

Rev Date: 2019-10-01

Section 1: Identification

1. Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Identification of the Substance/Mixture and of the Company/Undertaking

Product Name: LIME PRIME

Recommended Use and Uses Advised Against

Identified uses: Residential, Commercial, Industrial Construction Primer. Surface Primer for Mold Abatement / Remediation Projects.
 Uses advised against: New or uncoated aluminum or copper water pipes.

Details of the Supplier of the Safety Data Sheet (Producer/Seller)

Company: Earthpaint Incorporated
 Address: PO BOX 19129, Asheville, NC 28815
 Tel.: 828-258-2580
 Website: www.earthpaint.net
 Email: Support@Earthpaint.net
 Importer: Not applicable.
 Emergency No: Nationwide Poison Center Hotline – 800-222-1222,
<https://aapcc.org>

Section 2: Hazard(s) Identification

2. Hazards Identification

2.1 Hazards Identification

Hazard Classification: Skin irritation, category 2
 Causes serious eye damage, category 1
 Target organ systemic toxicity (single exposure), category 3
 Harmful if swallowed, category 3

Signal word: Danger

Hazard statement:
 H315. Cat. 2: Causes skin irritation.
 H318. Cat. 1: Causes serious eye damage.
 H335. Cat. 3: May cause respiratory irritation.
 H302. Cat. 3: Harmful if swallowed



Precautionary Statement:

P102: Keep out of reach of children.
 P261: Avoid breathing dust/fume/gas/mist/vapors/spray.
 P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
 P302+P352: IF ON SKIN: Wash with soap and water.
 P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P305+P351+P338: IF IN EYES: Rinse carefully with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P501: Dispose of contents/container according to regional, national and international regulations.
 Other Hazards: No information.
 GHS Hazard Pictograms: According to Regulation (EC) No 1272/2008 [CLP/GHS]



Section 3: Composition/Information on Ingredients

3. Composition/Information on Ingredients

3.1 Composition / Information on Ingredients

Substances / Mixture: Mixture

Name – Common Name	CAS#	%	Formula	
Calcium Hydroxide (Lime)	1305-62-0	40-80	Ca(OH) ₂	Exact % Trade Secret.
Titanium Dioxide (Inorganic, White Earth Oxide Pigment chemically and physically bound to minerals & binders within product. Respirable dust unlikely to occur.)	13463-67-7	0-1	TiO ₂	0% refers to untinted product.

There are no additional ingredients, additives, stabilizers present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.
 Occupational exposure limits, if available, are listed in Section 8.

Section 4: First-Aid Measures

4. First Aid Measures

4.1 Description of the First Aid Measures

General information:	Seek medical attention if symptoms persist.
Upon Inhalation:	Get fresh air immediately.
Upon contact with skin:	Treat as an Alkaline. Remove contaminated clothing. Wash off skin with soap and water. Rinse with diluted vinegar or lemon juice to help balance pH. Rinse well. If irritation continues, contact physician. (Temporary skin contact does not ordinarily result in irritation. Avoid skin contact. If it gets on skin rinse it off. Avoid open cuts.)
Upon contact with eyes:	Flush open eyes with water for 10 minutes.
Upon ingestion:	Drink plenty of water, Acidic fruit juices or diluted vinegar help to balance pH. Do not induce vomiting.

Most important Symptoms and Effects, both Acute and Delayed

Symptoms:	Treat product as an alkaline. Eye contact: can cause serious irritation or eye damage with prolonged exposure. Skin contact: irritation can occur, especially on open cuts. (Male Worker skin exposed to heavy wet puddle on arm <15 min - Irritant. <30 min – Irritant. <60 min – n/a, product dried, pH neutralized.) Can result in severe skin burns if not washed off. This will depend on the duration of exposure, wetness (sweat included) sensitivity of the individual's skin. Inhalation: may irritate respiratory tract or mucus membrane.
Effects:	Same as symptoms. Chronic, long term eye contact could lead to blindness. Causes irreversible eye damage with prolonged contact. (Rabbits 24 hr exposure - severe irritation.)

Recommendations for Immediate Medical Attention and Special Treatment Needed

Treatment:	Treat each symptom following suggestions in 4.1
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Section 5: Fire Fighting Measures

5. Fire Fighting Measures

5.1 Extinguishing Equipment

Suitable extinguishing equipment:

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Product is not flammable or combustible.

Extinguishing powders, CO₂, firefighting foam.

Unsuitable extinguishing equipment:

Do not use water jet as an extinguisher, as this will spread the fire. During fire, gases hazardous to health may be formed.

Specific Hazards arising from product during fire

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

Firefighter Recommendations

Protective equipment: Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Move containers from fire area if you can do so without risk. Protect against inhalation with protective respiratory device. **Wear protective clothing.**

Precautions: Use standard firefighting procedures.

Section 6: Accidental Release Measures

6. Accidental Release Measures

6.1 Accidental Release Measures

Personal Precautions, protective equipment, and emergency procedures:

Ventilate area properly.

Wear protective clothing and eye protection.

Rubber gloves, long sleeves, and eye protection recommended to avoid contact with skin, eyes, and clothing.

Contact physician upon ingestion, contact with eyes, and/or extended contact with skin.

Environmental Precautions:

Avoid spilling large quantities into drains and surface waters.

Contact local authorities if spillage occurs. Treat as an alkaline.

Methods and materials used for containment:

Protect areas with plastic or canvas drop cloths. Absorb spills with sand and dispose of according to State and Local regulations. Keep materials protected from damage in a dry area sealed in the provided containers. Keep sealed and upright when not in use. Wear gloves during cleanup. Dispose of in appropriate containers.

Section 7: Handling and Storage

7. Handling and Storage

7.1 Precautions for Safe Handling & Hygiene

Safe handling instructions:

Ensure appropriate protective clothing is worn (long sleeves, gloves, eye protection.) Have an eye rinsing station or sink nearby.

Hygienic practices:

Avoid contact with skin and eyes. Avoid eating, drinking, and smoking while using product.

Safe storage conditions including any compatibilities

Storage conditions:

Keep materials protected from damage in a dry area sealed in the provided containers. Keep sealed tight and upright when not in use. Keep away from children.

Specific storage requirements:

Store in original container.

Proper container material:

Plastic.

Improper container material:

Aluminum.

Section 8: Exposure Controls/Personal Protection

8. Exposure Controls/Personal Protection

8.1 Parameters to be Controlled

Calcium Hydroxide, USA /OSHA:

ACGIH TLV (United States, 3/2017). TWA: 5 mg/m³ 8 hours.

NIOSH REL (United States, 10/2016). TWA: 5 mg/m³ 10 hours.

OSHA PEL (United States, 6/2016). TWA: 5 mg/m³ 8 hours.

Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust.

Permissible Exposure Limit (PEL):
15 mg/m³ TWA

Predicted No-Effect Concentration (PNEC):
Freshwater: 0.49 mg/l

Marine water: 0.32 mg/l

Sewage treatment plant (STP): 3 mg/l Soil: 1.080 mg/kg

Calcium Hydroxide, Canada:
CA Alberta Provincial (Canada, 4/2009). 8 hrs OEL: 5 mg/m³ 8 hours. CA British Columbia Provincial (Canada, 6/2017). TWA: 5 mg/m³ 8 hours. CA Ontario Provincial (Canada, 7/2015). TWA: 5 mg/m³ 8 hours. CA Quebec Provincial (Canada, 1/2014). TWAEV: 5 mg/m³ 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 10 mg/m³ 15 minutes. TWA: 5 mg/m³ 8 hours.

Calcium Hydroxide, Mexico:
NOM-010-STPS-2014 (Mexico, 4/2016). TWA: 5 mg/m³ 8 hours.

Titanium Dioxide, USA /OSHA:
ACGIH TLV (United States, 3/2018). TWA: 10 mg/m³ 8 hours.
OSHA PEL (United States, 5/2018). TWA: 15 mg/m³ 8 hours.
Form: Total dust

Titanium Dioxide, CA British Columbia Provincial (Canada, 7/2018):
TWA: 3 mg/m³ 8 hours. Form: Respirable dust TWA: 10 mg/m³ 8 hours. Form: Total dust CA Quebec Provincial (Canada, 1/2014). TWAEV: 10 mg/m³ 8 hours. Form: Total dust. CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 10 mg/m³ 8 hours. CA Ontario Provincial (Canada, 1/2018). TWA: 10 mg/m³ 8 hours. CA Saskatchewan Provincial (Canada, 7/2013). STEL: 20 mg/m³ 15 minutes. TWA: 10 mg/m³ 8 hours.

Exposure controls

Engineering controls: Use Fresh Air to Cross-Ventilate area properly or use appropriate mechanical exhaust system. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Personal controls: Wear Organic Vapor NIOSH Approved Respiratory protection if Sensitive to odor, when spraying or if ventilation is poor. Wear protective chemical resistant Rubber Gloves (breakthrough time dependent on glove manufacture, check periodically to insure protection). Wear protective glasses or goggles. Provide eye rinsing station or bottle. Provide vinegar or acidic fruit juice to neutralize alkalinity after washing off skin. Don't eat or drink while using product. Wash hands before and after using.

Wear protective clothing: Cover arms and legs (fully cover when spraying.) Wear work boots appropriate for each project.

Environmental controls: Cover areas not to be coated.

Section 9: Physical and Chemical Properties

9. Physical and Chemical Properties

9.1 Physical and Chemical properties

Appearance:	Pasty, white liquid.
Explosive limits:	Non-combustible.
Odor: Threshold:	Practically Odorless. No known threshold. Test in advance if sensitive to odor. Product generally reduces odors of surfaces it is applied to. <i>[Chemically sensitive people or those undergoing medical treatments may be sensitive to odors. Cross ventilate buildings with fresh air 8-24 hours before reintroducing sensitive individuals.]</i>
Vapor pressure:	0 mmHg
Vapor Density:	Not applicable.
pH:	12-12.6 (@70F). Dries pH neutral.
Relative density:	1.33
Melting point/freezing point:	550°C
Water Solubility:	1.7g/l at 20°C Initial boiling point and boiling range: 100°C
Flash point:	Not applicable.
Evaporation rate:	Not applicable.
Flammability (solid, gas):	Non-flammable.
Partition coefficient (n-octanol/water):	Not applicable.
Auto-ignition temperature:	None at temps below 400°C
Decomposition temperature:	580°C. Heated above this temperature will cause calcium hydroxide to separate into calcium oxide and water.
Viscosity:	>100 + 3KU.

Section 10: Stability and Reactivity

10. Stability and Reactivity

10.1 Stability and Reactivity

Reactivity:	Calcium hydroxide separates in aqueous media forming calcium cations and hydroxyl anions.
Chemical Stability:	Stable under normal conditions and suggested use.
Hazardous Reactions:	Exothermic reactions when combined with strong acids.
Conditions to Avoid:	Avoid heating above 580°C to avoid decomposition of calcium hydroxide.

Incompatible Materials: Strong acids that could react exothermically. Avoid coating new or uncoated aluminum.

Hazardous Decomposition Products:
None known.

Section 11: Toxicological Information

11. Toxicological Information

11.1 Toxicological Information

Acute Toxicity: Not expected to be acutely toxic. Dried product is zero-voc and non-toxic. Wet product is alkaline and dries pH neutral. Exposure is common. Serious acute effects to this product have not been seen. Mild, temporary skin irritation can occur when left on worker skin and not washed off. (*>15 min no effect typically seen. >1 hr skin irritation. >4 hrs skin irritation.*) Small amount of product dries to a neutral pH on skin within 15-30 min. If wet product were exposed to worker skin for prolonged periods (>4 hours) skin burns would be expected. Exposed Open cuts, abrasions can be severely irritated. Splashes in worker eyes moderately irritate and are rinsed promptly with no permanent effect.

Skin corrosion/irritation: Prolonged exposure causes severe skin burns. Mild to Moderate exposure Causes Skin Irritation. Mild, temporary skin irritation can occur when left on worker skin and not washed off. (*>15 min no effect typically seen. >1 hr skin irritation. >4 hrs skin irritation.*) Product dries to a neutral pH on skin within 15-30 min. If wet product were exposed to worker skin for prolonged periods severe skin burns would be expected. Exposed Open cuts, abrasions can be severely irritated. Rinse with a mild acidic like Vinegar, Lemon Juice to neutralize alkalinity on skin.

Respiratory or skin sensitization:
Not a respiratory or skin sensitizer.

Numerical measures of toxicity:
Titanium Dioxide - LD50 Oral: > 10000 mg/kg (Rat), Titanium Dioxide Skin - Mild irritant Human - 72 hours 300 Micrograms Intermittent.

Calcium Hydroxide - Calcium Hydroxide LD50 Oral Rat 7340 mg/kg, Calcium Hydroxide Eyes - Severe irritant Rabbit - 10 milligrams.

Chart indicates if each agency lists any individual component of this mixture as carcinogenic.

Component	OSHA / USA	NTP	IARC	ACGIH	Mexico
Calcium Hydroxide	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
Titanium Dioxide	Not Listed	Not Listed	2B	Not Listed	Not Listed

International Agency for Research on Cancer (IARC) (Lyon, France – HQ) Occupational exposure has classified titanium dioxide as possibly carcinogenic to humans(2B). Long term worker inhalation of breathable dust from TiO₂ is the primary concern, their summary concludes:

"No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium dioxide is bound to other materials, such as paint."

- IARC MONOGRAPHS VOLUME 93, 1.3.2, (c) User industries

CMR properties:	Not carcinogenic, germ cell mutagenic, or a reproductive toxicant.
Specific target organ toxicity (Single exposure):	May cause respiratory irritation.
Specific target organ toxicity (repeated exposure):	None known.
Aspiration hazard:	Not and aspiration hazard.
Ingestion:	Causes digestive tract burns. [Patients with mild ingestions of Calcium Hydroxide may only develop irritation or grade I (superficial hyperemia and edema) burns of the oropharynx, esophagus or stomach; acute or chronic complications are unlikely.] Chronic ingestion not expected.
Contact with eyes:	Causes serious eye damage. Brief contact (splash), rinsed promptly causes irritation and typically resolves shortly after rinsing. Prolonged contact may cause irreversible eye damage with prolonged contact. [<i>Rabbits 24 hr exposure to Calcium Hydroxide = severe irritation. Was severely irritating or corrosive when admin directly to central corneal surface of rabbit eyes. Irritation categories graded by draize scale recorded as time for clearing was negligible = 24 hr, moderate = 7 days, substantial = 21 days, severe = beyond 21 days.</i>] GRIFFITH JF ET AL; TOXICOL APPL PHARMACOL 55 (3): 501-13 (1980)
Inhalation:	Irritation, cough, difficulty breathing.
Contact with skin:	Causes severe skin burns. Mild, temporary skin irritation can occur when left on worker skin and not washed off. (>15 min no effect typically seen. >1 hr skin irritation. >4 hrs skin irritation.) Product dries to a neutral pH on skin within 15-30 min. If wet product were exposed to worker skin for prolonged periods severe skin burns would be expected.

Other Information: No information.

Section 12: Ecological Information (non-mandatory)

12. Ecological Information

12.1 Ecological Information

Aquatic toxicity: Calcium Hydroxide - Algae blooms. In concentrations >1g/L, pH increases due to its high alkalinity (12 – 12.6). Blue-Green Algae, inhibition of nitrogen fixation.

Component	Freshwater	Fish	Microtox	Water Flea
Calcium Hydroxide	Not Listed	LC50 = 160 mg/L, 96h static (Gambusia affinis)	Not Listed	Not Listed
Titanium Dioxide	Not Listed	Acute LC50>1000000 µg/l Marine water Fish - Fundulus heteroclitus 96 hours	Not Listed	Not Listed

Degradability: Not applicable to inorganic substances.
 Bioaccumulation: Not expected. Agricultural uses of Calcium Hydroxide are extensive and well-studied. *“Based on current use patterns no long term environmental impact is expected from calcium oxide or calcium hydroxide because once calcium enters the environment, it is expected to quickly reach background levels.”* Docket Number: EPA-HQ-OPP-2010-0693 www.regulations.gov
 Mobility in soil: Weak mobility in soil.
 Other effects: Calcium Hydroxide useful to balance acidic waterways, algae blooms, and kill microbes in sewage systems but when concentration is >1g/L aquatic organisms can be harmed due to rapid shift in pH.
 CDC.gov guidance after flooding states,
 “Small areas of gross contamination (i.e., sewage with visible solid material) should be cleaned, and treatment with hydrated lime may be considered. **Hydrated lime can be applied to increase pH to a level that kills microbes.** The U.S. Environmental Protection Agency (EPA) requires that the pH of sewage sludge treated for land application be held at 12 for a minimum of 2 hours to kill microbes, and be held at a minimum of 11.5 for 22 additional hours to reduce vector attraction (13). In addition to maintaining an

adequate pH level, sludge dryness can affect how easily and quickly microbes die (14). Applying quicklime, which can help dry areas of gross contamination, may be considered. The National Lime Association promotes using quicklime to expedite drying of mudded areas (15).”

https://www.cdc.gov/nceh/ehs/publications/guidance_flooding.htm

Section 13: Disposal Considerations (non-mandatory)

13. Disposal Considerations

13.1 Disposal Considerations

- Appropriate disposal: Dispose of containers and leftover product according to local, state and Federal waste disposal requirements. Tin cans biodegrade quickly in landfill. Rinse well with water and reuse, recycle or send to landfill. Heavy Duty plastic pails can be washed with water and reused, recycled or in the least ideal situation be sent to landfill.
- Sewage disposal information: Do not empty into drains.
- Special precautions: See Section 8 for Personal Protection. Separate waste (product and container) appropriately according to local, state, and Federal waste disposal requirements.

Section 14: Transport Information (non-mandatory)

14. Transport Information

14.1 Transport Information

- US Department of Transportation:
Not Regulated.
- TDG: Not Regulated.
- IATA: Not Regulated.
- IMDG International Maritime Organization:
Not Regulated.
- Mexico: Not Regulated.
- UN number: 3266
- UN proper shipping name:
Corrosive Liquid, Basic, Inorganic, N.O.S.



Transport hazard classes:
Class 8 Corrosive Substance
 Packing Group: *III (low hazard)*
 Environmental hazards: *None*
 Special precautions for user:
None known

Transport in bulk according to Annex II of MARPOL 73/78 and IBC-code:
 No information.
 Other: N/A

Section 15: Regulatory Information (non-mandatory)

15. Regulatory Information

15.1 Safety, Health, Environmental Regulations

Emergency Planning and Community Right to-Know Act (EPCRA), Section 302
 Extremely Hazardous Substances:
Not listed

SARA 302/304: Emergency Planning and Release Notification:
Not listed

SARA 311: Hazard Categories (40 CFR 370) Registered under OSHA
 HazCom

SARA 312: Emergency Planning and Release Notification:
Not listed

EPCRA Section 313 Toxic Chemicals:
 Toxic Release Inventory (TRI) Chemical List:
Not listed

CAA 112(r) Regulated Chemicals for Accidental Release Prevention:
Not listed

CERCLA: Hazardous Substances:
Not listed

TSCA/DSL: Toxic Substance Control Act, Canada DSL and most
 International Chemical Inventories:
Not Listed

2016 CDR TSCA Inv: Not Listed

RCRA: Hazardous Waste Number and Classification:
Not listed or classified

NJ RTK Substance #: 0322

Waste: Not subject to RCRA.

Clean Water Act 311: List of hazardous substances:
Not listed.

US DOT: U.S. Dept. of Transportation:
Not regulated.

FDA:	Subject to use conditions. Calcium hydroxide is generally recognized as safe (GRAS) by FDA 21 CFR, FDA Substance Registration System - FDA UNII PF5DZW74VN
EPA Safer Choice Chemical Ingredients List:	(Calcium Hydroxide – Valid)
FIFRA Inert Ingredients in Pesticide Products:	(Calcium Hydroxide – List 4B Valid)
40 CFR 180: Pesticide Tolerance Exemptions:	(Calcium Hydroxide – Valid)
National Organics Program:	Subject to use conditions. 205.605 (b), 205.601(i), 205.603 (b) Calcium Hydroxide (primary ingredient of this product) permitted for specific uses including plant disease control, and pest control in livestock applications. <i>“Nonagricultural (nonorganic) substances allowed as ingredients in or on processed products labeled as “organic” or “made with organic (specified ingredients or food group(s)).”</i> <i>The following nonagricultural substances may be used as ingredients in or on processed products labeled as “organic” or “made with organic (specified ingredients or food group(s))” only in accordance with any restrictions specified in this section.”</i>
184.1205. PROP 65:	Not listed.

Section 16: Other Information

16. Other Information

16.1 Other Information

Date of last Revision:	10/1/2019
Method:	OSHA, 29 CFR 1910.1200(g) and Appendix D. United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS), third revised edition, United Nations, 2009.

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NOTES:
