

# SAFETY DATA SHEET

### 1. Identification

Product identifier Mississippi Lime Hydrated Lime

Other means of identification

Product code Hydrated Lime (All Facilities), Hydrated Lime FGT, Hydrated Lime HRH (All Facilities), Hydrated

Lime HRH64, Hydrated Lime SP, Hydrated Lime AHL, MicroCal® H (HS, HM, HF, HFT20, HXP),

and PetroCal® H (HS, HM, HF) Product Lines, Calcium Hydroxide

**CAS number** 1305-62-0

Recommended use Industrial, Chemical, Construction, Environmental and Water Treatment applications of calcium

hydroxide.

**Recommended restrictions** Not for food or food contact applications.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer: Mississippi Lime Company
Address: 16147 US Highway 61
Ste Genevieve, MO 63670

**24 Hour Emergency** (800) 437-5463

**Contact Number:** 

# 2. Hazard(s) identification

Physical hazards Not classified.

**Health hazards** Skin corrosion/irritation Category 2

Serious eye damage/eye irritation Category 1

Specific target organ toxicity, single exposure Category 3 respiratory tract irritation

Environmental hazards Hazardous to the aquatic environment, acute Category 3

hazard

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Causes skin irritation. Causes serious eye damage. May cause respiratory irritation. Harmful to

aquatic life.

**Precautionary statement** 

**Prevention** Avoid breathing dust. Wash thoroughly after handling. Use only outdoors or in a well-ventilated

area. Avoid release to the environment. Wear eye protection/face protection. Wear protective

gloves.

**Response** If on skin: Wash with plenty of water. If inhaled: Remove person to fresh air and keep comfortable

for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before

reuse.

**Storage** Store in a well-ventilated place. Keep container tightly closed. Store locked up.

**Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise

classified (HNOC)

None known.

Supplemental information None.

# 3. Composition/information on ingredients

#### **Substances**

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Cnemical name	Common name and synonyms	CAS number	%
Calcium hydroxide (Ca(OH)2)		1305-62-0	93 - 100
Impurities			
Chemical name	Common name and synonyms	CAS number	%
Calcium carbonate		471-34-1	≤ 5
Silicon dioxide		7631-86-9	≤ 2
Magnesium Oxide		1309-48-4	≤ 1

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

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## 4. First-aid measures

Chamical name

**Inhalation** Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison

center or doctor/physician if you feel unwell.

**Skin contact** Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get

medical advice/attention. Wash contaminated clothing before reuse.

**Eye contact**Do not rub eyes. Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

Toolitade lenses, in present and easy to do. Continue finding. Set medical attent

**Ingestion** Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Dusts may irritate the respiratory tract, skin and eyes. Coughing. Skin irritation. May cause redness and pain.

CAS number

0/

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## 5. Fire-fighting measures

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding

environment.

Unsuitable extinguishing media

**General information** 

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions

Use water spray to cool unopened containers.

Specific methods
General fire hazards

Use standard firefighting procedures and consider the hazards of other involved materials.

The product is nonflammable and does not support combustion.

## 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Avoid inhalation of dust. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Collect dust using a vacuum cleaner equipped with HEPA filter. Prevent product from entering drains. Stop the flow of material, if this is without risk.

Large Spills: Wet down with water and dike for later disposal. Absorb in vermiculite, dry sand or earth and place into containers. Shovel the material into waste container. Following product recovery, flush area with water.

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

#### **Environmental precautions**

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

### Precautions for safe handling

Minimize dust generation and accumulation. Provide appropriate exhaust ventilation at places where dust is formed. Do not get this material in contact with eyes. Avoid breathing dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities Store locked up. Store in tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

### Occupational exposure limits

U.S OSHA Impurities	Туре	Value	
Silicon dioxide (CAS 7631-86-9)	TWA	80 mg/m3	
US. OSHA Table Z-1 Limits for Air	Contaminants (29 CFR 1910.	1000)	
Material	Туре	Value	Form
Calcium hydroxide (Ca(OH)2) (CAS 1305-62-0)	PEL	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
Impurities	Туре	Value	Form
Magnesium Oxide (CAS 1309-48-4)	PEL	15 mg/m3	Total particulate.
US. OSHA Table Z-3 (29 CFR 1910.			_
Material	Туре	Value	Form
Calcium hydroxide (Ca(OH)2) (CAS 1305-62-0)	TWA	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
		50 mppcf	Total dust.
		15 mppcf	Respirable fraction.
Impurities	Туре	Value	Form
Magnesium Oxide (CAS 1309-48-4)	TWA	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
		50 mppcf	Total dust.
		15 mppcf	Respirable fraction.
Silicon dioxide (CAS 7631-86-9)	TWA	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
		20 mppcf	
Calcium carbonate (CAS 471-34-1)	TWA	5 mg/m3	Respirable fraction.
,		15 mg/m3	Total dust.
		50 mppcf	Total dust.
		15 mppcf	Respirable fraction.
US. ACGIH Threshold Limit Values			
Material	Туре	Value	
Silicon dioxide, crystalline silica-free (CAS 1305-62-0)	TWA	5 mg/m3	

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US. ACGIH Threshold Limit Value	es		
Impurities	Туре	Value	Form
Magnesium Oxide (CAS 1309-48-4)	TWA	10 mg/m3	Inhalable fraction.
US. NIOSH: Pocket Guide to Che	mical Hazards		
Material	Туре	Value	
Magnesium Oxide (CAS 1305-62-0)	TWA	5 mg/m3	
Impurities	Туре	Value	Form
Silicon dioxide (CAS 7631-86-9)	TWA	6 mg/m3	
Calcium carbonate (CAS 471-34-1)	TWA	5 mg/m3	Respirable.
,		10 mg/m3	Total

**Biological limit values** 

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. If engineering measures are not sufficient to maintain concentrations of dust particulates below the Occupational Exposure Limit (OEL), suitable respiratory protection must be worn. If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits. Provide eyewash station and safety shower.

Individual protection measures, such as personal protective equipment

**Eye/face protection** Use tight fitting goggles.

Skin protection

Hand protection Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove

supplier.

Skin protection

Other Wear appropriate chemical resistant clothing.

**Respiratory protection** Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels

exceeding the exposure limits. Chemical respirator with organic vapor cartridge, full facepiece,

dust and mist filter.

**Thermal hazards** Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective

equipment to remove contaminants.

#### 9. Physical and chemical properties

**Appearance** 

Physical state Solid.
Form Powder.
Color White.
Odor None.

Odor threshold Not available.

**pH** 12.4 In aqueous solution

Melting point/freezing point 1076 °F (580 °C) Initial boiling point and boiling Not available.

range

Flash point Does not flash
Evaporation rate Not available.
Flammability (solid, gas) Non combustible.

Upper/lower flammability or explosive limits

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

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**Vapor pressure** < 0.0000001 kPa (77 °F (25 °C))

Vapor density Not available.

Relative density Not available.

Solubility(ies)

Solubility (water) 1.7 g/l at 20 °C

Partition coefficient Not available.

(n-octanol/water)

Auto-ignition temperatureNot available.Decomposition temperatureNot available.ViscosityNot available.

Other information

**Density** 2.2398 g/cm3 estimated

Explosive properties Not explosive.

Molecular formula Ca-H2-O2

Molecular weight 74.1 g/mol

Oxidizing properties Not oxidizing.

## 10. Stability and reactivity

**Reactivity** Reacts violently with strong acids.

**Chemical stability** Material is stable under normal conditions.

Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

**Conditions to avoid** Avoid temperatures exceeding the decomposition temperature. Contact with incompatible

materials. Do not mix with other chemicals.

Incompatible materials Acids. Phosphorus. Maleic anhydride. Nitroethane. Nitromethane. Nitroparaffins. Nitropropane.

**Hazardous decomposition** 

products

No hazardous decomposition products are known.

### 11. Toxicological information

#### Information on likely routes of exposure

Inhalation Dust may irritate respiratory system. Prolonged inhalation may be harmful.

**Skin contact** Causes skin irritation.

**Eye contact** Causes serious eye damage.

**Ingestion** May cause discomfort if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Skin irritation. May cause redness and pain. Dermatitis. Rash. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Dusts may irritate the respiratory tract, skin and eyes.

Coughing.

#### Information on toxicological effects

Acute toxicity Not expected to be acutely toxic.

Product Species Test Results

Calcium hydroxide (Ca(OH)2) (CAS 1305-62-0)

Acute Oral

LD50

Rat 7340 mg/kg

**Skin corrosion/irritation** Causes skin irritation.

Serious eye damage/eye

irritation

Causes serious eye damage.

Respiratory or skin sensitization

**Respiratory sensitization** Not a respiratory sensitizer.

**Skin sensitization** This product is not expected to cause skin sensitization.

**Germ cell mutagenicity**No data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

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Carcinogenicity Not classifiable as to carcinogenicity to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity

Silicon dioxide (CAS 7631-86-9) 3 Not classifiable as to carcinogenicity to humans.

**NTP Report on Carcinogens** 

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity -

single exposure

May cause respiratory irritation.

Specific target organ toxicity -

repeated exposure

Not classified.

Not an aspiration hazard. **Aspiration hazard** 

**Chronic effects** Prolonged inhalation may be harmful.

12. Ecological information

**Ecotoxicity** Harmful to aquatic life.

**Product Test Results Species** 

Calcium hydroxide (Ca(OH)2) (CAS 1305-62-0)

Aquatic Acute

LC50 Zambezi barbel (Clarias gariepinus) Fish 33.9 mg/l, 96 hours

Persistence and degradability

The product contains inorganic compounds for which biodegradability is not applicable.

Bioaccumulative potential

No data available on bioaccumulation.

Mobility in soil

This product is slightly water soluble and may disperse in soil.

Other adverse effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow

this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches

with chemical or used container. Dispose of contents/container in accordance with

local/regional/national/international regulations.

Local disposal regulations

Dispose in accordance with all applicable regulations.

Hazardous waste code

The waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Waste from residues / unused

products

Dispose in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal

instructions).

Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is

emptied. Empty containers should be taken to an approved waste handling site for recycling or

disposal.

## 14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

**IMDG** 

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and

Not applicable.

the IBC Code

### 15. Regulatory information

**US** federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication

Standard, 29 CFR 1910.1200.

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#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed

**Toxic Substances Control Act (TSCA)** 

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous

Yes

chemical

Classified hazard Skin corrosion or irritation

**categories** Serious eye damage or eye irritation

Specific target organ toxicity (single or repeated exposure)

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Contains component(s) regulated under the Safe Drinking Water Act.

(SDWA)

**US** state regulations

**US. Massachusetts RTK - Substance List** 

Calcium carbonate (CAS 471-34-1)

Calcium hydroxide (Ca(OH)2) (CAS 1305-62-0)

Magnesium Oxide (CAS 1309-48-4) Silicon dioxide (CAS 7631-86-9)

**US. New Jersey Worker and Community Right-to-Know Act** 

Calcium carbonate (CAS 471-34-1)

Calcium hydroxide (Ca(OH)2) (CAS 1305-62-0)

Magnesium Oxide (CAS 1309-48-4)

US. Pennsylvania Worker and Community Right-to-Know Law

Calcium carbonate (CAS 471-34-1)

Calcium hydroxide (Ca(OH)2) (CAS 1305-62-0)

Magnesium Oxide (CAS 1309-48-4)

Silicon dioxide (CAS 7631-86-9)

**US. Rhode Island RTK** 

Calcium carbonate (CAS 471-34-1)

Calcium hydroxide (Ca(OH)2) (CAS 1305-62-0)

Magnesium Oxide (CAS 1309-48-4)

Silicon dioxide (CAS 7631-86-9)

**California Proposition 65** 

California Safe Drinking Water and Toxic Enforcement Act of 2016 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

#### International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes

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Country(s) or region Inventory name On inventory (yes/no)\*

Europe European Inventory of Existing Commercial Chemical

Substances (EINECS)

Europe European List of Notified Chemical Substances (ELINCS) No Inventory of Existing and New Chemical Substances (ENCS) Japan Yes

Korea Existing Chemicals List (ECL) Yes New Zealand Inventory New Zealand Yes

**Philippines** Philippine Inventory of Chemicals and Chemical Substances Yes

(PICCS)

Taiwan Taiwan Chemical Substance Inventory (TCSI) Yes United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing

## 16. Other information, including date of preparation or last revision

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Health: 3 **HMIS®** ratings

Flammability: 0 Physical hazard: 0

**NFPA** ratings



**Disclaimer** 

Mississippi Lime Company cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

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