



Safety Data Sheet

According to OSHA Communication Standard, 29 CFR 1910.1200

CTS 24/6 Concrete Mix

SECTION 1: Identification

Product identifier

Product name: CTS 24/6 Concrete Mix

Product code: 130110060

Recommended use of the product and restriction on use

Relevant identified uses: Commercial use for concrete repair applications

Uses advised against: Not determined or not applicable.

Reasons why uses advised against: Not determined or not applicable.

Manufacturer or supplier details

Manufacturer:

United States

CTS Cement Manufacturing Corporation

12442 Knott St.

Garden Grove, CA 92841

800-929-3030

info@ctscement.com

Emergency telephone number:

United States

INFOTRAC 1-800-535-5053

International

INFOTRAC 1-352-323-3500

SECTION 2: Hazard(s) identification

GHS classification:

Acute toxicity Oral, category 4

Acute toxicity Dermal, category 4

Respiratory sensitization, category 1

Skin corrosion/irritation, category 2

Serious eye damage, category 1

Specific target organ toxicity - single exposure, category 3, respiratory irritation

Skin Sensitivity, category 1

Carcinogenicity, category 1A

Label elements

Hazard Pictograms:



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CTS 24/6 Concrete Mix**Signal word:** Danger**Hazard statements:**

- H302 Harmful if swallowed.
- H312 Harmful in contact with skin.
- H314 Causes severe skin burns and eye damage
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H335 May cause respiratory irritation.
- H350 May cause cancer.

Precautionary statements:

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P260 Do not breathe dust.
- P261 Avoid breathing dust.
- P264 Wash hands thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area.
- P272 Contaminated work clothing should not be allowed out of the workplace
- P280 Wear protective gloves, protective clothing, eye protection, face protection.
- P284 In case of inadequate ventilation: Use respiratory protection.
- P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center/physician.
- P308+P313 If exposed or concerned: Get medical advice/attention.
- P302+P352 IF ON SKIN: Wash with plenty of soap and water. P332+P313 If skin irritation occurs: Get medical advice/attention
- P303+P353+P361 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. Contact center/physician if needed.
- P305+P351+P338+P310 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 or doctor.
- P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P312 Call a poison center or doctor if you feel unwell.
- P313+P332 If skin irritation occurs: Get medical advice/attention.
- P362 Take off contaminated clothing and water before reuse.
- P403+P233 Store in a well-ventilated place. Store in an appropriate container or containment.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local, regional, national and international regulations.

Hazards not otherwise classified: Exposure may aggravate pre-existing eye, skin, or respiratory conditions. Individuals with long disease (bronchitis, emphysema, COPD, pulmonary disease) or sensitivity to hexavalent chromium can be aggravated by exposure.

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CTS 24/6 Concrete Mix**SECTION 3: Composition/information on ingredients**

Identification	Name	Weight %
CAS number: 65997-15-1	Portland cement	10-30
CAS number: 12004-14-7	Aluminum calcium oxide sulfate	0.1-3.0
CAS number: 10034-77-2	Dicalcium silicate	0.1-10
CAS number: 1317-65-3	Calcium carbonate	3-10
CAS number: 7778-18-9; 13397-24-5	Calcium sulfate	1-12
CAS number: 14808-60-7	Total Silica, crystalline quartz	30-80

Additional Information:

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of the OSHA Hazard Communication Standard (29 CFR §1910.1200).

*Cement is made from materials mined from the earth and processed using energy provided by fuels. Additional materials, such as fly ash, kiln dust, and slag may be introduced into the cement manufacturing process. Trace amounts of naturally occurring, potentially harmful chemicals might be detected during chemical analysis. Trace constituents may include, but are not limited to, free crystalline silica, organic compounds, magnesium, potassium, sodium oxides, heavy metals including cadmium, hexavalent chromium, nickel, and lead. Other trace constituents may include calcium oxide (also known as free lime or quick lime) and organic compounds from grinding aids such as amine acetate salts, glycols, and 1,2-ethanediol.

SECTION 4: First aid measures**Description of first aid measures****General notes:**

If exposed or concerned: Call a poison center or doctor. Obtain SDS for informational purposes.

After inhalation:

If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor if you feel unwell. If exposed or concerned: Call a poison center or doctor.

After skin contact:

Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice or attention. Take off contaminated clothing and wash it before reuse.

After eye contact:



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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.

After swallowing:

If swallowed, DO NOT induce vomiting unless told to do so by a physician or poison control center. Rinse mouth with water. Never give anything by mouth to an unconscious person. If exposed or concerned: Call a poison center or doctor.

Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:

SKIN CONTACT: Exposure may cause irritation. Symptoms include redness, itching, burning and inflammation. Exposure to wet material may cause severe skin burns and irreversible tissue damage.

EYE CONTACT: Exposure may cause serious eye damage. Symptoms include irritation, redness, pain, inflammation, itching, burning, tearing, corneal damage and loss of vision.

INHALATION: Inhalation of dust may irritate the nose, throat and respiratory tract. Symptoms include cough, sore throat, shortness of breath and inflammation of the mucous membranes lining the respiratory tract.

INGESTION: Ingestion is an improbable route of exposure. Ingestion of wet material would cause corrosive burns to mouth, esophagus and stomach. Symptoms include pain, tissue damage, nausea and vomiting.

Delayed symptoms and effects:

Effects are dependent on exposure (dose, concentration, contact time).

Exposure to respirable silica may cause cancer and damage to organs. Prolonged and/or repeated exposure to silica-containing dust may cause lung damage and a lung disease called silicosis. Silicosis is a progressive and disabling lung disease that causes pulmonary fibrosis, chronic obstructive pulmonary disorder (COPD) and lung cancer. Silicosis lowers the immune system and makes an individual more susceptible to tuberculosis. Silicosis may also cause renal disease and scleroderma – a disease affecting skin, blood vessels, joints and skeletal muscles. Symptoms of silicosis may include (but are not limited to) shortness of breath, difficulty breathing with or without exertion; coughing; diminished work capacity; diminished chest expansion; reduction of lung volume; right heart enlargement and/or failure. Not all individuals with silicosis will exhibit symptoms of the disease. However, silicosis can be progressive, and symptoms can appear at any time, even years after exposures have ceased.

Immediate medical attention and special treatment

Specific treatment:

In case of eye contact, seek prompt medical attention while rinsing is continued. Exposure to wet material requires prompt medical treatment.

Notes for the doctor:

Treat symptomatically

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media:

Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition.

Unsuitable extinguishing media:

Not determined or not applicable.

Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors.

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Use typical firefighting equipment, self-contained breathing apparatus, special tightly sealed suit.

Special precautions:

Carbon monoxide and carbon dioxide may form upon combustion Heating causes a rise in pressure, risk of bursting and combustion.

SECTION 6: Accidental release measures**Personal precautions, protective equipment and emergency procedures:**

Ensure adequate ventilation. Ensure air handling systems are operational. Wear protective eyewear, gloves, and clothing.

Environmental precautions:

Should not be released into the environment. Prevent from reaching drains, sewer or waterway.

Methods and material for containment and cleaning up:

Wear protective gloves, protective clothing, eye protection, face protection. Sweep or scoop up solid material while minimizing dust generation. Dispose of contents / container in accordance with local regulations.

Reference to other sections:

Not determined or not applicable.

SECTION 7: Handling and storage**Precautions for safe handling:**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust, mist, vapors, or spray. Wash hands thoroughly after handling. Use only outdoors or in a well-ventilated area.

Do not eat, drink, smoke or use personal products when handling chemical substances. Conditions for safe storage, including any incompatibilities:

Keep container tightly sealed. Keep container dry. Store locked up. Store in a cool, well-ventilated area. Water/moisture exposure will cause material to generate heat. Keep away from strong acids and oxidizers.

SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
ACGIH	Portland cement	65997-15-1	ACGIH TLV TWA 1 mg/m ³
	Calcium carbonate (limestone)	1317-65-3	ACGIH TLV TWA 10 mg/m ³ (total dust)
	Calcium sulfate	7778-18-9	ACGIH TLV-TWA 10 mg/m
	Silica, crystalline quartz (respirable)	14808-60-7	ACGIH TLV TWA 0.025 mg/m ³ (Respirable fraction)
	Total silica, crystalline quartz	14808-60-7	ACGIH TLV TWA 0.025000 mg/m ³
OSHA	Portland cement	65997-15-1	OSHA 8 hr TWA PEL: 15 mg/m ³ (total dust), 5 mg/m ³ (respirable)

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			fraction)
	Calcium carbonate (limestone)	1317-65-3	OSHA 8 hr TWA PEL: 10 mg/m ³ (total dust), 5 mg/m ³ (respirable fraction)
	Calcium sulfate	7778-18-9	OSHA 8 hr TWA PEL: 15 mg/m ³ (total dust), 5 mg/m ³ (respirable fraction)
	Silica, crystalline quartz (Respirable)	14808-60-7	OSHA 8-hour TWA PEL: 0.025 mg/m ³ (Respirable fraction, action level)
	Silica, crystalline quartz (Respirable)	14808-60-7	OSHA 8-hour TWA PEL: 0.05 mg/m ³ (Respirable fraction, exposure limit level)
	Total Silica, crystalline quartz	14808-60-7	TWA 30.000000 mg/m ³ / %SiO ₂ +2 USA. OSHA
	Total Silica, crystalline quartz	14808-60-7	TWA 0.050000 mg/m ³ USA. NIOSH
NIOSH	Portland cement clinker	65997-15-1	NIOSH TWA 10 mg/m ³ (total dust), 5 mg/m ³ (respirable fraction)
	Calcium carbonate (as limestone)	1317-65-3	NIOSH TWA 10 mg/m ³ (total dust), 5 mg/m ³ (respirable fraction)
	Calcium sulfate	7778-18-9	NIOSH TWA 10 mg/m ³ (total dust), 5 mg/m ³ (respirable fraction)
	Silica, crystalline quartz (Respirable)	14808-60-7	NIOSH TWA 0.05 mg/m ³

Biological limit values:

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

Information on monitoring procedures:

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. Biological monitoring may also be appropriate for some substances.

Appropriate engineering controls:

Emergency eyewash fountains and safety showers should be available in the immediate vicinity of use or handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

Personal protection equipment**Eye and face protection:**

Safety goggles or glasses, or appropriate eye protection.

Skin and body protection:

Select glove material impermeable and resistant to the substance. Wear appropriate clothing to prevent any possibility of skin contact. Structural firefighters' protective clothing will only provide limited protection.

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If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

General hygienic measures:

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust, mist, vapors, or spray. Wash hands thoroughly after handling. Use only outdoors or in a well-ventilated area. Do not eat, drink, smoke or use personal products when handling chemical substances.

SECTION 9: Physical and chemical properties**Information on basic physical and chemical properties**

Appearance	Solid; gray powder
Odor	Low
Odor threshold	Not available
pH	11 - 14 when wet
Melting point/freezing point	Not available
Initial boiling point/range	>1832°F (1000°C)
Flash point (closed cup)	Not available
Evaporation rate	Not applicable
Flammability (solid, gas)	Not available
Upper flammability/explosive limit	Not available
Lower flammability/explosive limit	Not available
Vapor pressure	Not applicable
Vapor density	Not applicable
Bulk Density	60 lb/ft ³
Relative density	2.7 - 3.1 at 20°C
Solubilities	Slightly soluble
Partition coefficient (n-octanol/water)	Not available
Auto/Self-ignition temperature	Not available
Decomposition temperature	Not applicable
Dynamic viscosity	Not applicable
Kinematic viscosity	Not applicable
Explosive properties	Not available
Oxidizing properties	Not available

Other information

VOC (Weight %)	0 g/l when mixed with water
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Reacts with water to form calcium hydroxide which can irritate or damage skin and eyes. Do not mix with other chemicals. Does not react under normal conditions of use and storage.

Chemical stability:

Stable under normal conditions of use and storage.

Possibility of hazardous reactions:

None under normal conditions of use and dry storage.

Conditions to avoid:

Strong acids, aluminum metal, and oxidizers.

Incompatible materials:

None known.

Hazardous decomposition products:

None known.

SECTION 11: Toxicological information**Information on toxicological effects:****Acute toxicity**

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Skin corrosion/irritation Assessment:

Causes severe skin irritation. Severe burns possible.

Serious eye damage/irritation Assessment:

Causes serious eye damage

Respiratory or skin sensitization Assessment:

Allergic skin reaction, respiratory tract irritation.

Carcinogenicity Assessment:

May cause cancer

Portland Cement (65997-15-1)
IDLH=5000 mg/m³

Calcium Carbonate (1317-65-3)
LD50 oral rat=6450 mg/kg

International Agency for Research on Cancer (IARC):

Name	Classification
Silica, crystalline quartz (Respirable)	Group 1 - Carcinogenic to humans

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Name	Classification
Silica, crystalline quartz (Respirable)	Known to be human carcinogens

Germ cell mutagenicity**Assessment:** Based on available data, the classification criteria are not met.**Reproductive toxicity****Assessment:** Based on available data, the classification criteria are not met.**Specific target organ toxicity (single exposure)****Assessment:**

May cause respiratory irritation

Specific target organ toxicity (repeated exposure)**Assessment:**

May cause damage to organs (lungs) through prolonged or repeated exposure

Name	Result
Silica, crystalline quartz (Respirable)	Causes damage to organs (lungs) through prolonged or repeated exposure via inhalation.

Aspiration toxicity**Assessment:** Based on available data, the classification criteria are not met.**Information on likely routes of exposure:**

Eye and skin contact, inhalation, and ingestion.

Symptoms related to the physical, chemical and toxicological characteristics:

Skin Contact: Burns, irritation, blisters, rash, pain, and discomfort.

Eye Contact: Burn, eye damage, redness, excessive watering of eye.

Ingestion: Nausea, vomiting.

Inhalation: Irritation of respiratory tract.

Other information:

No data available.

SECTION 12: Ecological information**Acute (short-term) toxicity****Assessment:** Based on available data, the classification criteria are not met.**Product data:** No data available.**Substance data:** No data available.**Chronic (long-term) toxicity****Assessment:** Based on available data, the classification criteria are not met.**Product data:** No data available.

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Substance data: No data available.

Persistence and degradability

Product data: No data available.

Substance data: No data available.

Bioaccumulative potential

Product data: No data available.

Substance data: No data available.

Mobility in soil

Product data: No data available.

Substance data: No data available.

Other adverse effects: No data available.

SECTION 13: Disposal considerations**Disposal methods:**

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities. Dispose of contents/container in accordance with local, regional, national, and international regulations.

SECTION 14: Transport information**United States Transportation of dangerous goods (49 CFR DOT)**

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Maritime Dangerous Goods (IMDG)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None

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Environmental hazards	None
Special precautions for user	None

SECTION 15: Regulatory information**United States regulations Inventory listing (TSCA):**

12004-14-7	Aluminum calcium oxide sulfate	Listed
10034-77-2	Dicalcium silicate	Listed
7778-18-9	Calcium sulfate	Listed
1317-65-3	Calcium carbonate	Listed
65997-15-1	Portland cement	Listed
14808-60-7	Silica, crystalline quartz	Listed

Significant New Use Rule (TSCA Section 5): None of the ingredients are listed.

Export notification under TSCA Section 12(b): None of the ingredients are listed.

SARA Section 302 extremely hazardous substances: None of the ingredients are listed. None of the ingredients are listed.

SARA Section 313 toxic chemicals: None of the ingredients are listed.

CERCLA: None of the ingredients are listed.

RCRA: None of the ingredients are listed.

Section 112(r) of the Clean Air Act (CAA): None of the ingredients are listed.

Massachusetts Right to Know:

7778-18-9	Calcium sulfate	Listed
65997-15-1	Portland cement	Listed
1317-65-3	Limestone (calcium carbonate)	Listed
14808-60-7	Silica, crystalline quartz (Respirable)	Listed

New Jersey Right to Know:

1305-78-8	Calcium oxide	Listed
14808-60-7	Silica, crystalline quartz (Respirable)	Listed

New York Right to Know:

None-listed

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65997-15-1	Portland cement	Listed
7778-18-9	Calcium sulfate	Listed
1317-65-3	Limestone (calcium carbonate)	Listed
14808-60-7	Silica, crystalline quartz (Respirable)	Listed

California Proposition 65:

⚠ WARNING: Cancer and Reproductive Harm – www.P65Warning.ca.gov.

SECTION 16: Other information**Abbreviations and Acronyms:**

ACGIH: American Conference of Governmental Industrial Hygienists
 ADR: European Road Transport
 AU: Australia
 CA: Canada
 CAS: Chemical Abstracts Service
 CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act
 CN: China
 CPR: Controlled Products Regulations
 DFG: Deutsche Forschungsgemeinschaft
 DOT: Department of Transportation
 DSL: Domestic Substances List
 EEC: European Economic Community
 ECHA: European Chemicals Agency
 EINECS: European Inventory of Existing Commercial Chemical Substances
 EPA: Environmental Protection Agency
 EU: European Association
 IARC: International Agency for Research on Cancer
 IMDG: International maritime dangerous goods code
 IATA: International Air Transport Association
 ICAO: International Civil Aviation Organization
 JP: Japan
 COD: Chemical Oxygen Demand
 BOD5: 5-day biochemical oxygen demand
 BCF: Bioconcentration factor
 LD50: Lethal Dose 50
 CL50: Lethal Concentration 50
 EC50: Effective concentration 50
 Log-POW: Octanol-water partition coefficient
 Koc: Partition coefficient of organic carbon
 Know: Octanol/water partition coefficient
 KR: Korea
 LEL: Lower Explosive Limit
 UEL: Upper Explosive Limit
 NIOSH: National Institute for Occupational Safety and Health Administration
 PH: Philippines
 RCRA: Resource Conservation and Recovery Act



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OSHA: Occupational Safety and Health Administration
RID: European Rail Transport
SARA: Superfund Amendments and Reauthorization Act
STEL: Short Term Exposure Limit
TDG: Transportation of Dangerous Goods
TSCA: Toxic Substances Control Act
TWA: Time Weighted Average
US: United States

Disclaimer:

This product has been classified in accordance with OSHA HCS 2012 guidelines. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

NFPA: 3-0-0

HMIS: 3-0-0*

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End of Safety Data Sheet