

SAFETY DATA SHEET

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

Product Name: **ESTOGROUT MP90**
Application: Cementitious grout
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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
 - Specific target organ/Systemic toxicity : Category 3

B. Label elements including precaution statements.

- Symbol:



- Signal word: Danger
- Hazard Risk Statement
 - H315 Skin corrosion/irritation.
 - H317 May cause an allergic skin reaction
 - H318 Causes serious eye damage.
 - H335 May cause respiratory irritation
- Precautionary Statement (Prevention)
 - P260 Do not breathe dust / mist
 - P264 Wash hand thoroughly after handling
 - P271 Use only outdoor or in a well ventilated area.
 - P280 Wear protective gloves/protective clothing/eye protection/face protection.
Contaminated work clothing should not be allowed out of the workplace

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P304 + P340 IF INHALED : Remove person to fresh air and keep comfortable for breathing

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF SWALLOWED : Call a doctor if you feel unwell

- Storage

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

- Disposal

Dispose of contents/container in accordance with relevant laws and local regulation.

C. Other hazards which do not result in GHS classification :

- If it comes into contact with water, it generates calcium hydroxide and becomes alkaline (pH 11~13). Since it is irritating to eyes, nose, skin, it can cause inflammation in mucous membrane of eyes, internal tissues of nose, skin. If swallowed, it is irritating to throat.

D. Important signs: None

E. Expected emergency overview :

- If discharged into water at high concentration, it can be assumed that it is hazardous to the aquatic life. (Increase in hydroxide ion concentration [pH])

F. National/local information : None

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients	Cas Number	%
Cement (OPC)	65997-15-1	30 - 50
Calcium Aluminate Sulfate	12005-25-3	< 3
Silica Fume	69012-64-2	2 - 8
Silica sand	14808-60-7	40 - 60

- There is a possibility that calcium oxide (maximum of 2%) would be contained in Portland cement.
- Industrial Safety and Health Act : Article 57-2 of the Act, paragraph 1 (Notifiable substances no.190 Calcium oxide)

Chemical formula: CaO Chemical Substances Control Law No.:1-189 CAS No.:1305-78-8 [PRTR Act: Not applicable] [Industrial Safety and Health Act: Calcium oxide] [Poisonous and Deleterious Substances Control Act: Not applicable]

4. FIRST AID MEASURES

Eyes:	Rinse eyes with clean water for at least 15 minutes and immediately get medical attention from an ophthalmologist. Hold eyelids open and away from eyeballs with fingers to ensure that all surfaces are flushed Thoroughly. Remove contact lenses, if present and easy to do and rinse eyes.
Skin:	Remove/Take off immediately all contaminated clothing. Rinse skin with running water/shower. Wash with plenty of clean water and soap. Wash contaminated clothing before reuse.
Inhalation:	Remove victim to fresh air and keep at rest. Immediately get medical attention. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a doctor
Swallowed:	Rinse mouth Rinse mouth with clean water and give 1-2 glasses of clean water or milk Immediately get medical attention Don't induce vomiting Never give anything by mouth to an unconscious person If skin irritation or rash occurs, get medical advice/attention

Most important sign and symptom : Not specified

Protection for first-aiders:

- Wear protective equipment such as rubber gloves and fully enclosed goggles, etc.

Special note to physician : Not specified

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: The product itself doesn't burn.

Unsuitable extinguishing media : Not specified

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Make sure to wear protective equipment such as protective gloves, long boots, safety glasses, dust mask, etc. during work. When spilled in large quantities, evacuate personnel safely.
Environmental Precautions:	Do not discharge into rivers or sewers directly.
Method for containment and clean-up:	Shovel or sweep the leakage and collect into empty container such as bag, etc.

7. HANDLING AND STORAGE

Handling :

1 Technical measure :

- Use in a well-ventilated area.
- Provide sufficient ventilation in a workplace.
- Provide eye wash facilities and safety shower for emergency near the workplace where the product is handled.
- Do not breathe scattered dust.
- For outdoor use, work from windward as far as possible.
- Prohibit unnecessary personnel from entering a handling place.
- Do not get in eyes, on skin, or on clothing.
- Provide bathroom, eye wash facilities, etc. in a breathing place and wash hands, face, etc. thoroughly after handling.
- Do not bring contaminated protective equipment such as gloves, etc. into resting place.
- Do not eat, drink or smoke except at designated area.
- Wear protective equipment (Protective gloves, long boots, safety glasses, dust masks, etc) to avoid prolonged or repeated contact with skin, etc.
- Wash hands and face thoroughly and gargle after handling.

2 Local exhaust • general ventilation :

- For handling, provide local exhaust or general ventilation as much as possible.

3 Precaution :

- Handle with care to prevent generation of dust.
- Wash face, hands, mouth, etc. thoroughly after handling. Wash contaminated clothing before reuse. Do not handle in a violent manner to prevent a bag from getting torn, etc.
- If it is transferred as a flexible container by hanging, never stay under it.

4 Precaution for safe handling :

- Since it is alkaline, avoid contact with acidic products (Hydrochloric acid, sulfuric acid, nitric acid, etc.)

Storage :

1 Proper storage condition :

- Avoid direct sunlight, water leak, humidity, heat to prevent decomposition. Store at room temperature.
- Do not store with acidic materials in the same place.
- Store locked up.
- Keep container tightly closed. Store in a well-ventilated place.

2 Safe container and packaging material : Bags or containers that can be sealable for moisture proof

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering controls :

- Provide ventilation and local dust collection in the place where ventilation is insufficient such as indoor place, etc.
- Provide eye wash facilities and safety shower near the workplace where the product is handled.

Controlled exposure level :

- Industrial Safety and Health Act • Evaluation Standard on Working Environment 2.9 mg/m³
- Put labels on containers, etc. which are handled by workers.

Permissible exposure level :

- Portland cement
 - The Japan Society for Occupational Health (2014 edition) :

Type II dust	1 [mg/m ³] (Respirable dust)
	4 [mg/m ³] (Total dust)
 - OSHA PEL : General Industry :50[mppcf] TWA (Respirable Fraction)
 - ACGIH (2010 edition) : TLV: 1[mg/m³] TWA

Personal protective equipment :

1. Respiratory protection : Dust mask <T 8151>, handy dust mask
2. Hand protection : Protective gloves made of rubber (Please do not use natural rubber gloves in case of having latex allergy.)
3. Eye protection : Safety glasses <T 8147> (Fully enclosed goggles)
4. Skin and body protection : Protective clothing (long-sleeves), safety boots (Rubber long boots)

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	
Physical state	Powder
Color	Gray
Odor	Odorless
pH	11~13 in contact with water
Melting point/freezing point	No data
Boiling point, initial boiling point and boiling range	No data
Flash point	Not relevant
Auto-ignition temperature	No data
Flammability	Nonflammable
Explosive limits	Not relevant
Vapor pressure	Not relevant
Vapor density	Not relevant
Evaporation rate	Not relevant
Specific gravity (Relative density)	2.70~3.20 g/cm ³ (20 °C)
Solubility	Hardly soluble in water
Partition coefficient(n-octanol/water)	No data
Decomposition temperature	No data

10. STABILITY AND REACTIVITY

Stability:	Stable
Condition to avoid	Since it absorbs moisture, do not leave it in the environment with high humidity for long time.
Incompatible material	No data
Possibility of hazardous reactions:	It is solidified by reacting with water
Hazardous decomposition product	it's not generated

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 sensitization	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 hazard	Not classified based on available information
Other data	Be careful since it would have alkaline property by contacting with water

12. ECOLOGICAL INFORMATION

Mobility in soil:	It can move to the air, waters (Water, sediment), soil environment based on physico-chemical properties.
Persistence & Degradability:	No data
Bioaccumulated :	No data
Ecotoxicity:	No data

13. DISPOSAL CONSIDERATIONS

- Dispose of contents/container in accordance with relevant laws and local regulation.
- Dispose of the product (Powder) in accordance with treatment standard for sludge under the Waste Management and Public Cleansing Act. Dispose of hardened objects in accordance with treatment standard for construction wastes under the Waste Management and Public Cleansing Act. Dispose of cleaning water in accordance with the Water Pollution Control Act.
- When disposing the container, similar to residual waste, entrust disposal to industrial waste disposal contractor who have obtained a license from prefectural governor same as residual wastes.
- If outsourcing, entrust disposal to industrial waste disposal contractor who have obtained a license from prefectural governor

14. TRANSPORT INFORMATION

International regulation :

UN number :	Not applicable
Proper shipping name :	Not applicable
UN class :	Not applicable
Packing group :	Not applicable
Marine pollutant :	Not applicable

Japan domestic regulation :

- Inland transport :
 - Fire Service Act : Not applicable
 - Poisonous and Deleterious Substances Control Act : Not applicable
- Sea transport :
 - Ship Safety Act : Not applicable
- Air transport :
 - Civil Aeronautics Act : Not applicable

Specific safety measure and condition of transport :

- Load containers in a way of no overturning, falling, damage and secure prevention of cargo collapse.
- Caution: water leak.

Guideline no. of first-aid measures during emergency : None.

15. REGULATORY INFORMATION

1. Industrial Safety and Health Act :
 - Ordinance on Prevention of Hazards Due to Dust, Article 2 Work generating dust
 - Article 57-2 of the Act, Notifiable substances (Calcium oxide no.190)
2. Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof : Not applicable
3. Poisonous and Deleterious Substances Control Act : Not applicable
4. Fire Service Act : Not applicable
5. Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. (Kashinoh) :
 - General substance applicable to Article 8, Paragraph 1, Item 3
6. Ship Safety Act : Not applicable
7. Civil Aeronautics Act : Not applicable
8. Marine Pollution Prevention Law : Not applicable
9. Refer to "Regulation of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures (CLP)".

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 other than for the stated application or applications without seeking advice from Denka Construction Solutions Malaysia Sdn Bhd.

If this product has been purchased for supply 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 the 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 in 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.

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