



Material Safety Data Sheet

Section 1. Product and Company Identification

- **Product** : Calcium carbonate (Limestone, chemical formula : CaCO_3)
- **Product Uses** : Filler of Paper
- **Trade names** : TK-75F60
- **Manufacture and Supplier**
 - **TaeKyung Ind. Co., Ltd.**
 - Address : 652-12, DungChon-Dong, KangSeo-Ku, Seoul, Korea
 - TEL : (02)3661 - 8011, 8022. FAX : (02)3661 - 7057
 - Factory : San 54-1, DaeMyung-Ri, MunGwang-Myun, GoeSan-Gun, ChungBuk, Korea
 - TEL : (043) 833-2103(4). FAX : (043) 833 - 2105
- **Emergency contact** : 82) 43 - 833 - 2103(4) (Monday-Friday, 08:00 - 18:00)

Section 2. Hazard Identification

2-1. Classification of the substance or mixture : No information available

2-2. GHS label elements, including precautionary statements

- Signal word : Warning
- Hazard statement : No hazard statement
- Pictograms



- Precautionary statement

- Prevention
 - Wear a protective glove and goggle if necessary.
 - Do not ingestion, inhale, drink during use this product.
 - Prevent leakage to surrounding area.

- Response
 - Obtain medical treatment of doctor if you ingestion.
 - Immediately flush the contaminated eye, gently flowing water for 10 minutes holding the eyelid open.
 - If irritation persists, obtain medical advice immediately.
 - Remove it after dry if leaking outside.
- Storage
 - Store in closed containers in a dry place .
 - Separate from incompatible materials.
 - Protect slurry products from freezing.
- Disposal
 - Do dispose of according to the laws if the relevant laws and regulations set forth in.

Section 3. Composition/information on ingredients

Common name	Synonym	CAS No	Content
Calcium carbonate	Calcium carbonate	471-34-1	59.5 – 61.0%
Water	–	7732-18-5	40.5 – 39.0%
Acrylic Acid Polymer	Polyacrylic acid sodium salt	9003-04-7	< 0.2%
Aliphatic Alcohol	polyatomic alcohol	80206-82-2	< 0.1%

Section 4. First-aid Measures

- 4-1. Eye contact**
- . Immediately flush the eyes with plenty of warm water, gently flowing water for at least 10 minutes holding the eyelid open.
 - . Get medical treatment if irritation persists.
- 4-3. Skin contact**
- . Carefully wash the contaminated skin with water.
- (Serious Inhalation)
- . Not available
 - . Remove to fresh air.
- 4-2. Inhalation**
- . Give artificial respiration if not breathing. Give oxygen if breathing is difficult. Obtain medical advice if required.
- (Serious Skin contact)
- . Not available

- 4-4. Ingestion**
- Do not induce vomiting.
 - Never give anything by mouth to an unconscious person.
 - Drink about 300 ml of water to dilute material in stomach.
 - Obtain medical advice immediately.
- (Serious Ingestion)
- Not available

4-5. Most important symptoms / effects, acute and delayed

	<u>Short-term exposure</u>	<u>Long-term exposure</u>
- Eye contact	Stimulus	No information available
- Skin contact	Stimulus	No information available
- Inhalation	Stimulus	No information about serious side effects
- Ingestion	Constipation	No information about serious side effects

4-6. Indication of immediate medical attention and special treatment needed, if necessary

■ Major health risk

: None have been reported about a major impact on the target organs.

Section 5. Fire-fighting measures

5-1. Suitable extinguishing media

- Suitable extinguishing media
- : Do you use extinguishing media for the environment of the fire.
- Suitable extinguishing media : No information available
- Large fire : No information available

5-2. Specific hazards arising from the chemical

- Pyrolysis product : Calcium oxide can be generated by pyrolysis.
- The risk of fire and explosion : will not occur

5-3. Special protective actions for fire-fighters

- To avoid inhalation of smoke when combustion to occur.
- Against the wind and to avoid low ground.

Section 6. Accidental release measures

6-1. Personal precautions, protective equipment and emergency procedures

: No information available

6-2. Environmental precautions

- Atmosphere : No information available
- Earth. : Remove it after the dry if it spilled on packaged ground surface.
- Water : Do not allow to infiltrate into culverts, sewers or waterways.

6-3. Methods and materials for containment cleaning up

- . A small amount of leak
: Remove it after the dry if it spilled on packaged ground surface.
- . The bulk of the leak :
 - Build a fence around leak area to prevent extensive flow.
 - Do the proper collection containers with a pump of high efficiency.
 - Do prevent the occurrence of the 2nd leak from the fence.

Section 7. Handling and storage

7-1. Precautions for safe handling

- . Avoid contact with eye(s) and skin.

7-2. Conditions for safe storage, including any incompatibilities

- . Do comply with all regulations of environmental laws if you want to storage this substance.
- . Do you keep them isolated from acidic substances.

Section 8. Exposure controls/personal protection

8-1. The exposure standard of chemical and biological criteria

- . Domestic Policy : TWA*, 10 mg/m³
- . ACGIH* TLV : Total dust, 10 mg/m³
- . Exposure based on biological : No information available

8-2. Appropriate engineering controls

- . Do check propriety whether exposure criteria.

8-3. Individual protection measures

- . Respiratory protection : Not applicable
- . Eye protection : Wear protective glasses
- . Hand protection : Wear general gloves
- . Body protection : Wear a general fatigue uniform

Section 9. Physical and chemical properties

- | | |
|---|--|
| (a) Appearance | : White slurry |
| (b) Odor | : None |
| (c) Odor threshold | : None |
| (d) pH | : 9.0 – 10.0 |
| (e) Melting/freezing point | : CaCO ₃ (Not applicable) / H ₂ O(F.P : 0℃) |
| (f) Initial boiling point and boiling range | : CaCO ₃ (Not applicable) / H ₂ O (B.P : 100℃) |
| (g) Fresh point | : Will not occur fresh |

(h) Evaporation rate	: CaCO ₃ (Not applicable) / H ₂ O (539 Cal/g)
(i) Flammability(solid, gas)	: Will not occur flammability
(j) Upper/lower flammability or explosive limits	: Will not occur flammability or explosive
(k) Vapour pressure	: CaCO ₃ (Not applicable)/H ₂ O(760 mmHg/100℃)
(l) Solubility	: 10 mg/ℓ
(m) Vapour density	: No information available
(n) Relative density (dry)	: 2.7
Specific gravity(Slurry)	: 1.59~1.61
(o) Partition coefficient : n-octanol/water	: No information available
(p) Auto – ignition temperature	: None
(q) Decomposition temperature	: 898 °C
(r) Viscosity	: 100 cps under (Brook–field viscometer)

Section 10. Stability and reactivity

(a) Chemical stability	: Hazardous Polymerization : Will not occur
(b) Possibility of hazardous reaction	: Stable under the normal temperature and pressure
(c) Conditions to avoid	: No information available
(d) Incompatible material	: Strong acid materials (HCl, H ₂ SO ₄ etc.)
(e) Hazardous decomposition products	: No information available

Section 11. Toxicological information

11-1. Information on the likely of exposure

–. Eye contact	: Stimulus
–. Skin contact	: Stimulus
–. Inhalation	: Stimulus
–. Ingestion	: Constipation

11-2. Symptoms related to the physical, chemical and toxicological characteristics

: No information available

11-3. Delayed and immediate effects and also chronic effects from short and long term exposure

–. Acute Toxicity	: Not Toxic substances
–. Skin corrosion/irritation	: No information available
–. Serious eye damage/irritation	: No information available
–. Respiratory sensitization	: No information available
–. Skin sensitization	: No information available
–. Carcinogenicity	: No information available

- Germ cell multagenicity : No information available
- Reproductive toxicity : No information available
- Target organ systemic toxicity : No information available
- STOT-single exposure : No information available
- Aspiration hazard : No information available

11-4. Numerical measures of toxicity(such as acute toxicity estimates)

: No information available

Section 12. Ecological information

- 12-1. Aquatic and/or terrestrial organisms(fish/crustaceans/algae) : No information available
- 12-2. persistence and degradability : No information available
- 12-3. Bioaccumulative potential : No information available
- 12-4. Mobility in soil : No information available
- 12-5. Another adverse effects : No information available

Section 13. Disposal considerations

- 13-1. Disposal methods : Do comply with regulations of environmental laws.
- 13-2. Notes on disposal (including contaminated containers and packaging methods)
: Do comply with regulations of environmental laws.

Section 14. Transport information

- 14-1. UN Number : Non category information
- 14-2. Un Proper Shipping Name : Not applicable
- 14-3. Tranport hazard class(es) : Not applicable
- 14-4. Packing group (if applicable) : Not applicable
- 14-5. Marine pollutant : Not applicable
- 14-6. Special precautions for user
 - Fire and emergency measures : Not applicable
 - Spill and emergency measures : Not applicable

Section 15. Regulatory information

(a) Domestic regulation

- Regulations by 'Korea Occupational safety health codes' : Not regulations
- Regulations by 'Hazardous chemicals management' : Not regulations
- Regulations by 'Dangerous Goods Safety Management Act' : Not regulations
- Regulations by 'Waste management law' : Not regulations
- Regulations by 'Residual organic pollutants laws' : Not regulations

(b) foreign Regulation

■ American's regulations

- OSHA* : Not applicable
- CERCLA* : Not applicable
- EPCRA* 302 : Not applicable
- EPCRA* 304 : Not applicable
- EPCRA* 313 : Not applicable

■ Another Convention & Protocol

- Rotterdam Convention's(9. Oct.'98) controlled substances : Not applicable
- Stockholm Convention's(22. May.'01)controlled substances : Not applicable
- Montreal Protocol's(17. Sep.'87)controlled substances : Not applicable

■ EU's regulations

- EU classified information (Category results confirmed) : Not applicable
- EU classified information (Risk statement) : Not applicable
- EU classified information (Safety phrases) : Not applicable

Section 16. another information

■ Source of data

- . 'Korea, Occupational safety health codes'
- . 'Korea, Hazardous chemicals management'
- . 'Korea, Dangerous Goods Safety Management Act'
- . 'Korea, Waste management law'
- . 'Korea, Residual organic pollutants laws'
- . 'Korea, Fire Service Act'
- . 'America, Occupational safety health codes'

■ The first updated : 2002. 01. 01

■ The final revision of the revision number and date of final : 7th – 1. Jan. 2015.

This MSDS has been written based on published data in domestic and international institutions and related laws.

And it has been amended to suit a revised edition of Global Harmony System(GHS).

■ Abbreviation Legend

- . OSHA means *the Occupational Safety & Health Administration.*
- . CERCLA means *the Comprehensive Environmental Response, Compensation, and Liability Act. Federal.*
- . EPCRA means *the Emergency Planning and Community Right-to-Know Act.*

- **Rotterdam Convention** means *the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade*.
- **Stockholm Convention** means *the Stockholm Convention on Persistent Organic Pollutants*.
- **Montreal Protocol** means *the Montreal Protocol on Substances that Deplete the Ozone Layer, as either adjusted and/or amended*.
- **RCRA** means the *Resource Conservation and Recovery Act*
- **ACGIH** means the *American Conference of Governmental Industrial Hygienists*
- **TWA** means the *Time Weighted Average*

■ Preparation information

Taekyung Ind. Co., LTD has written this document faithfully based on available information and the reliability tailored to meet the needs of a revised edition of Global Harmony System(GHS).

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It can cause additional problems due to the way you conducted if you want to use for a specific product. We recommend to find an appropriate use method through experiment.

Users should make their own experiments to determine the suitability of the information for their particular purposes.