



SAFETY DATA SHEET

1. Identification

Product identifier	LATICRETE® PERMACOLOR® Grout
Other means of identification	None.
Recommended use	Grout.
Recommended restrictions	Workers (and your customers or users in the case of resale) should be informed of the potential presence of respirable dust and respirable crystalline silica as well as their potential hazards. Appropriate training in the proper use and handling of this material should be provided as required under applicable regulations.

Manufacturer/Importer/Supplier/Distributor information

Company Name	LATICRETE International
Address	1 Laticrete Park, N Bethany, CT 06524
Telephone	(203)-393-0010
Contact person	Steve Fine
Website	www.laticrete.com
Emergency phone number	Call CHEMTREC day or night USA/Canada - 1.800.424.9300 Mexico - 1.800.681.9531 Outside USA/Canada 1.703.527.3887

2. Hazard(s) identification

Physical hazards	Not classified.	
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 1
	Sensitization, skin	Category 1
	Carcinogenicity	Category 1A
	Reproductive toxicity	Category 1B
	Specific target organ toxicity, repeated exposure	Category 2 (Lung)
Environmental hazards	Not classified.	
Label elements		

Storage	Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Other hazards	None known.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Silica Sand	14808-60-7	55 - 65
Calcium aluminate cement	65997-16-2	20 - 30
Calcium sulfate	7778-18-9	5 - 7
Titanium dioxide	13463-67-7	0 - 8
Portland Cement	65997-15-1	2 - 4
Calcium sulfate hemihydrate	26499-65-0	1 - 2
Lithium Carbonate	554-13-2	0 - 0.25

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

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.
Skin contact	Wash off with soap and plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash 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. Call a physician or poison control center immediately.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Rash. Coughing. Irritant effects. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. IF exposed or concerned: Get medical advice/attention. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	None known.
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	In case of fire and/or explosion do not breathe fumes.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep upwind. Avoid formation of dust. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation.
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Methods and materials for containment and cleaning up

Stop the flow of material, if this is without risk. Sweep or shovel up material and place in a clearly labeled container for waste. Collect dust using a vacuum cleaner. Following product recovery, flush area with water.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage**Precautions for safe handling**

Do not handle until all safety precautions have been read and understood. Minimize dust generation and accumulation. Wear appropriate personal protective equipment. Do not breathe dust. Avoid contact with eyes, skin, and clothing. Provide adequate ventilation. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed. Store in a cool, dry place out of direct sunlight.

8. Exposure controls/personal protection**Occupational exposure limits****US. ACGIH Threshold Limit Values**

Components	Type	Value	Form
Calcium sulfate (CAS 7778-18-9)	TWA	10 mg/m ³	Inhalable fraction.
Portland Cement (CAS 65997-15-1)	TWA	1 mg/m ³	Respirable fraction.
Silica Sand (CAS 14808-60-7)	TWA	0.025 mg/m ³	Respirable fraction.
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m ³	

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value	Form
Calcium sulfate (CAS 7778-18-9)	TWA	10 mg/m ³	
Calcium sulfate hemihydrate (CAS 26499-65-0)	TWA	10 mg/m ³	
Portland Cement (CAS 65997-15-1)	TWA	10 mg/m ³	
Silica Sand (CAS 14808-60-7)	TWA	0.025 mg/m ³	Respirable particles.
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m ³	

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value	Form
Calcium sulfate (CAS 7778-18-9)	TWA	10 mg/m ³	Inhalable
Calcium sulfate hemihydrate (CAS 26499-65-0)	STEL	20 mg/m ³	Total dust.
	TWA	3 mg/m ³	Respirable fraction.
		10 mg/m ³	Total dust.
Portland Cement (CAS 65997-15-1)	TWA	3 mg/m ³	Respirable fraction.
		10 mg/m ³	Total dust.
Silica Sand (CAS 14808-60-7)	TWA	0.025 mg/m ³	Respirable fraction.
Titanium dioxide (CAS 13463-67-7)	TWA	3 mg/m ³	Respirable fraction.
		10 mg/m ³	Total dust.

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value	Form
Calcium sulfate (CAS 7778-18-9)	TWA	10 mg/m ³	Inhalable fraction.

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value	Form
Portland Cement (CAS 65997-15-1)	TWA	1 mg/m3	Respirable fraction.
Silica Sand (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m3	

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value	Form
Calcium sulfate (CAS 7778-18-9)	TWA	10 mg/m3	Inhalable fraction.
Portland Cement (CAS 65997-15-1)	TWA	1 mg/m3	Respirable fraction.
Silica Sand (CAS 14808-60-7)	TWA	0.1 mg/m3	Respirable fraction.
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m3	

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Type	Value	Form
Calcium sulfate (CAS 7778-18-9)	TWA	5 mg/m3	Respirable dust.
		10 mg/m3	Total dust.
Calcium sulfate hemihydrate (CAS 26499-65-0)	TWA	5 mg/m3	Respirable dust.
		10 mg/m3	Total dust.
Portland Cement (CAS 65997-15-1)	TWA	5 mg/m3	Respirable dust.
		10 mg/m3	Total dust.
Silica Sand (CAS 14808-60-7)	TWA	0.1 mg/m3	Respirable dust.
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m3	Total dust.

Biological limit values

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

Exposure guidelines

Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) 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. Provide eyewash station.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Wear safety glasses with side shields (or goggles).

Skin protection**Hand protection**

Wear chemical-resistant, impervious gloves.

Other

Wear appropriate chemical resistant clothing.

Respiratory protection

Wear a dust mask if dust is generated above exposure limits.

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. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties**Appearance****Physical state**

Solid.

Form

Powder.

Color	Colored.
Odor	Not available.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	Not flammable or combustible.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Insoluble
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Dust irritates the respiratory system, and may cause coughing and difficulties in breathing.
Skin contact	Causes skin irritation. Prolonged contact with wet cement/mixture may cause burns.
Eye contact	Causes serious eye damage. Prolonged contact with wet cement/mixture may cause burns.
Ingestion	Swallowing may cause gastrointestinal irritation.

Symptoms related to the physical, chemical and toxicological characteristics	Rash. Coughing. Irritant effects. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Prolonged exposure may cause chronic effects.
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Information on toxicological effects

Acute toxicity	May cause respiratory irritation.
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Components	Species	Test Results
Calcium sulfate (CAS 7778-18-9)		
<u>Acute</u>		
Inhalation		
LC50	Rat	> 3.26 mg/l, 4 Hours
Oral		
LD50	Rat	> 1581 mg/kg
Lithium Carbonate (CAS 554-13-2)		
<u>Acute</u>		
Inhalation		
LC50	Rat	> 2.17 mg/l, 4 Hours
Oral		
LD50	Rat	525 mg/kg
Titanium dioxide (CAS 13463-67-7)		
<u>Acute</u>		
Inhalation		
LC50	Rat	3.43 mg/l, 4 Hours
Oral		
LD50	Rat	> 5000 mg/kg
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye irritation	Causes serious eye damage.	
Respiratory or skin sensitization		
Canada - Alberta OELs: Irritant		
Titanium dioxide (CAS 13463-67-7)	Irritant	
Respiratory sensitization	No data available.	
Skin sensitization	May cause an allergic skin reaction.	
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
Carcinogenicity	May cause cancer. In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However in making the overall evaluation, IARC noted that "carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.) In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore, preventing the onset of silicosis will also reduce the cancer risk..." (SCOEL SUM Doc 94-final, June 2003)	
ACGIH Carcinogens		
Portland Cement (CAS 65997-15-1)	A4 Not classifiable as a human carcinogen.	
Silica Sand (CAS 14808-60-7)	A2 Suspected human carcinogen.	
Titanium dioxide (CAS 13463-67-7)	A4 Not classifiable as a human carcinogen.	
Canada - Alberta OELs: Carcinogen category		
Silica Sand (CAS 14808-60-7)	Suspected human carcinogen.	
Canada - Manitoba OELs: carcinogenicity		
Portland Cement (CAS 65997-15-1)	Not classifiable as a human carcinogen.	
Silica Sand (CAS 14808-60-7)	Suspected human carcinogen.	
Titanium dioxide (CAS 13463-67-7)	Not classifiable as a human carcinogen.	
Canada - Quebec OELs: Carcinogen category		
Silica Sand (CAS 14808-60-7)	Suspected carcinogenic effect in humans.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
Silica Sand (CAS 14808-60-7)	1 Carcinogenic to humans.	
Titanium dioxide (CAS 13463-67-7)	2B Possibly carcinogenic to humans.	

US. National Toxicology Program (NTP) Report on Carcinogens

Silica Sand (CAS 14808-60-7)

Known To Be Human Carcinogen.

Reproductive toxicity	May damage fertility or the unborn child.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	May cause damage to organs (Lung) through prolonged or repeated exposure.
Aspiration hazard	Due to the physical form of the product it is not an aspiration hazard.
Chronic effects	Prolonged or repeated exposure may cause lung injury, including silicosis.
Further information	Inhalation of high concentrations of quartz dust can lead to the lung disease known as silicosis, with cough and shortness of breath.

12. Ecological information

Ecotoxicity Not expected to be harmful to aquatic organisms.

Components	Species	Test Results
Lithium Carbonate (CAS 554-13-2)		
Aquatic		
Fish	LC50 Mummichog (<i>Fundulus heteroclitus</i>)	8.1 mg/l, 96 hours
Persistence and degradability	No data is available on the degradability of this product.	
Bioaccumulative potential	No data available for this product.	
Mobility in soil	The product is not mobile 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	Dispose of contents/container in accordance with local/regional/national/international regulations. Do not contaminate ponds, waterways or ditches with chemical or used container.
Local disposal regulations	Dispose of in accordance with local 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 of 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	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

TDG

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 the IBC Code This substance/mixture is not intended to be transported in bulk.

15. Regulatory information

Canadian regulations This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

Controlled Drugs and Substances Act

Not regulated.

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Not listed.

Precursor Control Regulations

Not regulated.

International regulations

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto protocol

Not applicable.

Montreal Protocol

Not applicable.

Basel Convention

Calcium sulfate (CAS 7778-18-9)

Calcium sulfate hemihydrate (CAS 26499-65-0)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies 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 country(s).

16. Other information

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Revision date -

Version # 01

References HSDB® - Hazardous Substances Data Bank
Registry of Toxic Effects of Chemical Substances (RTECS)

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