



DAIKEN CORPORATION (S98FC5543C)
SINGAPORE BRANCH
100 Beach Road, #13-01/02
Shaw Tower, Singapore 189702
Tel: (65) 6297-1933 Fax: (65) 6297-1363

(1/5)

Product group name : EXCEL-TONE MR

Creation date: March 20, 1999

Reference No.

Revision date: April 20, 2011

MATERIAL SAFETY DATA SHEET

[PRODUCT NAME] EXCEL-TONE MR

SECTION 1 CHEMICAL PRODUCTS AND COMPANY IDENTIFICATION

[PRODUCT NAME] EXCEL-TONE MR

[GENERAL NAME] Rock wool acoustical ceiling panel

[PRODUCT OUTLINE] This product uses rock wool as the main materials, is fabricated using binder and mixture material, and carries out surface makeup of the shape of a travertine pattern and un-penetrating, the shape of unevenness, those combination, etc.

In addition, "rock wool" uses rock, such as blast furnace slag, silica stone, and basalt, as the main materials, and means the artificial mineral fiber manufactured by melting these and fiber-izing.

[COMPANY IDENTIFICATION]

Company name: Okayama Daiken Corporation

Address: 5-8, Kaigandori 2-chome, Minami-ku, Okayama-shi, Okayama, 702-8045, Japan

Section: Guarantee-of-quality division

Telephone 086-262-1130

Facsimile 086-262-4596

SECTION 2 COMPOSITION AND INGREDIENT INFORMATION

[SINGLE PRODUCT OR MIXTURE]

Mixture; Rock wool 60%, Inorganic Filler 23%, Organic Material 17%

[APPROVAL NUMBER] Rock wool : NIL

[CAS REGISTRY NUMBER]

Rock wool : NIL

SECTION 3 HAZARDS IDENTIFICATION

[HAZARD] Nothing special.

[DETRIMENTAL NATURE]

A stimulus may be received when an eye, the skin, etc. are touched.

When a coarse particulate is inhaled so much over a long period of time, there is a possibility of producing the influence on respiratory organs.

[ENVIRONMENTAL EFFECTS]

There is no information that it has the influence affect environment.

Product group name : EXCEL-TONE MR

Reference No. TKXX-001-OK

SECTION 4 FIRST-AID MEASURES

[WHEN GETTING INTO EYES]

Clean water washes until a feeling of a foreign substance is lost. Don't rub an eye.

[WHEN ATTACHED TO THE SKIN]

Soapsuds wash the adhering portion and it washes away with a little hotter hot water. When change is looked at by appearance or an ache follows it, a doctor's allowance is received immediately.

SECTION 5 FIRE-FIGHTING MEASURE

[FIRE-EXTINGUISHING AGENT]

A lot of water, powder, carbon dioxide, bubbles.

[SPECIFIC HAZARDS AND DETRIMENTAL NATURE]

Since this product is noncombustible material authorized by Ministry of Land, Infrastructure and Transport, there is especially no measure in case of a fire. However, since the binder contained for this product may cause pyrolysis and detrimental gas may be generated when this product is exposed to high temperature, escape to the windward as much as possible not to inhale them in case of a fire.

SECTION 6 ACCIDENTAL RELEASE MEASURE

[NOTES TO A HUMAN BODY]

Since it is the shape of a board, there is especially no measure at the time of leakage.

[NOTES TO ENVIRONMENT]

Since it is the shape of a board, there is especially no measure at the time of leakage.

SECTION 7 HANDLING AND STORAGE

[HANDLING]

Unless cutting etc. is processed, there is not a special instruction for handling. Follow the following notes, when you process cutting etc.

1. Manual tools, such as a cutter knife, perform cutting.
2. A protection-against-dust mask is worn on the occasion of handling, and the partial exhaust and a dusting machine are installed if needed.
3. The working clothes of a long sleeve and the protection glove are worn.
4. Gargling and washing hand are enforced strictly after handling.

[STORAGE]

Although there is no problem related safely, it considers getting wet in water as strict prohibition about quality maintenance, and considers as inside-of-a-house storage of normal temperature and normal humidity.

Product group name : EXCEL-TONE MR

Reference No. TKXX-001-OK

SECTION 8 EXPOSURE PREVENTION AND A PROTECTION MEASURE (Measure as rock wool)

[MANAGEMENT CONCENTRATION]

Inhaling coarse particulate; 2.9mg/m³ (As 0% of free silicic acid of a mineral coarse particulate)

[PERMISSION CONCENTRATION]

Japan Society for Occupational Health (2001); No setup.

ACGIH (2001); 1f/cm³

(The fiber with a length of 5μm or more, a diameter of 3μm or less, and aspect ratio (length /diameter) of 3 or more.

[PROTECTION IMPLEMENT]

- | | |
|-----------------------------|--|
| Dust mask | When there is a possibility that the concentration in work environment may exceed the above-mentioned standard, a dust mask is worn.

The form of a dust mask has the replacement formula dust mask, and a disposable formula dust mask of national official approval. When concentration is high, a replacement formula dust mask is encouraged, and when concentration is comparatively low, a disposable formula dust mask is encouraged.

Anyway, especially the state of adhesion to the face is cared about, and maintenance management of check of a filter, exchange, etc. is performed appropriately. |
| Protection glasses | The protection implement suitable for work, such as goggles and protection glasses with a side shield, is used if needed. |
| A glove and working clothes | The thing suitable for work, such as working clothes of a glove and a long sleeve, is used, so as not to expose the skin. |

SECTION 9 PHYSICAL AND CHEMICAL PROPERTY

- | | |
|------------------|--------------------------------|
| [PHYSICAL STATE] | The shape of a board. |
| [COLOR] | White. |
| [SMELL] | Nothing special. |
| [DENSITY] | 500kg/ m ³ or less. |

SECTION 10 STABILITY AND REACTIVITY

It is stable. Alkali resistant but weak against acid.

Product group name : EXCEL-TONE MR

Reference No. TKXX-001-OK

SECTION 11 DETRIMENTAL NATURE INFORMATION (Information as rock wool)

- [ACUTE ACTION] When getting into eyes : There is a physical stimulus action.
 When attached to the skin : Although itchiness and red spots may be produced, a transient chronic obstacle is not produced.
- [PARTIAL EFFECT] Unknown.
- [CHRONIC ACTION] Since an inhalation nature fiber is contained in the generated coarse particulate, if it inhales in large quantities over a long period of time, a possibility of producing a respiratory disease (pneumoconiosis) may be caused. However, in present, it is not reported in the handling of rock wool that the obstacle resulting from this occurred.
- [CARCINOGENIC] Simultaneously with glass wool, rock wool corresponds to a group 3 (carcinogenic cannot be classified ; The proof to humans is inadequate. The proof over an animal is limited.) by IARC (International Agency for Research on Cancer).
 Rock wool is classified into the category 3 (: which may have carcinogenic -- this category is determined by the chemistry ingredient) according to EC like glass wool.

SECTION 12 ECOLOGICAL INFLUENCE INFORMATION

Now, there is no research paper to the environmental influence about this product. In addition, for this product, the substance called endocrine disruption random substance, so-called environmental hormones is not contained.

SECTION 13 DISPOSAL CONSIDERATION

When discarding, it needs care that a coarse particulate does not disperse in circumference environment. In addition, the waste generated from rock wool product corresponds to the "glass waste, and pottery waste and concrete waste" based on Wastes Disposal and Public Cleaning Law, is dealt with as usual industrial waste, and does not interfere.

SECTION 14 TRANSPORT INFORMATION

[INFORMATION ABOUT THE LAW RELATED TO TRANSPORTATION]

Nothing special.

[THE SPECIFIC SAFETY MEASURES AND CONDITIONS OF TRANSPORTATION]

Although it is safe, it needs care that a coarse particulate does not disperse by breakage of packing under transportation etc.

Product group name : EXCEL-TONE MR

Reference No. TKXX-001-OK

SECTION 15 REGULATORY INFORMATION

Rock wool corresponds to a "mineral" in Pneumoconiosis Law, and coarse particulate obstacle prevention rule, and when doing the following work, it receives application of Pneumoconiosis Law, and Coarse particulate obstacle prevention rule.

1. Work in the place where cuts out, carves or finishes up a mineral (this product). (No. 6 of Coarse particulate obstacle prevention rule attached table 1)
2. Work in the place which , grinds it, or sifts it out crushes a mineral (this product) with power. (No. 8 of the coarse particulate rule attached table 1)

In addition, since the "The indicator about the labor health of glass fiber and rock wool" is shown by the from Ministry of Labor notification No. 1 on January 1, 1993 and the "The manual about the safe health of rock wool" was created based on this, observe these contents.

Although rock wool is the quality of an application subject "issue of a document" on Article 57-2 of labor security and hygiene law, it does not serve as the quality of an application subject of "the law about promotion of an improvement of managements, such as grasp of the amount of discharge to the environment of a specific chemistry substance,."

SECTION 16 OTHER INFORMATION

[REFERENCE]

- 1) IARC : Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans Vol. 43 (1988), "Man-made fibers, mineral fibers and radon"
- 2) Glassfiber Association of Japan, Ceramic fiber Industries Association , and Rock Wool Industrial Association of Japan : The number concentration of man-made mineral fiber (MMMF) measurement manual (1993)
- 3) Glassfiber Association of Japan, and Rock Wool Industrial Association of Japan : The Industrial Safety and Health Department chemical substances investigation division, the Ministry of Labor editorial supervision, Description of the indicator about the labor health of glass fiber and rock wool (1993)
- 4) Rock Wool Industrial Association of Japan : The manual about the safe health of rock wool (1993)
- 5) Glassfiber Association of Japan, and Rock Wool Industrial Association of Japan : The man-made mineral fiber concentration measurement manual in a construction site etc. (1995)
- 6) Japan Industrial Safety and Health Association : substitute fiber for asbestos and influence on the living body (1996)
- 7) Rock Wool Industrial Association of Japan : The characteristic and handling of a rock wool product (1998)
- 8) ILO : Code of practice on safety in the use of synthetic vitreous fiber insulation wools (glass wool, rock wool, slag wool) (2000)
- 9) ACGIH : TLVs and BELs (2001)
- 10) LARC press releases : LARC Monochrome graph program, revaluation of the carcinogenic risk by the floating artificial amorphous fiber (2001.10.24)

This information in this MSDS may be revised based on new knowledge. Information, such as content, and physics / chemical character, is not guarantee values among written contents. Although evaluation of danger and detrimental nature was created based on the material, data, etc. which may come to hand at present, it did not cover all data.