CHEMICAL INDUSTRIES (FAR EAST) LIMITED.
化学工业(远东)有限公司

# Safety Data Sheet

**Revision: C**
**Date of Issue: 30.10.2024**

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product Identifier**

Product name : **Hydrated lime 92%**

Synonyms : Calcium dihydroxide, Calcium hydrate, Calcium hydroxide, Slaked lime

**Details of the supplier of the safety data sheet**

**Supplier:** Chemical Industries (Far East) Limited
(Head office) 3, Jalan Samulun, Jurong Town, Singapore 629127
Tel: 6265 0411 Fax: 6265 6690 Email: chemical.ind@cil.com.sg
Emergency telephone number 6265 0411 (Head Office)

**Relevant identified uses of the substance or mixture and uses advised against**

Use of the substance/preparation: Water Treatment

## 2. HAZARDS IDENTIFICATION

**GHS/CLP Classification:**

**Physical:**
Not Classified

**Health:**
Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 1
Specific target organ toxicity - Single exposure Category 1 (respiratory system)
Specific target organ toxicity - Repeated exposure Category 2 (lung)

**Environmental**
Not Classified

GHS/CLP Label:

**DANGER Statements of Hazard**
H315 Causes skin irritation
H318 Causes serious eye damage
H370 Causes damage to respiratory system
H373 May cause damage to lung through prolonged or repeated exposure

**Prevention**
P260 Do not breathe dust/fume.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 IF ON SKIN: Wash with plenty of water.
P261 Avoid breathing dust/spray.
P310 Immediately call a poison center or doctor/physician.
P304+P340m IF INHALED: Remove victim to fresh air and keep at resting a position comfortable for breathing.

**EU Substance Classification** (67/548/EEC):

## 3. COMPOSITION AND INFORMATION ON INGREDIENTS

| CAS# / EINECS # | Component | Percentage | EU Classification (67/548/EEC) | GHS/CLP Classification |
|---|---|---|---|---|
| 1305-62-0 / 215-137-3 | Calcium Hydroxide | >92% | Xi; R38/R41<br>T; R39 | STOT single Cat 1<br>Skin irritant Cat 2 |
| 14808-60-7 / 238-878-4 | Crystalline Silica in the form of Quartz | <1% | Xn R48/20 | STOT-RE Cat 1 (H372) |

## 4. FIRST AID MEASURES

**Description of First Aid Measures**

**Skin Contact:** Wash with plenty of soap and water.

**Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

**Most Important Symptoms and Effects, Both Acute and Delayed**
Causes skin irritation (Skin corrosion/irritation Category 2)
Causes serious eye damage (Serious eye damage/eye irritation Category 1)
Causes damage to respiratory system (Specific target organ toxicity - Single exposure Category 1 (respiratory system))
May cause damage to lung through prolonged or repeated exposure (Specific target organ toxicity - Repeated exposure Category 2 (lung))

**Indication of immediate medical attention and Special Treatment Needed**
If skin irritation occurs: Get medical advice/attention.

## 5. FIRE FIGHTING MEASURES

**Extinguishing Media:** In case of fire in the surroundings, all extinguishing agents allowed.

**Special Hazards Arising from the Substance or Mixture**
**Unusual Fire and Explosion Hazards**: None.
**Hazardous Combustion Products**: None.

**Special Protective Actions for Fire-Fighters**
**Special Fire Fighting Procedures**: None required with respect to this product. Firefighters should always wear self-contained breathing apparatus for fires indoors or in confined areas.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions, Protective Equipment and Emergency Procedures**
P2 filter respirator for harmful particles.

**Environmental Precautions**
Contain the spillage. Avoid the uncontrolled spills to watercourses and drains (pH increase).

**Methods and Material for Containment and Cleaning Up**
Sweep spilled substance into containers, then remove to safe place.

## 7. HANDLING AND STORAGE

**Precautions for Safe Handling**
Do not breathe dust/fume.
Wash hands thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves/protective clothing/eye protection/face protection.
Take off contaminated clothing and wash before reuse.

**Conditions for Safe Storage, Including any Incompatibilities**
Store locked up.

**Specific end use(s):** Various commercial and industrial applications.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control Parameters:**

Definitions:
NIOSH means U.S. National Institute for Occupational Safety and Health.
TLV means American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value.
TWA means time-weighted average.

ACGIH 2006, TLV-TWA 5mg/m3

**Exposure Controls:**
**Appropriate Engineering Controls:** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**Personal Protective Equipment**:
**Eye/face protection**: Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
**Skin protection:** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Body Protection**: Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
**Respiratory protection**: Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on Basic Physical and Chemical Properties**

Appearance: Colourless crystal or white powder.

Odor: Odourless
pH: 12.4 (25ºC saturated water solution)
Boiling Point: 580ºC (decomposition)
Melting Point: 580ºC (decomposition)
Solubility in Water: slightly soluble in water
Percent Volatile: No data available
Autoignition Temp: 607ºC

Specific Gravity (water=1): 2.2
Vapor Pressure: Not Applicable
Vapor Density: Not applicable
Evaporation Rate: Not applicable
Flash Point (Method Used): Noncombustible
Flammable Limits: LEL: Noncombustible
UEL: Noncombustible

## 10. STABILITY AND REACTIVITY

**Reactivity**: In aqueous media Ca(OH)2 dissociates resulting in the formation calcium cations and hydroxyl anions (when below the limit of water solubility) .

**Chemical Stability**: Non-flammable.

**Possibility of Hazardous Reactions**: React with strong oxidizing reagent

**Conditions to Avoid**: Heat.

**Incompatible Materials**: Strong acids

**Hazardous Decomposition Products**: None.
Further information: Calcium dihyroxide reacts with carbon dioxide o form calcium carbonate, which is common material in nature.

# 11. TOXICOLOGICAL INFORMATION

**Information on Toxicological Effects**

**Potential Health Effects:**

**Acute Toxicity Values:** Not classified because of SPECIES: Rat; ENDPOINT: LD50; VALUE: 7340mg/kg; REFERENCE SOURCE: ACGIH (2001); HSDB (2005)

**Skin corrosion / irritation:** Based on descriptions that it has moderate stimulativeness on all body surface exposure including eyes and airways (ACGIH, 7th, 2001) and that it indicates moderate, severe, and a corrosive stimulation on human skin (IUCLID, 2000; HSDB, 2005; ICSC (J) 1997; SITTIG, 4th, 2002; and HSFS, 2005), it was classified as Category 2.
Causes skin irritation (Skin corrosion/irritation Category 2)

**Serious eye damage / eye irritation:** Based on the description that moderate, severe, and corrosive irritations are indicated to the eyes in humans (ACGIH, 7th, 2001; IUCLID, 2000; HSDB, 2005; ICSC (J) 1997; SITTIG, 4th, 2002; HSFS, 2005), and the description that corrosive irritations are indicated to the rabbits (IUCLID, 2000), it was set as Category 1.
Causes serious eye damage (Serious eye damage/eye irritation Category 1)

**Respiratory sensitization**: No data available.

**Skin sensitization**: No data available.

**Germ cell mutagenicity**: No data available.

**Carcinogenicity**: No data available.

**Reproductive Toxicity**: No data available.

**Specific target organ toxicity - Single exposure**: Classified into Category 1 (respiratory system) based on the descriptions (ACGIH, 7th, 2001; HSDB, 2005; ICSC (J), 1997; SITTIG, 4th, 2002; HSFS, 2005) that it stimulates human respiratory organ and respiratory tract to induce lung edema.
Causes damage to respiratory system (Specific target organ toxicity - Single exposure Category 1 (respiratory system)).

**Specific target organ toxicity - Repeated exposure**: It was classified into Category 2 (lungs) since description that says human lung may be risked in Priority 2 (ICSC (J) 1997; SITTIG, 4th, 2002).
May cause damage to lung through prolonged or repeated exposure (Specific target organ toxicity - Repeated exposure Category 2(lung)).

**Aspiration hazard**: No data available.

**Potential Health Effects:**
Inhalation – May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion – May be harmful if swallowed.
Skin – May be harmful if absorbed through skin. Causes skin irritation.
Eyes – Causes eye burns.

## 12. ECOLOGICAL INFORMATION

**Acute toxicity to the aquatic environment:** Insufficient data available.

**Chronic toxicity to the aquatic environment:** Insufficient data available.

**Other Adverse Effects**: No data available

## 13. DISPOSAL CONSIDERATIONS

**Waste Treatment Methods**

**Product:**
If you would like to dispose of this chemical, you should properly dispose of this by yourself or ask qualified specific agents dispose of this according to related legislations and local regulations. If you would like to ask the agents dispose of this chemical, you should provide sufficient information on dangerousness and hazard of this chemical.

**Container:**
Container should be recycled after cleaning or if you would like to dispose of container of this chemical, you should properly dispose of this by yourself or ask qualified specific agents dispose of this according to related legislations and local regulations. If you would like to ask the agents dispose of this container, you should provide sufficient information on dangerousness and hazard of this chemical in this container and information on ingredient and notice of container.

## 14. TRANSPORT INFORMATION

**UN number**
ADR/RID: - IMDG: - IATA-DGR: -
**UN proper shipping name**
ADR/RID: Not dangerous goods
IMDG: Not dangerous goods
IATA-DGR: Not dangerous goods
**ransport hazard class(es)**
ADR/RID: - IMDG: - IATA-DGR: -
**Packaging group**
ADR/RID: - IMDG: - IATA-DGR: -
**Environmental hazards**
ADR/RID: no IMDG Marine pollutant: no IATA-DGR: no
**Special precautions for user**
no data available

## 15. REGULATORY INFORMATION

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

No data available in Singapore

## 16. OTHER INFORMATION

This safety data sheet has been prepared by Chemical Industries (Far East) Limited.

This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Chemical Industries (Far East) Limited cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact Chemical Industries (Far East) Limited at the contact details on page 1.

Chemical Industries (Far East) Limited responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.