | | | | | and lubricants | |
| | articles | processing | | products, | packaging | | | |
| | (multistage and/or significant contact) | aids in open | | including galvanic | (excluding | | additives Process | articles |
| | | systems | | <u> </u> | alloys) | | | |
| | PROC 8b: Transfer | ERC 8c: Wide | | and | | | regulators, | |
| | of substance or | dispersive | | electroplati | | | used in | |
| | preparation | indoor use | | ng products | | | vulcanisatio | |
| | (charging/dischargin | | | PC 18: Ink | | | n or | |
| | g) from/to | inclusion into | | and toners | | | polymerisati | |
| | vessels/large | or onto a | | PC 0: | | | on processes | |
| | containers at | matrix | | Other: | | | Release | |
| | dedicated facilities | ERC 8d: | | artists | | | Agent; Acid | |
| | PROC 9: Transfer | Wide | | supply and | | | Scavenger | |
| | of substance or | dispersive | | hobby | | | | |
| | preparation into | outdoor use of | | preparation | | | | |
| | small containers | processing | | S | | | | |
| | (dedicated filling | aids in open | | | | | | |
| | line, including | systems | | | | | | |
| | weighing) | ERC 8f: Wide | | | | | | |
| | PROC 14: | dispersive | | | | | | |
| | Production of | outdoor use | | | | | | |
| | preparations or | resulting in | | | | | | |
| | articles by | inclusion into | | | | | | |
| | tabletting, | or onto a | | | | | | |
| | compression, | matrix | | | | | | |
| | extrusion, | ERC 11a: | | | | | | |
| | pelletisation | Wide | | | | | | |
| | | dispersive | | | | | | |
| | | indoor use of | | | | | | |
| | | long-life | | | | | | |
| | | articles and | | | | | | |
| | | materials with | | | | | | |
| | | low release | | | | | | |
| | | ERC 11b: | | | | | | |
| | | Wide | | | | | | |
| | | dispersive | | | | | | |
| | | indoor use of | | | | | | |
| | | long-life | | | | | | |
| | | articles and | | | | | | |
| | | materials with | | | | | | |
| | | high or | | | | | | |
| | | intended | | | | | | |
| | | release | | | | | | |
| | | (including | | | | | | |
| | 1 | | | | | | | |

| abrasive | | | |
|-------------|--|--|--|
| processing) | | | |
| | | | |

Uses by workers in industrial settings

| Uses by workers in industrial settings | | | | | | | | | |
|--|---------------------------------|-----------------------------|-----------|-------------|---------------------|------------|-------------------------|-----------|--|
| | | | Substan | | | Subseque | | | |
| T.1 .: C 1 | | Environment | ce | D 1 (| | nt service | Technical | A .: 1 | |
| Identified | Process Category | al Release | supplied | Product | Sector of | life | function of | Article | |
| Use (IU) | (PROC) | Category | to that | Category | Use (SU) | relevant | the | Category | |
| name | (11100) | (ERC) | use in | (PC) | | for that | substance | (AC) | |
| | | (LICC) | form of | | | use | Substance | | |
| Polymer | PROC 4: Use in | ERC 3: | | PC 32: | SU 10: | yes | Stabilisers | AC 13: | |
| | | Formulation | (substanc | | Formulatio | yes | Processing | Plastic | |
| | | in materials | e | preparation | | | aid, not | articles | |
| 3.7 | | | itself) | s and | of | | otherwise | ur troics | |
| | | | In a | compounds | preparation | | listed | | |
| | | resulting in | mixture | F | s and/or re- | | Impregnatio | | |
| | | inclusion into | | | packaging | | n agents | | |
| | processes for | or onto a | | | (excluding | | Complexing | | |
| | | matrix | | | alloys) | | agents | | |
| | , , , | ERC 10a: | | | SU 12: | | Lubricants | | |
| | | Wide | | | Manufactur | | and lubricant | | |
| | | dispersive | | | e of plastics | | additives | | |
| | | outdoor use of | | | products, | | Process | | |
| | | long-life | | | including | | regulators, | | |
| | | articles and materials with | | | compoundi ng and | | used in vulcanisatio | | |
| | - F | low release | | | conversion | | n or | | |
| 1 | | ERC 11a: | | | Conversion | | polymerisati | | |
| | | Wide | | | | | on processes | | |
| | (charging/dischargin | | | | | | Release | | |
| | , , , , | indoor use of | | | | | Agent; Acid | | |
| | | long-life | | | | | Scavenger | | |
| 1 | | articles and | | | | | | | |
| | | materials with | | | | | | | |
| | | low release | | | | | | | |
| | of substance or | | | | | | | | |
| | preparation | | | | | | | | |
| | (charging/dischargin g) from/to | | | | | | | | |
| | vessels/large | | | | | | | | |
| | containers at | | | | | | | | |
| | dedicated facilities | | | | | | | | |
| 1 | PROC 9: Transfer of | | | | | | | | |
| | substance or | | | | | | | | |
| | preparation into | | | | | | | | |
| | small containers | | | | | | | | |
| | (dedicated filling | | | | | | | | |
| | line, including | | | | | | | | |
| | weighing) | | | | | | | | |
| | PROC 10: Roller application or | | | | | | | | |
| | brushing | | | | | | | | |
| | PROC 12: Use of | | | | | | | | |
| | blowing agents in | | | | | | | | |
| | manufacture of foam | | | | | | | | |
| | PROC 13: Treatment | | | | | | | | |
| | of articles by dipping | | | | | | | | |
| | and pouring | | | | | | | | |
| | PROC 14: | | | | | | | | |
| | Production of | | | | | | | | |
| | preparations or | | | | | | | | |
| | articles by tabletting, | | | | | | | | |

| compression, extrusion, pelletisation 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 24: High (mechanical) energy work-up of substances bound in materials and/or articles of properations and articles of properations and articles of properations and articles of properation in the products in the products in agents and by products of properation in agents and by products of properation products of significant contact) products of properation products of properation in agents and by products of properation products of properation in agents and by products of properation products of properation in agents and by products of properation products of properation in agents and by products of properation processes in agents in agents and by production of properation | | | | | | | | | |
|---|---------------------|---|---|---------------------------|---|---------------------------|-----|--|--|
| PROC 21: Low energy manipulation of substances bound in materials and/or articles Coatings PROC 1: Use in closed process, no Formulation (substance Coatings Formulatio) PROC 1: Use in closed process, no Formulation (substance Coatings Formulatio) | Industry - ETRMA | extrusion, pelletisation 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 5: Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact) PROC 7: Industrial spraying PROC 8b: Transfer of substance or preparation (charging/dischargin g) 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 12: Use of blowing agents in manufacture of foam PROC 13: Treatment of articles by dipping and pouring PROC 14: Production of preparations or articles by tabletting, compression, extrusion, | 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 | (substanc e itself) | Non-metal- surface treatment products PC 24: Lubricants, greases, release products PC 32: Polymer preparation s and | Manufactur e of rubber | yes | Processing aid, not otherwise listed Impregnatio n agents Complexing agents Lubricants and lubricant additives Process regulators, used in vulcanisatio n or polymerisati on processes Release Agent; Acid | Machinery, mechanical appliances, electrical/ele ctronic articles AC 10: Rubber articles |
| pelletisation PROC 21: Low energy manipulation of substances bound in materials and/or articles Coatings PROC 1: Use in ERC 2: as such closed process, no Formulation (substanc Coatings Formulatio) PC 9a: SU 10: no Stabilisers Processing | | Production of preparations or articles by tabletting, compression, | | | | | | | |
| of substances bound in materials and/or articles Coatings PROC 1: Use in ERC 2: as such PC 9a: SU 10: no Stabilisers N/A closed process, no Formulation (substanc Coatings Formulatio Processing | | pelletisation PROC 21: Low | | | | | | | |
| and closed process, no Formulation (substanc Coatings Formulatio Processing | | of substances bound in materials and/or | | | | | | | |
| and closed process, no Formulation (substanc Coatings Formulatio Processing | Contings | DDOC 1. Hag in | EDC 2: | ac cuah | DC Oo: | CII 10. | no | Stabiliagra | NI/A |
| | | | | | | | 110 | | 11 1/ 1/1 |
| HING - HINCHHOOD OF 101 IC IAND DAINES. HETHINITIES I MID HOI I | | , A . | | 1. | | | | | |
| - | IIIKS - | iikeiiiiood oi | O1 | C | and paints, | µı [ııııxıng] | | ан, поі | |

| CEPE | | | itself) | , | of | | otherwise | |
|------------|------------------------|---|--------------|----------|------------------|-----|---------------|----------|
| 12-04-10 | | ERC 5: | | | preparation | | listed | |
| | closed, continuous | Industrial use | | removes | s and/or re- | | Impregnatio | |
| | process with | resulting in | | | packaging | | n agents | |
| | occasional controlled | inclusion into | | | (excluding | | Complexing | |
| | exposure | or onto a | | | alloys) | | agents | |
| | | matrix | | | | | Lubricants | |
| | closed batch process | ERC 8c: Wide | | | | | and lubricant | |
| | (synthesis or | dispersive | | | | | additives | |
| | formulation) | indoor use | | | | | Process | |
| | PROC 4: Use in | resulting in | | | | | regulators, | |
| | batch and other | inclusion into | | | | | used in | |
| | process (synthesis) | or onto a | | | | | vulcanisatio | |
| | where opportunity | matrix | | | | | n or | |
| | | ERC 8f: Wide | | | | | polymerisati | |
| | | dispersive | | | | | on processes | |
| | | outdoor use | | | | | Release | |
| | | resulting in | | | | | Agent; Acid | |
| | formulation of | inclusion into | | | | | Scavenger | |
| | preparations and | or onto a | | | | | | |
| | r .* . | matrix | | | | | | |
| | (multistage and/or | ERC 10a: | | | | | | |
| | | Wide | | | | | | |
| | | dispersive | | | | | | |
| | spraying | outdoor use of | | | | | | |
| | PROC 8b: Transfer | long-life | | | | | | |
| | | articles and | | | | | | |
| | preparation | materials with | | | | | | |
| | (charging/dischargin | low release | | | | | | |
| | | ERC 11a: | | | | | | |
| | | Wide | | | | | | |
| | | dispersive | | | | | | |
| | | indoor use of | | | | | | |
| | PROC 9: Transfer of | | | | | | | |
| | | articles and | | | | | | |
| | | materials with | | | | | | |
| | ^ ^ | low release | | | | | | |
| | (dedicated filling | 101111111111111111111111111111111111111 | | | | | | |
| | line, including | | | | | | | |
| | weighing) | | | | | | | |
| | PROC 10: Roller | | | | | | | |
| | application or | | | | | | | |
| | brushing | | | | | | | |
| | 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 | | | | | | | |
| | PROC 25: Other hot | | | | | | | |
| | work operations with | | | | | | | |
| | metals | | | | | | | |
| Adhesives | | ERC 2: | as such | N/A | SU 10: | no | Stabilisers | N/A |
| Aunesives | | | (substanc | | Formulatio | 110 | Processing | 1 1/ 1/1 |
| - FEICA | · ' | of | (SubstallC | | n [mixing] | | aid, not | |
| V26 | occasional controlled | | e itself) | | n [mixing] of | | otherwise | |
| V 20 | | ERC 5: | 16511) | 1 | preparation | | listed | |
| | Сирозин | LIC J. | <u> </u> | <u> </u> | preparation | l | pisicu | |

| | PROC 3: Use in | Industrial use | | | s and/or re- | | Impregnatio | |
|------------|-------------------------|----------------|-----------|-------------|--------------|-----|---------------|---------------|
| | closed batch process | resulting in | | | packaging | | n agents | |
| | (synthesis or | inclusion into | | | (excluding | | Complexing | |
| | formulation) | or onto a | | | alloys) | | agents | |
| | PROC 4: Use in | matrix | | | | | Lubricants | |
| | | ERC 8c: Wide | | | | | and lubricant | |
| | | dispersive | | | | | additives | 1 |
| | | indoor use | | | | | Process | |
| | | | | | | | | |
| | | resulting in | | | | | regulators, | |
| | 0 | inclusion into | | | | | used in | |
| | blending in batch | or onto a | | | | | vulcanisatio | |
| | processes for | matrix | | | | | n or | |
| | formulation of | | | | | | polymerisati | |
| | preparations and | | | | | | on processes | |
| | articles | | | | | | Release | |
| | (multistage and/or | | | | | | Agent; Acid | |
| | significant contact) | | | | | | Scavenger | |
| | PROC 7: Industrial | | | | | | | |
| | spraying | | | | | | | |
| | PROC 8b: Transfer | | | | | | | |
| | of substance or | | | | | | | |
| | preparation | | | | | | | |
| | (charging/dischargin | | | | | | | |
| | g) 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 11: Non | | | | | | | |
| | industrial spraying | | | | | | | |
| | PROC 12: Use of | | | | | | | |
| | blowing agents in | | | | | | | |
| | manufacture of foam | | | | | | | |
| | PROC 13: Treatment | | | | | | | |
| | of articles by dipping | | | | | | | |
| | and pouring | | | | | | | |
| | PROC 14: | | | | | | | |
| | Production of | | | | | | | |
| | preparations or | | | | | | | |
| | articles by tabletting, | | | | | | | |
| | compression, | | | | | | | |
| | | | | | | | | |
| | extrusion, | | | | | | | |
| | pelletisation | | | | | | | |
| _ | | | | | | | | |
| Constructi | | ERC 2: | as such | PC 1: | SU 0: | yes | Stabilisers | AC 4: Stone, |
| on | closed batch process | Formulation | (substanc | | Other: | | Processing | plaster, |
| | (synthesis or | of | e | 1 | former SU | | aid, not | cement, glass |
| - Dt. | | | itself) | PC 9a: | 21 | | otherwise | and ceramic |
| Bauchemie | | ERC 3: | in a | Coatings | | | listed | articles |
| | blending in batch | Formulation | mixture | and paints, | | | Impregnatio | |
| March | processes for | in materials | | thinners, | | | n agents | Plastic |
| 2010 | formulation of | ERC 4: | | paint | | | Complexing | |
| " | preparations and | Industrial use | | removes | | | agents | |
| | | of processing | | PC 9b: | | | Lubricants | |
| | | aids in | | Fillers, | | | and lubricant | |
| | | processes and | | putties, | | | additives | 1 |
| | piginineant contact) | processes and | <u> </u> | puines, | <u> </u> | | additi ves | |

| | | products, not | | plasters, | | | Process | |
|-----------|---------------------------------------|----------------|----------|--------------|--------------|-----|---------------|--------|
| | | becoming part | | modelling | | | regulators, | |
| | PROC 8b: Transfer | of articles | | clay | | | used in | |
| | of substance or | ERC 5: | | | | | vulcanisatio | |
| | preparation | Industrial use | | | | | n or | |
| | (charging/dischargin | | | | | | polymerisati | |
| | | inclusion into | | | | | on processes | |
| | I | or onto a | | | | | Release | |
| | | matrix | | | | | Agent; Acid | |
| | | ERC 8a: Wide | | | | | | |
| | | | | | | | Scavenger | |
| | PROC 9: Transfer of | | | | | | | |
| | | indoor use of | | | | | | |
| | | processing | | | | | | |
| | | aids in open | | | | | | |
| | | systems | | | | | | |
| | line, including | ERC 8c: Wide | | | | | | |
| | | dispersive | | | | | | |
| | PROC 10: Roller | indoor use | | | | | | |
| | application or | resulting in | | | | | | |
| | | inclusion into | | | | | | |
| | _ | or onto a | | | | | | |
| | | matrix | | | | | | |
| | PROC 13: Treatment | | | | | | | |
| | of articles by dipping | | | | | | | |
| | | dispersive | | | | | | |
| | | outdoor use of | | | | | | |
| | | | | | | | | |
| | | processing | | | | | | |
| | | aids in open | | | | | | |
| | articles by tabletting, | | | | | | | |
| | | ERC 8f: Wide | | | | | | |
| | extrusion, | dispersive | | | | | | |
| | pelletisation | outdoor use | | | | | | |
| | | resulting in | | | | | | |
| | | inclusion into | | | | | | |
| | | or onto a | | | | | | |
| | | matrix | | | | | | |
| | | 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 | | | | | | |
| | | | | | | | | |
| Textile | PROC 5: Mixing or | ERC 2: | as such | PC 1: | SU 5: | no | Stabilisers | N/A |
| | | | | | Manufactur | 110 | Processing | 1 1/ 🔼 |
| Chemicais | | | substanc | | | | | |
| TECETA | ļ. | of | :40 a10 | | e of | | aid, not | |
| | | | itself) | | textiles, | | otherwise | |
| 2009-11- | | ERC 3: | in a | Products | leather, fur | | listed | |
| 04 | | | mixture | such as ph- | | | Impregnatio | |
| | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | in materials | | regulators, | | | n agents | |
| | | ERC 4: | | flocculants, | | | Complexing | |
| | | Industrial use | | precipitants | | | agents | |
| | Calendering | of processing | | , | | | Lubricants | |
| | | aids in | | neutralisati | | | and lubricant | |
| | | processes and | | on agents | | | additives | |
| | | μ | | | | | | |

| | of substance or | products, not | PC 24: | Process |
|---|-------------------------|----------------|-------------|--------------|
| | | becoming part | Lubricants, | regulators, |
| | (charging/dischargin | of articles | greases, | used in |
| | | ERC 5: | release | vulcanisatio |
| | vessels/large | Industrial use | products | n or |
| | | resulting in | PC 32: | polymerisati |
| | | inclusion into | Polymer | on processes |
| | | | | |
| | PROC 8b: Transfer | or onto a | preparation | Release |
| | | matrix | s and | Agent; Acid |
| | | ERC 6b: | compounds | Scavenger |
| | (charging/dischargin | Industrial use | PC 34: | |
| | g) from/to | of reactive | Textile | |
| | vessels/large | processing | dyes, | |
| | | aids | finishing | |
| | | ERC 6d: | and | |
| | PROC 9: Transfer of | | impregnatin | |
| | | | | |
| | | of process | g products; | |
| | | regulators for | including | |
| | small containers | polymerisatio | bleaches | |
| | (dedicated filling | n processes in | and other | |
| | line, including | production of | processing | |
| | weighing) | resins, | aids | |
| | PROC 13: Treatment | rubbers, | | |
| | of articles by dipping | | | |
| | | ERC 10a: | | |
| | PROC 14: | Wide | | |
| | | dispersive | | |
| | | | | |
| | | outdoor use of | | |
| | articles by tabletting, | | | |
| | compression, | articles and | | |
| | extrusion, | materials with | | |
| | pelletisation | low release | | |
| | PROC 17: | ERC 10b: | | |
| | | Wide | | |
| | | dispersive | | |
| | | outdoor use of | | |
| | | | | |
| | | long-life | | |
| | | articles and | | |
| | energy manipulation | | | |
| | of substances bound | high or | | |
| | in materials and/or | intended | | |
| | articles | release | | |
| | | (including | | |
| | | abrasive | | |
| | | processing) | | |
| | | ERC 11a: | | |
| | | Wide Wide | | |
| | | | | |
| | | dispersive | | |
| | | indoor use of | | |
| | | long-life | | |
| | | articles and | | |
| | | materials with | | |
| | | low release | | |
| | | ERC 11b: | | |
| | | Wide | | |
| | | dispersive | | |
| | | indoor use of | | |
| | | | | |
| | | long-life | | |
| | | articles and | | |
| | | materials with | | |
| | | high or | | |
| | | intended | | |
| | | release | | |
| | | (including | | |
| | | abrasive | | |
| | | processing) | | |
| I | | processing) | | |

| Pulp, paper | PROC 5: Mixing or | ERC 5: | as such | PC 26: | SU 6b: | ves | Stabilisers | AC 8: Paper |
|-------------|-------------------------|----------------|-----------|--------------|--------------|-----|-------------------------|---------------|
| and | blending in batch | | l | | Manufactur | | | articles |
| board | processes for | resulting in | e | | e of pulp, | | aid, not | |
| industry | formulation of | inclusion into | | | paper and | | otherwise | |
| industry | preparations and | or onto a | in a | | paper | | listed | |
| | articles | matrix | | impregnatio | | | Impregnatio | |
| | | ERC 11a: | | n products: | products | | n agents | |
| | significant contact) | Wide | | including | | | Complexing | |
| | | dispersive | | bleaches | | | agents | |
| | | indoor use of | | and other | | | Lubricants | |
| | | long-life | | processing | | | and lubricant | |
| | | articles and | | aids | | | additives | |
| | | materials with | | aids | | | Process | |
| | | low release | | | | | regulators, | |
| | | low release | | | | | used in | |
| | | | | | | | vulcanisatio | |
| | | | | | | | n or | |
| | | | | | | | _ | |
| | | | | | | | polymerisati | |
| | | | | | | | on processes Release | |
| | | | | | | | | |
| | | | | | | | Agent; Acid | |
| D | DDOG 4 II : | EDC 2 | | DC 01 | CI I 7 | | Scavenger | 10000 |
| Pens, | PROC 4: Use in | ERC 2: | l | | 1 | yes | Stabilisers | AC 02: Other |
| pencils, | batch and other | Formulation | (substanc | | Printing | | | (intended to |
| markers, | r (-) | of | e | I | and | | 1 / | be released): |
| modelling | | | itself) | | reproductio | | otherwise | TARIC 9608 |
| clay | for exposure arises | ERC 3: | in a | | n of | | | (pens), |
| | | Formulation | mixture | 5 | recorded | | | TARIC 9609 |
| | blending in batch | in materials | | | media | | | (pencils) AC |
| | processes for | ERC 8a: Wide | | | SU 10: | | Complexing | |
| | | dispersive | | | Formulatio | | 1.0. | articles |
| | preparations and | indoor use of | | | n [mixing] | | | AC 13: |
| | | processing | | . | of | | and lubricant | |
| | | aids in open | | | preparation | | additives | articles |
| | | systems | | 0 | s and/or re- | | Process | |
| | | ERC 8c: Wide | | | packaging | | regulators, | |
| | | dispersive | | electroplati | | | used in | |
| | preparation | indoor use | | ng products | alloys) | | vulcanisatio | |
| | (charging/dischargin | | | PC 18: Ink | | | n or | |
| | g) from/to | inclusion into | | and toners | | | polymerisati | |
| | vessels/large | or onto a | | PC 0: | | | on processes | |
| | containers at | matrix | | Other: | | | Release | |
| | | ERC 8d: | | artists | | | Agent; Acid | |
| | PROC 9: Transfer of | | | supply and | | | Scavenger | |
| | substance or | dispersive | | hobby | | | | |
| | preparation into | outdoor use of | | preparation | | | | |
| | | processing | | S | | | | |
| | | aids in open | | | | | | |
| | line, including | systems | | | | | | |
| | weighing) | ERC 8f: Wide | | | | | | |
| | PROC 14: | dispersive | | | | | | |
| | Production of | outdoor use | | | | | | |
| | preparations or | resulting in | | | | | | |
| | articles by tabletting, | | | | | | | |
| | compression, | or onto a | | | | | | |
| | extrusion, | matrix | | | | | | |
| | pelletisation | ERC 11a: | | | | | | |
| | | Wide | | | | | | |
| | | dispersive | | | | | | |
| | | indoor use of | | | | | | |
| | | long-life | | | | | | |
| | | articles and | | | | | | |
| | | materials with | | | | | | |
| | | low release | | | | | | |
| | I . | ERC 11b: | I | I | I | | I | l |

| Wide |
|----------------|
| dispersive |
| indoor use of |
| long-life |
| articles and |
| materials with |
| high or |
| intended |
| release |
| (including |
| abrasive |
| processing) |

Use by professional workers

| | ssionar workers | | | | | | | |
|--------------------------------|---|---|--|---|----------------|----|--|-------------------------------------|
| Identified Use (IU) name | Process Category (PROC) | Environmental Release Category (ERC) | Substance supplied to that use in form of | Category | of Use (SU) | | function of | Articl e Categ ory (AC) |
| inks - CEPE 12-04-10 | 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) | 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 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 ERC 11a: Wide dispersive indoor use of long-life articles and materials with low release | | PC 9a: Coatings and paints, thinners, paint removes | N/A | no | Stabilisers Processing aid, not otherwise listed Impregnation agents Complexing agents Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisatio n processes Release Agent; Acid Scavenger | N/A |

| | work-up of substances | | | | | | | |
|--------------|-------------------------|-------------------|---------|------------|--------|-----|---------------|--------|
| | bound in materials | | | | | | | |
| | and/or articles | | | | | | | |
| | PROC 25: Other hot | | | | | | | |
| | work operations with | | | | | | | |
| | metals | | | | | | | |
| Adhesives - | PROC 5: Mixing or | ERC 8c: Wide | in a | PC 1: | SU 0: | no | Stabilisers | N/A |
| FEICA V26 | blending in batch | dispersive | mixture | Adhesives | Other: | | Processing | |
| | processes for | indoor use | | , sealants | former | | aid, not | |
| | formulation of | resulting in | | ĺ | SU 22 | | otherwise | |
| | preparations and | inclusion into or | | | | | listed | |
| | articles | onto a matrix | | | | | Impregnation | |
| | (multistage and/or | ERC 8f: Wide | | | | | agents | |
| | significant contact) | dispersive | | | | | Complexing | |
| | PROC 8a: Transfer of | outdoor use | | | | | agents | |
| | substance or | resulting in | | | | | Lubricants | |
| | preparation | inclusion into or | | | | | and lubricant | |
| | (charging/discharging) | onto a matrix | | | | | additives | |
| | from/to vessels/large | | | | | | Process | |
| | containers at non- | | | | | | regulators, | |
| | dedicated facilities | | | | | | used in | |
| | PROC 8b: Transfer of | | | | | | vulcanisation | |
| | substance or | | | | | | or | |
| | preparation | | | | | | polymerisatio | |
| | (charging/discharging) | | | | | | n processes | |
| | from/to vessels/large | | | | | | Release | |
| | containers at dedicated | | | | | | Agent; Acid | |
| | facilities | | | | | | Scavenger | |
| | PROC 9: Transfer of | | | | | | | |
| | substance or | | | | | | | |
| | preparation into small | | | | | | | |
| | containers (dedicated | | | | | | | |
| | filling line, including | | | | | | | |
| | weighing) | | | | | | | |
| | PROC 10: Roller | | | | | | | |
| | application or brushing | | | | | | | |
| | PROC 11: Non | | | | | | | |
| | industrial spraying | | | | | | | |
| | PROC 13: Treatment | | | | | | | |
| | of articles by dipping | | | | | | | |
| | and pouring | | | | | | | |
| Cleaning and | PROC 1: Use in closed | | in a | | SU 0: | no | Stabilisers | N/A |
| maintenance | | Industrial use of | mixture | Washing | Other: | | Processing | |
| products - | of exposure | processing aids | | and | former | | aid, not | |
| AISE | PROC 2: Use in | in processes and | | cleaning | SU 22 | | otherwise | |
| 02-11-09 | closed, continuous | products, not | | products | | | listed | |
| | process with | becoming part | | (including | | | Impregnation | |
| | occasional controlled | of articles | | solvent | | | agents | |
| | exposure | ERC 8a: Wide | | based | | | Complexing | |
| | | dispersive | | products) | | | agents | |
| | substance or | indoor use of | | | | | Lubricants | |
| | preparation | processing aids | | | | | and lubricant | |
| | (charging/discharging) | ın open systems | | | | | additives | |
| | from/to vessels/large | | | | | | Process | |
| | containers at non- | | | | | | regulators, | |
| | dedicated facilities | | | | | | used in | |
| | PROC 10: Roller | | | | | | vulcanisation | |
| | application or brushing | | | | | | or | |
| | PROC 11: Non | | | | | | polymerisatio | |
| | industrial spraying | | | | | | n processes | |
| | PROC 13: Treatment | | | | | | Release | |
| | of articles by dipping | | | | | | Agent; Acid | |
| | and pouring | ED G C . * : | | ng : | OX Y S | | Scavenger | 1.6 |
| Construction | PROC 8a: Transfer of | | in a | | | yes | Stabilisers | AC 4: |
| Chemicals - | substance or | dispersive | mixture | Adhesives | Other: | | Processing | Stone, |

| Dt. | preparation | outdoor use of | , sealants | former | aid, not | plaster, |
|------------|-------------------------|--------------------|------------|--------|---------------|----------|
| Bauchemie | (charging/discharging) | processing aids | PC 9a: | SU 21, | otherwise | cement |
| Version 2, | from/to vessels/large | in open systems | Coatings | former | listed | , glass |
| March 2010 | containers at non- | ERC 8f: Wide | and | SU 22 | Impregnation | and |
| | dedicated facilities | dispersive | paints, | | agents | cerami |
| | PROC 10: Roller | outdoor use | thinners, | | Complexing | c |
| | application or brushing | resulting in | paint | | agents | articles |
| | PROC 11: Non | inclusion into or | removes | | Lubricants | AC 13: |
| | industrial spraying | onto a matrix | PC 9b: | | and lubricant | Plastic |
| | PROC 13: Treatment | ERC 10a: Wide | Fillers, | | additives | articles |
| | of articles by dipping | dispersive | putties, | | Process | |
| | and pouring | outdoor use of | plasters, | | regulators, | |
| | | long-life articles | modelling | | used in | |
| | | and materials | clay | | vulcanisation | |
| | | with low release | | | or | |
| | | ERC 11a: Wide | | | polymerisatio | |
| | | dispersive | | | n processes | |
| | | indoor use of | | | Release | |
| | | long-life articles | | | Agent; Acid | |
| | | and materials | | | Scavenger | |
| | | with low release | | | | |

Uses by consumers

| Uses by cons | uniers | | | | | 1 | |
|-----------------------------------|-----------------------------------|---|---|---|--------------------------|---|-----------------------------|
| Identified Use (IU) name | Process Categor y (PROC) | Environmental Release Category (ERC) | Substan ce supplied to that use in form of | Product Category (PC) | Sector of Use (SU) | | Article Category (AC) |
| Coatings and inks - CEPE 12-04-10 | | 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 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 and materials with low release | | Coatings and paints, thinners, paint removes PC 9b: Fillers, putties, plasters, modelling clay PC 9c: Finger paints | | Stabilisers Processing aid, not otherwise listed Impregnation agents Complexing agents Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Release Agent; Acid Scavenger | N/A |
| Adhesives - FEICA V26 | | 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 | N/A | Stabilisers Processing aid, not otherwise listed Impregnation agents Complexing agents Lubricants and lubricant additives | N/A |

| Process regulators, used in vulcanisation or polymerisation processes regulators, used in vulcanisation or polymerisation | | | | I | | | I | Drooss | |
|--|--------------|-------|--------------|---------|----------------|--------|-----|------------------|-------------|
| Cosmetics - Collips and the personnel of processes and dispersive indoor use of processing aids in open systems N/A ERC 8a: Wide dispersive indoor use of processing aids in open systems N/A ERC 8a: Wide dispersive indoor use of processing aids in open systems N/A ERC 8a: Wide dispersive indoor use of processing aids in open systems REC 8a: Wide dispersive indoor use of processing aids in open systems N/A PC 39: N/A no Stabilisers Processing aids in open systems N/A personal care products N/A Dr. A products N/A no processing aids in open systems N/A no processing aids in open systems N/A no products N/A no processing aids in open systems N/A no products N/A no processing aids in open systems N/A no products N/A no processing aids in open systems N/A no products N/A no processing aids in open systems N/A no processing aids in open systems N/A no products N/A no processing aids in open systems N/A no products N/A no products (e.g. disinfectants, pest control) N/A products N/A no products (e.g. disinfectants, pest control) N/A products N/A no products (e.g. disinfectants, pest control) N/A products N/A no products (e.g. disinfectants, pest control) N/A products N/A no products (e.g. disinfectants, pest control) N/A products N/A no products (e.g. disinfectants, pest control) N/A products N/A no products (e.g. disinfectants, pest control) N/A products N/A no products (e.g. disinfectants, pest control) N/A products N/A no products (e.g. disinfectants, pest control) N/A products N/A no products (e.g. disinfectants, pest control) N/A products N/A no products (e.g. disinfectants, pest control) N/A products N/A no products (e.g. disinfectants, pest control) N/A products N/A no products (e.g. disinfectants, pest control) N/A products N/A no processing aids in open systems (e.g. disinfectants, pest control) N/A products N/A no products (e.g. disinfectants, pest control) N/A no products (e.g. disinfectants, pest control) N/A products N/A no products (e.g. disinfectants, pest control) N/A produ | | | | | | | | | |
| Cosmetics - Cosmetics - Cosmetics - Cosmetics - Cosmetics - Col IPA dispersive indoor use of processing aids in open systems ERC 8a: Wide dispersive indoor use of processing aids in open systems ERC 8a: Wide dispersive indoor use of processing aids in open systems ERC 8a: Wide maintenance dispersive indoor use of processing aids in open systems ERC 8a: Wide dispersive indoor use of processing aids in open systems ERC 8a: Wide dispersive indoor use resultation on the products of complexing agents and lubricant additives or processing aids in open systems ERC 8a: Wide dispersive indoor use resultating in inclusion into or or one processing aids in open systems ERC 8c: Wide dispersive indoor use resulting in inclusion into or onto a matrix and inclusion into or onto a matrix and paints, thinners, paint inclusion into or onto a matrix and paints, plasters, modelling clay outdoor use of processing aids in open systems ERC 8c: Wide dispersive indoor use resulting in inclusion into or onto a matrix and paints, pasters, modelling clay outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive indoor use resulting in inclusion into or onto a matrix and paints, pasters, modelling clay outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive indoor use resulting in inclusion into or onto a matrix and paties, plasters, plasters, plasters, polymerisation processes regulators, used in vulcanisation or polymerisation processes regulators, used in vulcanisation or polymerisation processes regulators, used in vulcanisation or polymerisation processes regulators used in vulcanisation or polymerisation processes Release Agent; and ceramic lubricant additives and ce | | | | | | | | | |
| Cosmetics - COLIPA Section Secti | | | | | | | | 1. | |
| Release Agent; Acid Seavenger | | | | | | | | , · | |
| Cosmetics - COLIPA dispersive indoor use of processing aids in open systems Solution Solution | | | | | | | | | |
| Cosmetics - COL IPA dispersive indoor use of processing aids in open systems Cleaning and maintenance products ASE 20-10-09 Cosmetics, opensonal care products Cleaning and maintenance products ASE 20-10-09 Cosmetics, opensonal care products Cleaning and maintenance products ASE 20-10-09 Cosmetics, opensonal care products Cleaning and maintenance products ASE 20-10-09 Cosmetics, opensonal care products Complexing agents Acid Scavenger Acid Scavenger N/A on publication or or polymerisation processes Release Agent; Acid Scavenger N/A processing aid, ont otherwise listed impregnation agents PC 8: Biocidal products (e.g. disinfectants, pest control) PC 31: Polishes and wax blends PC 35: Washing and cleaning products (including solvent based products) Complexing agents Lubricants and lubricant additives Processing aid, not otherwise listed impregnation agents Lubricants and lubricant additives Complexing agents Lubricants and lubricant additives Processing aid, not otherwise is the products (including solvent based products) Complexing agents Lubricants and lubricant additives Processing aid, not otherwise is the products (including solvent based products) Complexing agents Lubricants and lubricant additives Processing aid, not otherwise is the products (including solvent based products) Complexing agents Lubricants and lubricant additives Processing aid, not otherwise is the products of in vulcanisation or or polymerisation processes Release Agent; Act 3: Stone, Processing aid, not otherwise is the products of processing aid in open systems ERC 8t: Wide dispersive indoor use of processing aids in open systems ERC 8t: Wide dispersive outdoor use of processing aids in open systems ERC 8t: Wide dispersive outdoor use of processing aids in open systems ERC 8t: Wide dispersive outdoor use of processing aids in open systems ERC 8t: Wide dispersive on the processes of processing aids in open systems ERC 8t: Wide dispersive on the processes of processing aid in products of proces | | | | | | | | | |
| Collaring and maintenance products PC 3: Air care products Processing aid, and otherwise listed lampregnation agents Lubricants and lubricant additives Processing aid, and otherwise listed lampregnation agents Lubricants and lubricant additives PC 3: Air care products PC 3: Air care products PC 3: Air care products PC 8: Biocidal products (e.g. disinfectants, pest control) PC 3: Polishes and was blends PC 3: Polishes | | 27/4 | EDGO W'I | > T / A | DC 20 | NT/ 4 | | | > Y / A |
| 15-04-10 | | N/A | | N/A | | N/A | no | | N/A |
| aids in open systems Systems Systems Systems Systems Systems Systems Systems Systems Systems Systems Sec | | | | | | | | | |
| Systems Impregnation agents Complexing agents Lubricants and lubricant additives Process regulators, used in vulcanisation or polymerisation processes Release Agent; Acid Scavenger Stabilisers PC 8: Biocidal products (e.g. disinfectants, pest control) PC 31: Polishes and wax blends PC 35: Washing and cleaning products (e.g. disinfectants, pest control) PC 31: Polishes and wax blends Lubricants and Lubricant | 13-04-10 | | | | | | | | |
| Alse Section | | | | | products | | | 110000 | |
| Complexing agents Lubricants and lubricant additives Process regulators, used in vulcanisation PC 8: Air care Processing aid, not otherwise Instead Inst | | | | | | | | | |
| Cleaning and maintenance products - aids in open systems N/A PC 3: Air care products - aids in open systems PC 8: Biocidal products PC 8: Biocidal products PC 3: Complexing aids in open systems PC 9: Construction PC 3: Washing and cleaning products (including solvent based products) PC 9: Stabilisers PC 8: Biocidal products (including solvent based products) PC 3: Washing and cleaning products (including solvent based products) PC 9: Stabilisers PC 9 | | | | | | | | | |
| Cleaning and maintenance use of processing aids in open systems Polishes and wax blends Poducts Poducts Polishes and wax blends Poducts Polishes Polishe | | | | | | | | | |
| Cleaning and maintenance products - 20-10-09 Cleaning and maintenance products - 20-10-09 Cleaning and maintenance products - 20-10-09 AISE 20-10-09 Construction Construction N/A ERC 8a: Wide dispersive indoor use of processing aids in open systems Construction N/A ERC 8a: Wide dispersive indoor use of processing aids in open systems Construction Chemicals - Dt. Bauchemic version 2, Bauchemic version 2, Bauchemic version 2, ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive indoor use resulting in inclusion into or onto a matrix ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems outdoor use of process | | | | | | | | | |
| Cleaming and N/A ERC 8a: Wide maintenance products - dispersive indoor use of processing aids in open systems Construction N/A ERC 8a: Wide dispersive indoor use of processing aids in open systems Construction N/A ERC 8a: Wide dispersive indoor use of processing aids in open systems Construction N/A ERC 8a: Wide dispersive indoor use of processing aids in open systems Construction N/A ERC 8a: Wide dispersive indoor use resulting in inclusion into or onto a matrix ERC 8d: Wide dispersive outdoor use of processing aids in open systems ERC 8d: Wide dispersive outdoor use of processing aids in open systems ERC 8d: Wide dispersive outdoor use of processing aids in open systems ERC 8f: Wide dispersive outdoor use of processing aids in open systems ERC 8f: Wide dispersive outdoor use of processing aids in open systems ERC 8f: Wide dispersive outdoor use of processing aids in open systems ERC 8f: Wide dispersive outdoor use of processing aids in open systems ERC 8f: Wide dispersive outdoor use of processing aids in open systems ERC 8f: Wide dispersive outdoor use of processing aids in open systems ERC 8f: Wide dispersive outdoor use of processing aids in open systems ERC 8f: Wide dispersive outdoor use of processing aids in open systems ERC 8f: Wide dispersive outdoor use of processing aids in open systems ERC 8f: Wide dispersive outdoor use of processes are gulators, used in vulcanisation or polymerisation processes regulators, used in vulcanisation or polymerisation processes are regulators, used invalcanisation or polymerisation processes are process are regulators, used invalcanisation or polymerisation processes are | | | | | | | | | |
| Cleaning and N/A ERC 8a: Wide dispersive indoor use of processing aids in open systems Cleaning and N/A ERC 8a: Wide dispersive indoor use of processing aids in open systems N/A ERC 8a: Wide dispersive indoor use of processing aids in open systems N/A ERC 8a: Wide dispersive indoor use of processing aids in open systems N/A ERC 8a: Wide dispersive indoor use of processing aids in open use resulting in inclusion into or onto a matrix ERC 8d: Wide dispersive outdoor use of processing aids in open use of processing aids in open use resulting in inclusion into or onto a matrix ERC 8d: Wide dispersive outdoor use of processing aids in open use resulting in inclusion into or onto a matrix personal paints, and ceramic listed users and ceramic limpregnation and ceramic limpregnation and ceramic listed users and ceramic limpregnation and ceramic listed users and ceramic limpregnation an | | | | | | | | | |
| Cleaming and N/A ERC 8a: Wide maintenance products - AISE 20-10-09 systems Construction N/A ERC 8a: Wide dispersive indoor use of processing aid, in open systems ERC 8a: Wide dispersive indoor use of processing aids in open systems PC 9: N/A polymerisation processes N/A processing aid, not otherwise listed Impregnation agents Lubricants and lubricant additives Process Pr | | | | | | | | | |
| Cleaning and M/A ERC 8a: Wide dispersive indoor use of processing aids in open systems REC 8a: Wide dispersive indoor use of processing aids in open systems REC 8a: Wide dispersive indoor use of processing aid in open systems REC 8a: Wide dispersive outdoor use of processing aid in open systems REC 8a: Wide dispersive outdoor use of processing aid in open systems REC 8a: Wide dispersive outdoor use of processing aid in open systems REC 8a: Wide dispersive outdoor use of processing aid in open systems REC 8a: Wide dispersive outdoor use of processing aid in open systems REC 8f: Wide dispersive outdoor use of processing aid in open systems REC 8f: Wide dispersive outdoor use of processing aid in open systems REC 8f: Wide dispersive outdoor use of processing aid in open systems REC 8f: Wide dispersive outdoor use of processing aid in open systems REC 8f: Wide dispersive outdoor use of processing aid in open systems and paints, agents articles REC 8f: Wide dispersive outdoor use of processing aid in open systems and paints, agents articles REC 8f: Wide dispersive outdoor use of processing aid in open systems and paints, agents articles REC 8f: Wide dispersive outdoor use of processes are lease Agent; and or processes are products articles art | | | | | | | | | |
| Cleaning and maintenance products - use of processing aids in open systems Cloaning and March 2010 Cleaning and dispersive indoor use of processing aid dispersive indoor use of processing and the products (e.g. disinfectants, pest control) PC 31: Polishes and wax blends PC 35: Washing and cleaning products (including solvent based products) Construction Chemicals - Dt. Bauchemie Version 2, March 2010 Construction Chemicals - Dt. ERC 8c: Wide dispersive indoor use resulting in inclusion into or onto a matrix ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aid not otherwise instead in videanisation or or opolymerisation processes Release Agent; | | | | | | | | | |
| Cleaning and maintenance products - Acid Seavenger adispersive indoor use of processing aids in open systems Cleaning and maintenance products - dispersive indoor use of processing aids in open systems PC 8: Biocidal products (e.g. disinfectants, pest control) | | | | | | | | polymerisation | |
| Cleaning and maintenance products - AISE AISE 20-10-09 N/A ERC 8a: Wide dispersive indoor use of processing aids in open systems N/A ERC 8a: Wide dispersive indoor use of processing aids in open systems N/A ERC 8a: Wide dispersive indoor use of processing aids in open systems N/A ERC 8a: Wide dispersive indoor use of processing aids in open onto a matrix ERC 8a: Wide dispersive outdoor use of processing aids in open systems N/A ERC 8a: Wide dispersive indoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use of processes and caditives are processes and caditives are processes and caditives are processes and caditives are processes are processes are processes and caditives are processes are | | | | | | | | | |
| Cleaning and maintenance products - use of processing aids in open systems VA ERC 8a: Wide dispersive indoor use of processing aids in open systems PC 8: Biocidal products (e.g. disinfectants, pest control) PC 31: Polishes and wax blends PC 35: Washing and cleaning products (including solvent based products) PC 31: Adhesives, sealants PC 9a: Coatings and gaents PC 9a: Coatings and clispersive indoor use of processing aids in open systems PC 9b: Fillers, putties, plasters, elecase Agent; Acid Scavenger PC 9b: Fillers, putties, plasters, modelling clay PC 9b: Process regulators, used in vulcanisation or polymerisation profuses PC 9b: Fillers, putties, plasters, elecase Agent; additives Processing aids in open systems PC 9b: Fillers, putties, plasters, modelling clay PC 9b: Process regulators, used in vulcanisation or polymerisation profuses PC 9b: Fillers, putties, plasters, modelling clay PC 9b: Process regulators, used in vulcanisation or polymerisation profuses PC 9b: Fillers, putties, plasters, modelling clay PC 9b: Process regulators, used in vulcanisation or polymerisation profuses PC 9b: Fillers, putties, plasters, modelling clay PC 9b: Process regulators, used in vulcanisation or polymerisation profuses PC 9b: Fillers, putties, plasters, elasters, modelling clay PC 9b: Process regulators, used in vulcanisation or polymerisation profuses PC 9b: PC | | | | | | | | | |
| maintenance products - AISE aids in open systems March 2010 March 2010 | | NT/ A | EDGO W'I | > T / A | DC 2 A: | NT/ 4 | | | > Y / A |
| products - AISE 20-10-09 systems PC 8: Biocidal products (e.g. disinfectants, pest control) PC 31: Polishes and wax blends PC 35: Washing and cleaning products (including solvent based products) PC 1: N/A ERC 8a: Wide dispersive indoor use of processing aids in open systems ERC 8c: Wide dispersive outdoor use PC 8: Biocidal products (e.g. disinfectants, pest control) PC 31: Polishes and wax blends PC 35: Washing and cleaning products in vulcanisation or polymerisation processes Release Agent; Acid Scavenger AC 4: Stone, Processing aid, not otherwise listed in vulcanisation or polymerisation processing aid, not otherwise agents Lubricants and lubricant additives Processing aid, not otherwise listed in vulcanisation or plaster, cement, glass and ceramic articles Coatings and plasters, poutties, plasters, modelling clay outdoor use PC 9b: Fillers, putties, plasters, modelling clay outdoor use PC 9b: Fillers, polymerisation processes regulators, used in vulcanisation or polymerisation processes regulators and lubricant additives plaster, cement, glass and plaster, cement, glass and plaster, cement, glass and user and plaster, cement, glass and user and plaster, cement, glass and plaster, cement, glass and plaster, cement, glass and | | N/A | | N/A | | N/A | no | | N/A |
| AISE 20-10-09 systems products (e.g. disinfectants, pest control) PC 31: Polishes and wax blends PC 35: Washing and cleaning products (including solvent based products) Construction Chemicals - Dt. Bauchemie Version 2, March 2010 March 2010 March 2010 March 2010 March 2010 Aids in open systems products (e.g. disinfectants, pest control) PC 31: Polishes and wax blends PC 35: Washing and cleaning products (including solvent based products) MA ERC 8a: Wide dispersive indoor use of processing aids in open systems ERC 8d: Wide dispersive outdoor use of processing aids in open systems ERC 8f: Wide dispersive outdoor use of processing aids in open systems ERC 8f: Wide dispersive outdoor use of processing aids in open systems ERC 8f: Wide dispersive outdoor use of processing aids in open systems ERC 8f: Wide dispersive outdoor use of processing aids in open systems ERC 8f: Wide dispersive outdoor use of processing aids in open systems ERC 8f: Wide dispersive outdoor use of processing aids in open systems ERC 8f: Wide dispersive outdoor use of processing aids in open systems ERC 8f: Wide dispersive outdoor use of processes outdoor use outdoor use of processes outdoor use of processes outdoor use of processes outdoor use outdoor use outdoor use outdoor use outdoor use outdoor use of processes outdoor use | | | | | | | | | |
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| pest control) PC 31: Polishes and wax blends PC 35: Washing and cleaning products (including solvent based products) Construction N/A ERC 8a: Wide dispersive indoor use of processing aids in open systems ERC 8f: Wide dispersive outdoor use of processing aids in open systems ERC 8f: Wide dispersive outdoor use of processing aids in open systems ERC 8f: Wide dispersive outdoor use ERC 8f: Wide dispersive outdoor use ERC 8f: Wide dispersive outdoor use Or polymerisation processes regulators, used in vulcanisation or polymerisation processes Release Agent; Acid Scavenger N/A Adhesives, sealants PC 9a: Coatings and paints, thinners, paint removes PC 9b: Fillers, putties, plasters, additives Process Release Agents Complexing agents Ac 4: Stone, Processing aid, not otherwise and ceramic Impregnation agents Complexing agents AC 4: Stone, Processing aid, not otherwise cement, glass agents Complexing agents Lubricants and lubricant additives Processing aid, not otherwise and ceramic Impregnation agents Complexing agents AC 4: Stone, Processing aid, not otherwise and ceramic Impregnation agents Complexing agents AC 4: Stone, Processing aid, not otherwise and ceramic Impregnation agents Complexing additives Processing aid, not otherwise and ceramic Impregnation agents Complexing additives Processing aid, not otherwise and ceramic Impregnation agents Complexing additives Processing aid, not otherwise and ceramic Impregnation agents Complexing additives Processing aid, not otherwise and ceramic Impregnation agents Complexing additives Processing aid, not otherwise and ceramic Impregnation agents Complexing additives Processing aid, not otherwise and ceramic Impregnation agents Complexing agents Construction or polymerisation processes Release Agent; | | | 1 ^ | | | | | | |
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| wax blends PC 35: Washing and cleaning products (including solvent based products) Construction N/A ERC 8a: Wide dispersive indoor Dt. Bauchemie Version 2, March 2010 ERC 8c: Wide dispersive indoor use resulting in inclusion into or onto a matrix ERC 8d: Wide dispersive outdoor use of processing aids in open systems ERC 8d: Wide dispersive outdoor use Wax blends PC 35: Washing and cleaning products (including solvent based products) Process Release Agent; Acid Scavenger N/A yes Stabilisers Processing aid, not otherwise listed and ceramic Impregnation processing agents AC 13: Complexing agents additives Process regulators, used in vulcanisation or plaster, not otherwise agents AC 13: Complexing agents AC 13: Complexing agents additives Process regulators, used in vulcanisation or plaster, not otherwise agents AC 13: Complexing agents AC 13: Complexing agents additives Process regulators, used in vulcanisation or plaster, coment, glass and ceramic libricant additives Process regulators, used in vulcanisation or polymerisation processes Release Agent; AC 4: Stone, plaster, not otherwise and ceramic libricant additives Processing additives Process regulators, used in vulcanisation or polymerisation processes Release Agent; | | | | | | | | | |
| PC 35: Washing and cleaning products (including solvent based products) Construction Chemicals - Dt. Bauchemie Version 2, March 2010 March 2010 PC 35: Washing and cleaning products (including solvent based products) PC 1: Adhesives, sealants PC 9a: Coatings and paints, thinners, paint removes use regulators, used in vulcanisation or polymerisation processing aid, not otherwise cement, glass and ceramic listed inclusion into or onto a matrix ERC 8c: Wide dispersive indoor use of processing aids in open systems ERC 8d: Wide dispersive outdoor use of processing aids in open systems ERC 8f: Wide dispersive outdoor use PC 9a: Coatings and paints, thinners, paint removes agents Complexing agents Complexing agents Lubricant additives Process regulators, used in vulcanisation or polymerisation processes regulators, used in vulcanisation or polymerisation processes Release Agent; | | | | | | | | | |
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| Products (including solvent based products) Processes Release Agent; Acid Scavenger | | | | | | | | | |
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| Construction N/A ERC 8a: Wide dispersive indoor use of processing aids in open systems ERC 8d: Wide dispersive outdoor use of processing aids in open systems ERC 8a: Wide dispersive indoor use of processing aids in open systems ERC 8c: Wide dispersive indoor use of processing aids in open systems ERC 8d: Wide dispersive outdoor use of processing aids in open systems ERC 8f: Wide dispersive outdoor use of use resulting in open systems ERC 8f: Wide dispersive outdoor use of processing aids in open systems ERC 8f: Wide dispersive outdoor use of use resulting in open systems ERC 8f: Wide dispersive outdoor use of processes Release Agent; | | | | | products) | | | * * | |
| Construction Chemicals - Dt. Bauchemie Version 2, March 2010 ERC 8c: Wide dispersive indoor use of processing inclusion into or onto a matrix ERC 8d: Wide dispersive outdoor use of processing aids in open systems ERC 8f: Wide dispersive outdoor use of processing aids in open systems ERC 8f: Wide dispersive outdoor use of processing aids in open systems ERC 8f: Wide dispersive outdoor use of processing aids in open systems ERC 8f: Wide dispersive outdoor use of processing aids in open systems ERC 8f: Wide dispersive outdoor use of processes Release Agent; | | | | | | | | | |
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| Dt. Bauchemie Version 2, March 2010 ERC 8c: Wide dispersive indoor use resulting in onto a matrix ERC 8d: Wide dispersive outdoor use of processing aids in open systems ERC 8f: Wide dispersive outdoor use Use of processing aids in open side in vulcanisation or polymerisation processes Release Agent; Indicates and coramic limpregnation articles AC 13: Complexing agents AC 13: Plastic articles Not otherwise cement, glass and limpregnation articles Not of processing aids in open systems ERC 8d: Wide dispersive outdoor use Impregnation articles AC 13: Plastic articles | | [" | | [" | | . ". 1 | | | 1 1 |
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| dispersive indoor use resulting in inclusion into or onto a matrix ERC 8d: Wide dispersive outdoor use of processing aids in open systems ERC 8f: Wide dispersive outdoor use of outdoor use out | | | | | _ | | | 1 ^ - | |
| use resulting in inclusion into or onto a matrix putties, plasters, modelling clay outdoor use of processing aids in open systems ERC 8f: Wide dispersive outdoor use of the process outdoor use agents articles outdories and lubricant additives outdories of the process regulators, used in vulcanisation or polymerisation processes outdoor use of the process outdoor use out | March 2010 | | | | | | | | |
| inclusion into or onto a matrix putties, putties, plasters, additives process regulators, used in vulcanisation or polymerisation processes outdoor use of the process outdoor use the putties, putties, putties, additives the process regulators, used in vulcanisation or polymerisation processes Release Agent; | | | | | | | | | |
| onto a matrix ERC 8d: Wide dispersive outdoor use of processing aids in open systems ERC 8f: Wide dispersive outdoor use Unbricant additives Process regulators, used in vulcanisation or polymerisation processes outdoor use Release Agent; | | | | | | | | 0 | ui ticics |
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| outdoor use of processing aids in open systems ERC 8f: Wide dispersive outdoor use regulators, used in vulcanisation or polymerisation processes Release Agent; | | | | | plasters, | | | | |
| processing aids in open systems ERC 8f: Wide dispersive outdoor use in vulcanisation or polymerisation processes Release Agent; | | | | | modelling clay | | | | |
| open systems ERC 8f: Wide dispersive processes outdoor use or polymerisation processes Release Agent; | | | | | | | | | |
| ERC 8f: Wide dispersive polymerisation processes outdoor use polymerisation processes Release Agent; | | | | | | | | | |
| dispersive processes outdoor use Release Agent; | | | | | | | | 1 | |
| outdoor use Release Agent; | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

| | | inclusion into or | | | | | | |
|----------------|-----|--------------------------------|-----|-----------------|-----|-----|------------------|---------------|
| | | onto a matrix 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 | | | | | | |
| Pens, pencils, | N/A | ERC 2: | N/A | PC 9b: Fillers, | N/A | yes | Stabilisers | AC 02: Other |
| markers, | | Formulation of | | putties, | | | Processing aid, | (intended to |
| modelling clay | | preparations | | plasters, | | | not otherwise | be released): |
| | | ERC 3: | | modelling clay | | | listed | TARIC 9608 |
| | | Formulation in | | PC 18: Ink and | | | Impregnation | (pens), |
| | | materials | | toners | | | agents | TARIC 9609 |
| | | ERC 8a: Wide | | PC 26: Paper | | | Complexing | (pencils) |
| | | dispersive indoor | | and board dye, | | | agents | AC 10: |
| | | use of processing | | finishing and | | | Lubricants and | Rubber |
| | | aids in open | | impregnation | | | lubricant | articles |
| | | systems | | products: | | | additives | AC 13: |
| | | ERC 8c: Wide | | including | | | Process | Plastic |
| | | dispersive indoor | | bleaches and | | | regulators, used | articles |
| | | use resulting in | | other | | | in vulcanisation | |
| | | inclusion into or | | processing aids | | | or | |
| | | onto a matrix | | PC 32: | | | polymerisation | |
| | | ERC 8d: Wide | | Polymer | | | processes | |
| | | dispersive | | preparations | | | Release Agent; | |
| | | outdoor use of | | and | | | Acid Scavenger | |
| | | processing aids in | | compounds | | | | |
| | | open systems | | PC 0: Other: | | | | |
| | | ERC 8f: Wide | | artists supply | | | | |
| | | dispersive | | and hobby | | | | |
| | | outdoor use | | preparations | | | | |
| | | resulting in | | <u></u> | | | | |
| | | inclusion into or | | | | | | |
| | | onto a matrix | | | | | | |
| | | ERC 11a: Wide | | | | | | |
| | | dispersive indoor | | | | | | |
| | | use of long-life | | | | | | |
| | | articles and | | | | | | |
| | | materials with | | | | | | |
| | | low release | | | | | | |
| | | ERC 11b: Wide | | | | | | |
| | | dispersive indoor | | | | | | |
| | | use of long-life | | | | | | |
| | | articles and | | | | | | |
| | | materials with | | | | | | |
| | | high or intended | | | | | | |
| | | release (including | | | | | | |
| | | abrasive | | | | | | |
| | | processing) | | | | | | |

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-FLOW(MI,IL,GP) 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: According to Annex XII, the substance does not meet PBT or vPvB criteria.

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) | |
|----------|-----------|------------------------------|-----------|-----------------|--|--|
| 557-05-1 | 209-151-9 | Not available | 100 | Zinc distearate | See section 2 | |

SECTION 4 : FIRST-AID MEASURES

4.1 Description of first aid measures

General notes

- Not available

Following inhalation

- Move victim to fresh air.

Following skin contact

- Wash off with plenty of water.

Following eye contact

- Rinse with plenty of water.

Following ingestion

- Clean mouth with water.
- Drink plenty of water afterwards.

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: Water spray, Foam, Carbon dioxide (CO₂), Dry chemical, Sand
- Unsuitable extinguishing media: High volume water jet

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

- In the event of fire, wear self-contained breathing apparatus.

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 dust formation.
- Remove all sources of ignition.

6.2 Environmental precautions

- Do not flush into surface water or sanitary sewer system.
- Avoid subsoil penetration.

6.3 Methods and material for containment and cleaning up

For containment

- Not available

For cleaning up

- Use mechanical handling equipment for cleaning up.
- Keep in suitable, closed 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:

- Take precautionary measures against static discharges.

Measures to prevent fire:

-Keep away from sources of ignition - No smoking

Measures to prevent aerosol and dust generation

- Avoid formation and build up of dust.

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:

- Store at room temperature in the original container.
- Keep in a dry 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 |
|---------------------------------|---------------------|------------------|---------------------------------|-----------------|---------------------|---------------|----------------|
| Fatty acids, C16-18, zinc salts | Not available | Not available | Not available | Not available | Not available | Not available | Not available |

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: No specific measures
Technical measures to prevent exposure: No specific measures

8.2.2 Individual protection measures, such as personal protective equipment:

Eye and face protection: Not available

Skin protection

Hand protection: Not available
Other skin protection: Not available
Respiratory protection: Not available
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 Color: White Odor: Ordorless

Odor threshold: Not available

pH: Not available

Melting point/freezing point: 121°C (101.325 kPa) Initial boiling point and boiling range: Not applicable

Flash point: Not applicable Evaporation rate: Not available

Flammability (solid, gas): Non-flammable

Upper/lower flammability or explosive limits: Not applicable

Vapor pressure: The volatility of solid substances with a melting point of 121°C can be safely assumed

to be negligible.

Solubility (ies): Ranges from 0.3 to 1.8 mg/L depending on test conditions.

Vapor density: Not available Relative density: Not available

Partition coefficient: n-octanol/water: Not applicable

Auto ignition temperature : Not applicable **Decomposition temperature :** 330°C

Viscosity: Not available

Explosive properties : Not applicable **Oxidizing properties :** Not applicable **Molecular weight :** $\geq 576.22 \leq 632.33$ g/mol

Surface tension : 64.56 mN/m at 20.5 °C (90 % saturated aqueous solution)

9.2 Other information

- Not available

SECTION 10: STABILITY AND REACTIVITY

- 10.1 Reactivity
 - Not available
- 10.2 Chemical stability
 - Not available
- 10.3 Possibility of hazardous reactions
 - Not available
- 10.4 Conditions to avoid
 - Not available
- 10.5 Incompatible materials
 - Not available
- 10.6 Hazardous decomposition products
 - Not available

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

(a) Acute toxicity;

Oral - Rat, $LD_{50} > 5000 \text{ mg/kg bw (OECD TG 401)}$

- Rabbit, $LD_{50} > 2000 \text{ mg/kg bw}$ Dermal Inhalation - Rat, $4\text{hr} - LC_{50} > 50 \text{ mg/L}$

- (b) Skin Corrosion/- In test on skin irritation with rabbits, skin irritations were not observed Irritation; (OECD TG 404).
- Eye- In test on eye irritation with rabbits, eye irritations were not observed (c) Serious Damage/ Irritation; (OECD TG 405).
- (d) Respiratory - Taking into account the complete absence of skin sensitization potential of sensitization; zinc compounds, respiratory sensitization is not expected to be of concern for the zinc and zinc compounds including Fatty acids, C16-18, zinc salts.
- (e) Skin Sensitization; No skin sensitization reactions were observed in humans (Schwartz-Peck Prophetic Patch and Draize-Shelanski Repeated Insult Patch Tests).
- (f) Carcinogenicity;
- (g) Mutagenicity; - The overall weight of the evidence from the existing in vitro and in vivo

genotoxicity assays suggests that zinc compounds do not have biologically

relevant genotoxic activity.

- Reproductive No evidence exists that would justify classification of zinc compounds for (h) effects to neither fertility nor developmental toxicity. toxicity;
- target In acute inhalation toxicity test with rats, depression was observed. Specific (i) organ toxicity (single exposure);
- Specific target - In repeated oral toxicity study with mice for 13 weeks, repeated toxicity organ toxicity (repeat related effects were not observed. (NOEL = 3000 mg/kg bw/day). Animals in the 30,000 ppm group showed retarded growth along with low food intake, exposure); abnormal values in a few hematological parameters and regressive changes of the pancreatic exocrine gland. There were no remarkable clinical signs in either sex in groups ≤ 3,000 ppm (OECD TG 408, read across; CAS No.

7733-02-0).

(k) Aspiration - Not available

Hazard;

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Acute toxicity

Fish - 96hr-LC₅₀ (Brachydanio rerio)>10000 mg/L (EU Method C.1,

GLP)

- 48hr-LC₅₀ (Daphnia magna)> 100 mg/L (nominal at pH Invertebrates

6)(mobility, OECD TG 202, GLP)

- $72\text{hr-EC}_{50}(Pseudokirchneriella\ subcapitata) = 70.9\ \text{mg/L}\ (growth$ Algae

rate, OECD TG 201, GLP)

Chronic toxicity

- 96hr-NOEC(Species not reported) = 0.9 mg/L (OECD TG 203) Fish

Invertebrates - Not available

- 72hr-NOEC(*Pseudokirchneriella subcapitata*) = 19.3 mg/L Algae

(growth rate, OECD TG 201, GLP)

12.2 Persistence and Persistence: Not available

Degradability Degradability: readily biodegradable, but failing 10-day window

(93% biodegradation observed after 28 d)(OECD TG 301D)

- Based on read-across of zinc bioaccumulation data and the fact 12.3 Bioaccumulative potential

that Fatty acids, C16-18, zinc salts is readily biodegradable, the

substance is not expected to be bioaccumulative.

- Not applicable 12.4 Mobility in soil

12.5 Results of PBT and vPvB - Not available assessment

12.6 Other adverse effects - Not available

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product/Packaging disposal

Not available

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

Waste treatment-relevant information

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Sewage disposal-relevant information

Consider the required attentions in accordance with waste treatment management regulation.

Other disposal recommendations

Not available

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 applicable **Precautionary statement codes :** Not applicable

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 HI-FLOW(MI,IL,GP) prepared in accordance with Regulation (EU) 2015/830 (REACH), Annex II, and OSHA 29 CFR 1910.1200

16.1 Indication of changes

Date Updated: 31 May 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.chemistrv.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.