

# Material Safety Data Sheet



Product Name

LiMEX

## I. Information about the Chemical Product and Company

- A. Product Name LiMEX
- B. Recommended Use and Restrictions
- Recommended Use Fire extinguishing agent
  - Usage Restrictions No information available
- C. Supplier Information (for imported products, include emergency contact information for domestic supplier)
- Company Name LiMEX
  - Address 120-7, Cheongbuk-ro, Cheongbuk-eup, Pyeongtaek-si, Gyeonggi-do, Republic of Korea
  - Emergency Phone Number TEL: +82-2-2618-1125, E-mail: rotary1123@naver.com

## 2. Hazardousness and Risks

- A. Hazardousness and Risk Classification
- Acute Toxicity (Oral): Category 4
  - Acute Toxicity (Inhalation – Dust/Mist): Category 4
  - Skin Corrosion/Irritation: Category 1
  - Serious Eye Damage/Eye Irritation: Category 1
  - Specific Target Organ Toxicity (Single Exposure): Category 3 (Respiratory system irritation)

B. Warning Label Information Including Precautionary Statements:

- Pictogram: [Image]



- Signal Word
- Hazard Statements

Danger

H302 Harmful if swallowed

H318 Causes serious eye damage

H332 Harmful if inhaled

H335 May cause respiratory irritation

- Precautionary Statements
- Prevention

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P235 Keep in a well-ventilated place.

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.

P264 Wash thoroughly after handling.

P270 Do not eat, drink, or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/eye protection/face protection.

P281 Use personal protective equipment as required.

Response P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
P301+P330+P331 If swallowed, rinse mouth. Do NOT induce vomiting.  
P303+P361+P353 If on skin (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304+P340 If inhaled, move to fresh air and keep at rest in a position 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.  
P308+P313 If exposed or concerned: Get medical advice/attention.  
P310 Immediately call a poison center or doctor/physician.  
P312 If you feel unwell, seek medical advice/attention.  
P330 Rinse mouth.  
P363 Wash contaminated clothing before reuse.

Storage P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.  
P407 Keep away from open flames or other sources of ignition.  
P410 Keep away from sunlight.  
P420 Store in a cool, dry place, isolated from other materials.

Disposal P501 Dispose of contents/container in accordance with local regulations.

### 3. Composition of the Substance and its Concentration:

substance name	CAS No.	Content (%)
Silicon Dioxide	14808- 60- 7	69.9~ 70.9
potassium carbonate	584- 08- 7	19.9~ 29.9
graphite	7782- 42- 5	0.2~ 1.0

### 4. Emergency Measures:

- A. In case of eye contact Seek emergency medical attention. Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If irritation persists, seek medical advice.
- B. In case of skin contact If it is a hot substance, immerse or rinse the affected area with plenty of cold water to remove heat. Remove contaminated clothing and shoes, and isolate the contaminated area. In case of contact with the substance, immediately rinse the skin and eyes with running water for at least 20 minutes. For minor skin contact, prevent the spread of contamination. If a liquid substance adheres to the skin and needs to be removed, seek assistance from a medical professional. If discomfort persists, seek medical examination. In case of skin irritation, seek medical advice. Remove contaminated clothing, wash before reuse.
- C. In case of inhalation If exposed to an excessive amount of dust or particulate matter, remove to fresh air and seek medical attention if there is coughing or other symptoms. If exposed or concerned about exposure, seek medical advice. If discomfort persists, seek medical advice.
- D. In case of ingestion If the substance is ingested or inhaled, do not perform mouth-to-mouth resuscitation using the mouth-to-mouth method; instead, use appropriate respiratory medical equipment. If discomfort is felt after swallowing, seek medical examination.
- C. Other medical precaution In the event of exposure, contact medical personnel and take special emergency measures such as conducting a trace investigation. Ensure that healthcare professionals are aware of the substance and take necessary protective measures. If discomfort persists, seek medical advice.

## 5. Handling of Explosions and Fires:

### A. Suitable (inappropriate) Extinguishing Agents

Use alcohol foam, carbon dioxide, or water spray.  
Dry sand or earth for smothering.

### B. Specific Hazards from the Chemical

During combustion, highly irritating and extremely toxic gases may be generated due to thermal decomposition or combustion. The container may explode when heated. Some substances may vaporize but are not easily ignited. Non-flammable; the substance itself does not burn, but upon heating, it may decompose, producing corrosive/toxic fumes.

## 6. Leak Response

### A. Measures to Protect Human Health and Necessary Protective Equipment

Wipe spills immediately, follow preventive measures for protective equipment.

Isolate the contaminated area. Do not enter without the necessary protective equipment or if unqualified personnel. Avoid touching or walking through the exposed substance. Remove all ignition sources. If not hazardous, stop the leakage. Do not touch damaged containers or leaks without wearing appropriate protective gear.

Cover with plastic sheeting to prevent spreading.

Be mindful of substances and conditions to be avoided.

Avoid inhalation of dust, fumes, gas, mist, vapor, or spray.

### B. Measures to Protect the Environment

Leaks can cause contamination; prevent entry into sewers or waterways. Prevent the inflow into drains, sewers, basements, or confined spaces in the event of a large-scale leak.

### C. Cleanup or Removal Methods

Absorb spilled material with inert substance (e.g., dry sand or earth), place in a chemical waste container.

Absorb the liquid and wash the contaminated area with detergent and water.

Use a clean shovel to carefully collect the leaked material into a clean, dry container,

loosely seal the container, and then move it away from the leakage area.



M. Vapor Density	Data not available
N. Relative Density	0.9
O. n-Octanol/Water Partition Coefficient	Data not available
P. Autoignition Temperature	Data not available
Q. Decomposition Temperature	Data not available
R. Viscosity	Data not available
S. Molecular Weight	Data not available

## 10. Stability and Reactivity

### A. Chemical Stability and Possibility of Hazardous Reactions

Container may explode when heated.  
 Some substances may escape, but it is not easily ignitable.  
 Non-flammable, but may generate corrosive/toxic fumes upon decomposition when heated.  
 May generate irritating, corrosive, toxic gases in case of fire.  
 Decomposes at high temperatures, producing toxic gases.  
 Stable under normal temperature and pressure, but inhalation of the substance may be harmful.  
 Some liquids may produce vapors causing dizziness and suffocation.  
 Stable under normal temperature and pressure, but inhalation of the substance may be harmful.  
 Some liquids may produce vapors causing dizziness and suffocation.  
 Some may generate flammable hydrogen gas when in contact with metals.  
 Non-flammable, but may decompose when heated, producing corrosive/toxic fumes.  
 Some may ignite flammable materials as oxidizers.  
 Toxic: May cause serious injury or death if inhaled, ingested, or in contact with skin. Contact with molten substance may cause severe burns to the skin and eyes.

### B. Conditions to Avoid

Heat, sparks, ignition sources, etc.

### C. Substances to Avoid

Flammable materials, reducing agents, metals

### D. Hazardous Substances Generated during Decomposition

Irritating, toxic gases During combustion, highly irritating and extremely toxic gases may be generated.  
 Corrosive/toxic fumes

## 11. Toxicological Information

A. Likely Routes of Exposure	Data not available.
B. Health Hazard Information	
• Acute Toxicity	Data not available.
• Oral	LD50 > 2000 mg/kg (Rat)
• Dermal	Data not available
• Inhalation	Data not available
• Skin Corrosion/Irritation	Data not available
• Serious Eye Damage/Irritation	Data not available
• Respiratory or Skin Sensitization	Data not available
• Reproductive Toxicity	Data not available
• Specific Target Organ Toxicity (Single Exposure)	Irritation to the respiratory system
• Specific Target Organ Toxicity (Repeated Exposure)	Irritation to the respiratory system
• Aspiration Hazard	Data not available

## 12. Ecological Information

A. Ecotoxicity: Data not available.	
• Fish	Data not available.
• Crustacea	Data not available.
• Birds	Data not available.
B. Residue and Decomposition	No data available
C. Biological Accumulation	No data available
D. Soil Mobility	Data not available
E. Other Harmful Effects	Data not available

## 13. Disposal Considerations

A. Disposal Method	Dispose of contents and containers in accordance with waste management regulations.
B. Precautions for Disposal	Dispose of the contents and containers according to the regulations specified in related laws.

## 14. Transport Information

A. UN Number	UN transport hazard classification information not available.
B. Proper Shipping Name	Not applicable
C. Hazard Class in Transportation	Not applicable
D. Packing Group	Not applicable
E. Marine Pollutant	Data not available
F. Special Precautions for User	Not applicable for fire emergency leak emergency.

## 15. Regulatory Information

A. Regulations under the Industrial Safety and Health Act:	Data not available.
B. Regulations under the Chemical Substance Control Act:	Data not available.
C. Regulations under the Act on the Registration and Evaluation, etc., of Chemical Substances:	Data not available.
D. Waste Management Act Regulations:	Data not available.
E. Other Domestic and Foreign Legal Regulations:	Various regulations from domestic and foreign laws are listed.
U.S. Regulatory Information (OSHA)	Not applicable
U.S. Regulatory Information (CERCLA)	Not applicable
U.S. Regulatory Information (EPCRA 302)	Not applicable
U.S. Regulatory Information (EPCRA 304)	Not applicable
U.S. Regulatory Information (EPCRA 313)	Not applicable
U.S. Regulatory Information (Rotterdam Convention)	Not applicable
U.S. Regulatory Information (Stockholm Convention)	Not applicable
U.S. Regulatory Information (Montreal Protocol Substance)	Not applicable
EU Classification Information (Confirmed classification results)	Not applicable
EU Classification Information (Hazard statements)	Not applicable
EU Classification Information (Precautionary statements)	Not applicable

## 16. Other Information

### A. Source of Data

Material Safety and Health Data provided by the Korea Occupational Safety and Health Agency,  
GESTIS (Physical State),  
GESTIS (Color),  
GESTIS (Odor),  
GESTIS (Melting Point/Freezing Point),  
GESTIS (Initial Boiling Point and Boiling Range),  
NIOSH (Vapor Pressure),  
NIOSH (Solubility),  
IPCS (Relative Density),  
IPCS (Molecular Weight),  
NITE (Reproductive Mutagenicity),  
NITE (Specific Target Organ Toxicity – Single Exposure),  
NITE (Specific Target Organ Toxicity – Repeated Exposure)  
IPCS (Physical State), IPCS (Color), IPCS (Odor),  
IPCS (Melting Point/Freezing Point)  
IPCS (Initial Boiling Point and Boiling Range),  
NLM/HSDB (pH), IPCS (Solubility),  
IPCS (Relative Density), ChemIDPlus (Molecular Weight)  
NITE (Reproductive Mutagenicity),  
NITE (Specific Target Organ Toxicity – Single Exposure)  
NITE (Specific Target Organ Toxicity – Repeated Exposure).

International Chemical Safety Cards

(ICSC)(<http://www.ilo.org/public/english/protection/safework/cis/products/icsc/dtasht/index.htm>)

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National Library of Medicine/Hazardous Substances Data Bank(NLM/HSDB)(<http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB>)

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Corporate Solution From Thomson Micromedex(<http://csi.micromedex.com>)(

International Uniform Chemical Information Database(IUCLID)(<http://ecb.jrc.it/esis>)

NLM/HSDB

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International Chemical Safety Cards

(ICSC)(<http://www.ilo.org/public/english/protection/safework/cis/products/icsc/dtasht/index.htm>)

ECOTOX

The ECOTOXicology database (ECOTOX)([http://cfpub.epa.gov/ECOTOX/quick\\_query.htm](http://cfpub.epa.gov/ECOTOX/quick_query.htm))

Quantitative Structure Activity Relation(QSAR)

14303

International Chemical Safety Cards

(ICSC)(<http://www.ilo.org/public/english/protection/safework/cis/products/icsc/dtasht/index.htm>)

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B. Date of Initial Drafting August 22, 2023

C. Revision Number and Last Revision Date

- Revision Number 0
- Last Revision Date August 22, 2023

D. OTHERS

This Material Safety Data Sheet (MSDS) has been compiled, edited, and partially modified based on the MSDS provided by the Korea Occupational Safety and Health Agency. The domestic regulatory status is determined based on the purpose of this product and known ingredients, so it may not completely match. Additionally, it is subject to change through the introduction or amendment of new laws. This MSDS is not a complete guarantee of the product itself and is based on current knowledge, experience, and relevant data. Due to the potential presence of unknown hazards, caution should be exercised during use. The ultimate decision regarding the suitability of any substance rests entirely with the user's responsibility.