****

**Gravel Lock Ltd**

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New Zealand

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Email: info@gravellock.co.nz

**Where Science  Meets the Earth**

****

FCM – Flexi-C-Ment

**MATERIAL DATA SAFETY SHEET**

|  |  |  |
| --- | --- | --- |
| **SECTION 1: Identification** | | 1. |
| **1.1** | **Product identifier** |  |
|  | **Commercial product name:** | **FLEXI - C - MENT** |
|  |  | **1100 KG IBC** |
| **1.2** | **Relevant identified uses of the substance or mixture and uses advised against** | |
|  | Use of substance / preparation: |  |

Industrial.

Binder for: Construction products .

All other areas of application to be agreed with the Application Engineering/ Technical Marketing Department of the manufacturer.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **1.3** | **Details of the supplier of the safety data sheet** |  |  |  |  |
|  | Manufacturer/distributor: | Wacker Chemie AG | |  |  |
|  | Street/POB-No.: | Hanns-Seidel-Platz 4 | |  |  |
|  | State/postal code/city: | D 81737 München | |  |  |
|  | Telephone: | +49 | 89 6279-0 |  |  |
|  | Telefax: | +49 | 89 6279-1770 |  |  |
|  | Contact point: | Wacker Chemicals Australia Pty. Ltd. | |  |  |
|  | Street/POB-No.: | Unit 1 / 35 Dunlop Road | |  |  |
|  | Postal code/city: | Mulgrave, Victoria 3170 | |  |  |
|  | Country: | Australia | |  |  |
|  | Telephone: | +61 | 3 9541 8900 |  |  |
|  | Telefax: | +61 | 3 9541 8989 |  |  |
|  | Information about the Safety Data Sheet: | Telephone | | +49 | 8677 83-4888 |
|  |  | Telefax | | +49 | 8677 886-9722 |
|  |  | eMail | | WLCP-MSDS@wacker.com | |
| **1.4** | **Emergency telephone number** |  |  |  |  |
|  | **Emergency Information:** | **Regulatory Compliance Manager** | | **+61** | **3 9541 8900** |
|  | **Emergency response service only (24h):** |  |  | **+64** | **9 929 1483** |

|  |  |  |
| --- | --- | --- |
| **SECTION 2: Hazard identification** | | 2. |
| **2.1** | **Classification of the substance or mixture** |  |
|  | Not a hazardous substance or mixture. |  |
| **2.2** | **Label elements** |  |
|  | No labeling according to GHS required. |  |
| **2.3** | **Other hazards** |  |
|  | No data available. |  |
|  | |  |
| **SECTION 3: Composition/information on ingredients** | | 3. |
| **3.1** | **Substances** |  |
|  | not applicable |  |
| **3.2** | **Mixtures** |  |
| **3.2.1** | **Chemical characteristics** |  |
|  | Copolymer of: vinyl acetate + ethylene (dispersion in water) . |  |
| **3.2.2** | **Hazardous ingredients** |  |

This material does not contain any ingredients above the permitted limit(s).

This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57) in amounts above ≥ 0.1%.

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**Safety Data Sheet**



|  |  |  |
| --- | --- | --- |
| **Material: 60080804** | **FLEXI - C - MENT** |  |
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|  |  |  |

|  |  |
| --- | --- |
| **SECTION 4: First-aid measures** | 4. |
| **4.1Description of first aid measures** |  |
| **General information:** |  |
| Under ordinary workplace conditions: No special measures required. |  |

**After contact with the eyes:**

Rinse immediately with plenty of water. Seek medical advice in case of continuous irritation.

**After contact with the skin:**

Wash with plenty of water or water and soap. Seek medical advice in case of continuous irritation.

**After inhalation:**

No special measures required.

**After swallowing:**

In cases of sickness seek medical advice (show label if possible).

**4.2** **Most important symptoms and effects, both acute and delayed**

Any relevant information can be found in other parts of this section.

**4.3** **Indication of any immediate medical attention and special treatment needed**

Due to its physical properties, may cause mechanical irritation. Product may agglutinate in the gastro-intestinal tract. Medical assistance should be sought. Depending on the symptoms, invasive measures may be necessary. Further toxicology information in section 11 must be observed.

|  |  |  |
| --- | --- | --- |
| **SECTION 5: First-fighting measures** | | 5. |
| **5.1** | **Extinguishing media** |  |
|  | **Suitable extinguishing media:** |  |
|  | not applicable . |  |
|  | **Extinguishing media which must not be used for safety reasons:** |  |
|  | not applicable . |  |
| **5.2** | **Special hazards arising from the substance or mixture** |  |
|  | At low oxygen level: acetic acid. |  |
| **5.3** | **Advice for firefighters** |  |
|  | **Special protective equipment for fire fighting:** |  |
|  | Use respiratory protection independent of recirculated air. |  |
|  | **General information:** |  |
|  | Product does not burn. Use extinguishing measures appropriate to the source of the fire. Dried up material is combustible. |  |
|  | |  |
| **SECTION 6: Accidental release measures** | | 6. |
| **6.1** | **Personal precautions, protective equipment and emergency procedures** |  |
|  | Wear personal protection equipment (see section 8). If material is released indicate risk of slipping. |  |
| **6.2** | **Environmental precautions** |  |
|  | Prevent material from entering sewers or surface waters. Contain any fluid that runs out using suitable material (e.g. earth). |  |
| **6.3** | **Methods and material for containment and cleaning up** |  |
|  | Take up mechanically and dispose of according to local/state/federal regulations. For small amounts: Absorb with a liquid binding | |

material such as diatomaceous earth and dispose of according to local/state/federal regulations. Contain larger amounts and pump up into suitable containers. Clean up with plenty of water. Dispose of cleansing water in accordance with local/state/federal regulations.

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**6.4** **Reference to other sections**

Relevant information in other sections has to be considered. This applies in particular for information given on personal protective equipment (section 8) and on disposal (section 13).

|  |  |  |
| --- | --- | --- |
| **SECTION 7: Handling and storage** | | 7. |
| **7.1** | **Precautions for safe handling** |  |
|  | **General information:** |  |
|  | No special protective measures required. |  |
|  | **Precautions for safe handling:** |  |
|  | Spilled substance increases risk of slipping. |  |
|  | **Precautions against fire and explosion:** |  |
|  | No special precautions against fire and explosion required. |  |
| **7.2** | **Conditions for safe storage, including any incompatibilities** |  |
|  | **Conditions for storage rooms and vessels:** |  |
|  | Protect against frost. |  |
|  | **Advice for storage of incompatible materials:** |  |
|  | not applicable . |  |
|  | **Further information for storage:** |  |
|  | not applicable . |  |
|  | **Minimum temperature allowed during storage and transportation:** 0 °C |  |
| **7.3** | **Specific end use(s)** |  |
|  | No data available. |  |
|  | |  |
| **SECTION 8: Exposure controls/personal protection** | | 8. |
| **8.1** | **Control parameters** |  |
|  | **Maximum airborne concentrations at the workplace:** |  |
|  | not applicable |  |
| **8.2** | **Exposure controls** |  |
| **8.2.1** | **Exposure in the work place limited and controlled** |  |

**General protection and hygiene measures:**

Do not eat or drink when handling.

**Personal protection equipment:**

**Respiratory protection**

No personal respiratory protective equipment normally required.

**Eye protection**

protective goggles .

**Hand protection**

Use of protective gloves is recommended when handling the material.

For the choice of suitable gloves, workplace conditions have to be considered, like e.g. handling of other substances and materials.

Recommended glove types: Rubber gloves

**Skin protection**

not required .

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|  |  |  | | | |  |  |
| **8.2.2** | | **Exposure to the environment limited and controlled** | | | |  |  |
|  |  | Prevent material from entering surface waters and soil. | | | |  |  |
| **8.3** | | **Further information for system design and engineering measures** | | | |  |  |
|  |  | No special measures required. |  |  |  |  |  |
|  |  | | | |  |  |  |
|  | **SECTION 9: Physical and chemical properties** | | | |  | 9. |  |
| **9.1** | | **Information on basic physical and chemical properties** | | | |  |  |
|  |  | **Property:** |  |  | **Value:** | **Method:** | |
|  |  | **Appearance** |  |  |  |  |  |
|  |  | Physical state ....................................................... |  | : | liquid |  |  |
|  |  | Colour ................................................................... | | : | white |  |  |
|  |  | **Odour** |  |  |  |  |  |
|  |  | Odour ................................................................... | | : weak | |  |  |
|  |  | **Odour limit** |  |  |  |  |  |
|  |  | Odour limit ............................................................ | | : | no data available |  |  |
|  |  | **pH-Value** |  |  |  |  |  |
|  |  | pH-Value .............................................................. | | : | 4,0 - 6,0 | (specific method) | |
|  |  | **Melting point/freezing point** |  |  |  |  |  |
|  |  | Melting point / melting range ................................ |  | : | ca. 0 °C at 1013 hPa | (Lit.) | |
|  |  | **Initial boiling point and boiling range** | |  |  |  |  |
|  |  | Boiling point / boiling range .................................. |  | : | ca. 100 °C at 1013 hPa |  |  |
|  |  | **Flash point** |  |  |  |  |  |
|  |  | Flash point ............................................................ | | : | not applicable |  |  |
|  |  | **Evaporation rate** |  |  |  |  |  |
|  |  | Evaporation rate ................................................... | | : | no data available |  |  |
|  |  | **Upper/lower flammability or explosive limits** | |  |  |  |  |
|  |  | Lower explosion limit (LEL) .................................. | | : | not applicable |  |  |
|  |  | **Vapour pressure** |  |  |  |  |  |
|  |  | Vapour pressure ................................................... | | : | 23 hPa / 20 °C |  |  |
|  |  | **Solubility(ies)** |  |  |  |  |  |
|  |  | Water solubility / miscibility ................................... | | : | moderately soluble |  |  |
|  |  | **Vapour density** |  |  |  |  |  |
|  |  | Relative gas/vapour density ................................. | | : | No data known. |  |  |
|  |  | **Relative Density** |  |  |  |  |  |
|  |  | Relative Density ................................................... |  | : | ca. 1,07 (20 °C) | (DIN EN ISO 2811- | |
|  |  |  |  |  | (Water / 4 °C = 1,00) | 4) |  |
|  |  | Density ................................................................. | | : | ca. 1,07 g/cm³ (20 °C) | (DIN EN ISO 2811- | |
|  |  |  |  |  |  | 4) |  |
|  |  | **Partition coefficient: n-octanol/water** | |  |  |  |  |
|  |  | Partition coefficient: n-octanol/water ..................... | | : | No data known. |  |  |
|  |  | **Auto-ignition temperature** |  |  |  |  |  |
|  |  | Ignition temperature ............................................. | | : | not applicable |  |  |
|  |  | **Viscosity** |  |  |  |  |  |
|  |  | Viscosity (dynamic) .............................................. | | : | 1900 - 2800 mPa.s at 25 °C | (specific method) | |
|  |  | **Molecular mass** |  |  |  |  |  |
|  |  | Molecular mass .................................................... | | : | not applicable |  |  |
| **9.2** | | **Other information** |  |  |  |  |  |
|  |  | No data available. |  |  |  |  |  |
|  |  | | |  |  |  |  |
|  | **SECTION 10: Stability and reactivity** | | |  |  | 10. |  |
|  | **10.1 – 10.3 Reactivity; Chemical stability; Possibility of hazardous reactions** | | | | |  |  |

If stored and handled in accordance with standard industrial practices no hazardous reactions are known.

Relevant information can possibly be found in other parts of this section.

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| --- | --- | --- | --- | --- | --- |
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|  |  |  |  |  |  |
| **10.4** | | **Conditions to avoid** |  |  |  |
|  |  | none known . |  |  |  |
| **10.5** | | **Incompatible materials** |  |  |  |
|  |  | none known . |  |  |  |
| **10.6** | | **Hazardous decomposition products** | |  |  |
|  |  | If stored and handled properly: none known . At increased temperature: acetic acid . | |  |  |
|  |  | | |  |  |
|  | **SECTION 11: Toxicological information** | | | 11. |  |
| **11.1** | | **Information on toxicological effects** | |  |  |

**11.1.1** **Acute toxicity**

**Assessment:**

Based on the available data acute toxic effects are not expected after single oral exposure.

**Product details:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Route of exposure | Result/Effect | Species/Test system | Source |
|  | Oral | LD50: > 2000 mg/kg | Rat | Conclusion by |
|  |  |  |  | analogy |
|  |  |  |  | OECD 423 |
| **11.1.2 Skin corrosion/irritation** | | |  |  |
|  | **Assessment:** |  |  |  |

Based on the available data a clinically relevant skin irritation hazard is not expected.

**Product details:**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Result/Effect | Species/Test system | Source |
|  | not irritating | Rabbit | Conclusion by |
|  |  |  | analogy |
|  |  |  | OECD 404 |
| **11.1.3 Serious eye damage / eye irritation** | |  |  |
|  | **Assessment:** |  |  |

Based on the available data a clinically relevant eye irritation hazard is not expected.

**Product details:**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Result/Effect | Species/Test system | Source |
|  | not irritating | Rabbit | Conclusion by |
|  |  |  | analogy |
|  |  |  | OECD 405 |
| **11.1.4 Respiratory or skin sensitization** | |  |  |
|  | **Assessment:** |  |  |

Based on the available data a sensitization reaction is not expected from this product.

**11.1.5** **Germ cell mutagenicity**

**Assessment:**

Based on known data a significant mutagenic potential may be excluded.

**Product details:**

|  |  |  |
| --- | --- | --- |
| Result/Effect | Species/Test system | Source |
| negative | mutation assay (in vitro) | Conclusion by |
|  | bacterial cells | analogy |
|  |  | OECD 471 |
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|  |  |  |
| **11.1.6 Carcinogenicity** |  |  |
| **Assessment:** |  |  |

For this endpoint no toxicological test data is available for the whole product.

**11.1.7 Reproductive toxicity**

**Assessment:**

For this endpoint no toxicological test data is available for the whole product.

**11.1.8** **Specific target organ toxicity (single exposure)**

**Assessment:**

For this endpoint no toxicological test data is available for the whole product.

**11.1.9** **Specific target organ toxicity (repeated exposure)**

**Assessment:**

For this endpoint no toxicological test data is available for the whole product.

**11.1.10 Aspiration hazard**

**Assessment:**

Based on the physical-chemical properties of the product no aspiration hazard must be expected.

**11.1.11 Further toxicological information**

No information on damage to health during manufacture and use.

|  |  |
| --- | --- |
| **SECTION 12: Ecological information** | 12. |

**12.1** **Toxicity**

**Assessment:**

No expected damaging effects to aquatic organisms. According to current knowledge adverse effects on water purification plants are not expected.

**Product details:**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Result/Effect | Species/Test system | Source |
|  | LC50: > 100 mg/l | rainbow trout (Oncorhynchus mykiss) (96 h) | Conclusion by |
|  |  |  | analogy |
|  |  |  | OECD 203 |
|  | EC50: > 1000 mg/l | Daphnia magna (48 h) | Conclusion by |
|  |  |  | analogy |
|  |  |  | OECD 202 |
|  | EC10: > 1000 mg/l | sludge (0,5 h) | Conclusion by |
|  |  |  | analogy |
| **12.2 Persistence and degradability** | |  |  |
|  | **Assessment:** |  |  |

Polymer component: Not readily biodegradable. Elimination by adsorption to activated sludge. Separation by flocculation is possible.

**12.3** **Bioaccumulative potential**

**Assessment:**

No adverse effects expected.

**12.4** **Mobility in soil**

**Assessment:**

No adverse effects expected.

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**12.5** **Results of PBT and vPvB assessment**

No data available.

**12.6** **Other adverse effects**

none known

**12.7** **Additional information**

According to present knowledge no adverse influence to environment expected.

|  |  |
| --- | --- |
| **SECTION 13: Disposal considerations** | 13. |

**13.1** **Waste treatment methods**

**13.1.1** **Material**

Recommendation:

Dispose of according to regulations by incineration in a special waste incinerator. Small quantities may be disposed of by incineration in an approved facility. Observe local/state/federal regulations.

**13.1.2** **Uncleaned packaging**

Recommendation:

Completely discharge containers (no tear drops, no powder rest, scraped carefully). Containers may be recycled or re-used.

Observe local/state/federal regulations.

Recommended cleaning agent:

water

|  |  |  |
| --- | --- | --- |
| **SECTION 14: Transport information** |  | 14. |
| **14.1 – 14.4 UN number; UN proper shipping name; Transport hazard class(es); Packing group** | | |
| **Road ADR:** |  |  |
| Valuation ................................................ | : | Not regulated for transport |
| **Railway RID:** |  |  |
| Valuation ................................................ | : | Not regulated for transport |
| **Transport by sea IMDG-Code:** |  |  |
| Valuation ................................................ | : | Not regulated for transport |
| **Air transport ICAO-TI/IATA-DGR:** |  |  |
| Valuation ................................................ | : | Not regulated for transport |

**14.5** **Environmental hazards**

Hazardous to the environment: no

**14.6** **Special precautions for user**

Relevant information in other sections has to be considered.

**14.7** **Transport in bulk according to Annex II of MARPOL and the IBC Code**

Bulk transport in tankers is not intended.

|  |  |
| --- | --- |
| **SECTION 15: Regulatory information** | 15. |

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

National and local regulations must be observed.

For information on labelling please refer to section 2 of this document.

**Group Standard**

|  |  |
| --- | --- |
| HSNO Approval Number | Title |
| not applicable | This material is not classified as hazardous according to the New Zealand GHS criteria. Hence a |
|  | Group Standard is not required. |
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**15.2** **Details of international registration status**

Relevant information about individual substance inventories, where available, is given below.

Japan .......................................................... :

Australia ...................................................... :

China ........................................................... :

Canada ....................................................... :

Philippines ................................................... :

United States of America (USA) .................. :

Taiwan ........................................................ :

European Economic Area (EEA) ................. :

South Korea (Republic of Korea) ................ :

**ENCS** (Handbook of Existing and New Chemical Substances):

This product is listed in, or complies with, the substance inventory.

**AICS** (Australian Inventory of Chemical Substances):

This product is listed in, or complies with, the substance inventory.

**IECSC** (Inventory of Existing Chemical Substances in China):

This product is listed in, or complies with, the substance inventory.

**DSL** (Domestic Substance List):

This product is listed in, or complies with, the substance inventory.

**PICCS** (Philippine Inventory of Chemicals and Chemical Substances):

This product is listed in, or complies with, the substance inventory.

**TSCA** (Toxic Substance Control Act Chemical Substance Inventory):

All components of this product are listed as active or are in compliance with the

substance inventory.

**TCSI** (Taiwan Chemical Substance Inventory):

This product is listed in, or complies with, the substance inventory. General note:

The Taiwanese chemicals regulation requires a phase 1 registration for TCSI-listed

or TCSI-compliant substances if imports to Taiwan or manufacturing in Taiwan

exceed the trigger quantity of 100 kg/a (for mixtures to be calculated per each

ingredient). It is the duty of the importing/manufacturing legal entity to take care of

this obligation.

**REACH** (Regulation (EC) No 1907/2006):

General note: the registration obligations for substances imported into the EEA or

manufactured within the EEA by the supplier mentioned in section 1 are fulfilled by

the said supplier. The registration obligations for substances imported into the EEA

by customers or other downstream users must be fulfilled by the latter.

**AREC** (Act on Registration and Evaluation of Chemicals; “K-REACH”):

General note: in case of registration obligations for substances or polymers

imported into Korea or manufactured within Korea these are fulfilled by the supplier

mentioned in section 1. The registration obligations for substances or polymers

imported into Korea by customers or other downstream users must be fulfilled by

the latter.

|  |  |
| --- | --- |
| **SECTION 16: Other information** | 16. |
| **16.1 Material** |  |

The details in this document are based on the state of our knowledge at the time of revision. They do not constitute an assurance of the described product properties in terms of statutory warranty requirements.

The providing of this document to a recipient does not relieve the recipient of his or her responsibility toward compliance with all laws and stipulations applicable to the product. This applies in particular to the further sale or distribution of the product or substances or items containing the product, in other jurisdictions and with regard to the protection of third-party intellectual property rights. If the described product is processed or mixed with other substances or materials, the details stated in this document cannot be conferred to the resultant new product unless this has been expressly mentioned. If the product is repackaged, the recipient is obligated to additionally provide the required safety-related information.

**16.2** **Further information:**

Commas appearing in numerical data denote a decimal point. Vertical lines in the left-hand margin indicate changes compared with the previous version. This version supersedes all previous versions.

**- End of Safety Data Sheet -**

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