

## SAFETY DATA SHEET

### 1. IDENTIFICATION THE SUBSTANCE / PREPARATION OF THE COMPANY / UNDERTAKING

Product Name: **Denka Cosmic RD-M**  
 Application: Quick hardening cementitious grout for semi-rigid pavement  
 Company: Denka Construction Solutions Malaysia Sdn Bhd  
 Address: No. 18, Jalan Utas 15/7, Seksyen 15, 40200 Shah Alam, Selangor, Malaysia  
 Telephone: 03 – 55108810 Fax: 03 – 55100708

### 2. HAZARD IDENTIFICATION

#### A. Hazard Risk Classification

- Health Hazard
 

|   |               |
|---|---------------|
| Skin Corrosion / Irritation             | : Category 2  |
| Skin Sensitization                      | : Category 1  |
| Serious Eye Damage / Eye Irritation     | : Category 1  |
| Carcinogenicity                         | : Category 1A |
| Specific target organ / System toxicity | : Category 3  |

#### B. Label elements including precaution statements.

- Symbol:



- Signal word: Warning
- Hazard Risk Statement
 

|      |                                     |
|------|-------------------------------------|
| H315 | Cause skin irritation.              |
| H317 | May cause an allergic skin reaction |
| H319 | Causes serious eye irritation.      |
| H350 | Fear of carcinogenicity             |
| H335 | May cause respiratory irritation    |
- Precautionary Statement (Prevention)
 

|             |  |
|-------------|--|
| P201        | Obtain special instruction before use.                                     |
| P202        | Do not handle until all safety precautions have been read and understood.  |
| P280        | Wear protective gloves/protective clothing/eye protection/face protection. |
| P332 + P313 | If skin irritation occurs. Get medical advice / attention.                 |
| P362        | Take off contaminated clothing and wash before reuse.                      |

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

| Ingredients         | Cas Number | %         |
|---------------------|------------|-----------|
| Cement (OPC)        | 65997-15-1 | 72 ~ 80   |
| Silica Fume         | 69012-64-2 | 1 ~ 10    |
| Silicon Dioxide     | 7631-86-9  | 1 ~ 10    |
| Polycarboxylic Acid | 62601-60-9 | 0.1 ~ 0.5 |
| Gypsum              | 7778-18-9  | 5 ~ 10    |

All constituents of this product are listed in EINECS (European Inventory of Existing Commercial Chemical Substances) or EILINCS (European List of New Chemical Substances) or are exempt.  
Refer to Section 8 for Occupational Exposure Limits.

### 4. FIRST AID MEASURES

|             |  |
|-------------|--|
| Eyes:       | Irrigate immediately with copious of quantity of water for several times. Obtain medical attention urgently.                                 |
| Skin:       | Wash thoroughly with copious quantities of water. Remove contaminated clothing immediately. Obtain medical advice if skin disorders develop. |
| Inhalation: | Remove from exposure, rest and keep warm and obtain medical attention urgently.  |
| Ingestion:  | Wash out mouth with water. Do NOT induce vomiting. Obtain medical attention.   |

### 5. FIRE FIGHTING MEASURES

|                               |  |
|-------------------------------|--|
| Suitable Extinguishing Media: | None, not flammable.   |
| Special Exposure Hazards:     | None.  |
| Special Protective Equipment: | In event of fire, wear self-contained breathing apparatus for firefighters |

### 6. ACCIDENTAL RELEASE MEASURES

|                             |   |
|-----------------------------|---|
| Personal Precautions:       | Wear rubber boots in addition to the recommended protective clothing.   |
| Environmental Precautions:  | Prevent entry into drain, sewers and water courses.   |
| Decontamination Procedures: | Avoid the creation of dust in atmosphere. Gather into containers.<br>Residue may be flushed to drain with large volumes of water. Prior consent must be obtained from local Water Company if discharged into sewer. |

### 7. HANDLING AND STORAGE

|           |  |
|-----------|--|
| Handling: | Avoid breathing dust. In case of sufficient ventilation, wear suitable respiratory equipment.<br>Avoid skin and eye contact. |
| Storage:  | Store in cool, dry area.   |

## 8. EXPOSURE CONTROL / PERSONAL PROTECTION

|                                |   |
|--------------------------------|---|
| Engineering Control Measures:  | Provide ventilation and local dust collection in the place where ventilation is insufficient such as indoor place, etc.<br>Provide eye wash facilities and safety shower near the workplace where the product is handled. |
| Personal Protective Equipment: | Imperious gloves (eg PVC). Goggles/safety glasses. Approved dust mask. Wear imperious, chemical resistant boots.  |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|                                |                               |
|--------------------------------|-------------------------------|
| Physical State                 | Granulated Powder             |
| Colour                         | Grey                          |
| Odour                          | Odourless                     |
| pH (working dilution)          | >12                           |
| Melting point / Freezing point | No data                       |
| Boiling Point / Range (°C)     | No data                       |
| Flash Point (closed °C)        | None                          |
| Relative Density (at 20 °C)    | 2.70 ~ 3.00 g/cm <sup>3</sup> |
| Water Solubility               | Hardly soluble in water       |

## 10. STABILITY AND REACTIVITY

|                                   |   |
|-----------------------------------|---|
| Stability:                        | Stable under normal condition                                     |
| Condition to avoid:               | Do not leave in the environment with high humidity for long time. |
| Material to avoid:                | No Data   |
| Hazardous Decomposition Product:  | None.   |
| Possibility of hazardous reaction | Solidified by reacting water                                      |

## 11. TOXICOLOGICAL INFORMATION

|                                     |   |
|-------------------------------------|---|
| Acute Toxicity                      | No data available                             |
| Skin Corrosions / Irritation        | Causes skin irritation                        |
| Serious eye damage / eye irritation | Causes serious eye damage                     |
| Respiratory or skin sensitisation   | May cause an allergic skin reaction           |
| Germ cell mutagenicity              | Not classified based on available information |
| Carcinogenicity                     | Not classified based on available information |
| Reproductive toxicity               | Not classified based on available information |
| STOT – single exposure              | May cause respiratory irritation              |
| STOT – repeated exposure            | Not classified based on available information |
| Aspiration toxicity                 | Not classified based on available information |

## 12. ECOLOGICAL INFORMATION

|                              |  |
|------------------------------|--|
| Environmental Assessment:    | Little detailed information is available on the ecological effects of this product, but its overall environmental impact is not regarded as significant. |
| Mobility:                    | It can move to the air, waters, soil environment based on physio – chemical properties   |
| Persistence & Degradability: | No Data  |
| Bioaccumulated Potential:    | No Data  |
| Ecotoxicity:                 | No Data  |

## 13. DISPOSAL CONSIDERATIONS

|   |   |
|---|---|
| Disposal must be in accordance with local and national legislation. |   |
| Unused Product:   | Dispose of in an approved manner.                                 |
| Used / Contaminated Product:  | As for unused product.  |
| Packaging:  | The method of disposal must be acceptable to the local authority. |

## 14. TRANSPORT INFORMATION

|                      |                  |
|----------------------|------------------|
| UN number            | : Not applicable |
| Proper Shipping name | : Not applicable |
| UN class             | : Not applicable |
| Packing group        | : Not applicable |
| Marine pollutant     | : Not applicable |

## 15. REGULATORY INFORMATION

### Hazard Label Data

|                        |  |
|------------------------|--|
| Name Ingredients:      | Cement Powders   |
| Symbols (s):           | Xi   |
| Risk Phrases:          | Irritating to eyes, respiratory system and skin.   |
| Safety Phrases:        | Do not breathe dust. Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.<br>After contact with skin, wash immediately with plenty of soap and water. |
| EC Directives:         | Dangerous Preparation Directive, 88/379/EEC<br>Dangerous Substance Directive, 67/548/EEC and adaptations<br>Safety Data Sheet Directive, 91/155/EEC  |
| Statutory Instruments: | Chemical (Hazard Information and Packaging for Supply) (Amendment) Regs. 1996 (SI 1092)  |
| Codes of Practice:     | Waste Management. The Duty of Care.  |
| Guidance Notes:        | Occupational skin disease : health and safety precautions (EH26)<br>Dust in workplace: General principles of protection. (EH 44)<br>Occupational Exposure Limits (EH40)  |

The above publications are available from HMSO.

## 16. OTHER INFORMATION

The data and advice given apply when the product is used for the stated application or applications. The product is not sold as suitable for any other application. Use of the product for applications other than as stated in this sheet may give rise to risks not mentioned in this sheet. The product should not be used than for the stated application or applications without seeking advice from Denka Construction Solutions Malaysia Sdn Bhd.

If this product has been purchased to a third party for use at work, it is the purchaser's duty to take all necessary steps to secure that any person handling or using the product is provided with information in this sheet. It is the responsibility and duty of the employer to inform employees and others who may be affected of any hazards described to this sheet and of any precautions which should be taken. This sheet does not constitute or substitute for the users own assessment of workplace risk, as required by other health and safety legislation.

**SDS :** Denka Cosmic RD-M  
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