SAFETY DATA SHEET

1. Identification

Product identifier Rapid Set TRU PC Polished Concrete

Other means of identification

Product code 180010050

Recommended use Industrial use.

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 CTS Cement Manufacturing Corporation

Address 11065 Knott Ave Suite A

Cypress, CA 90630

United States

Telephone 1-800-929-3030

E-mail jsalkowski@ctsceement.com / info@ctsceement.com

Contact person John Salkowski

Emergency telephone number 1-800-929-3030 (8 AM - 5 PM)

2. Hazard(s) identification

Physical hazards Not classified.

Health Hazards

Skin corrosion/irritation Category 2

Serious eye damage/eye irritation Category 1

Carcinogenicity Category 1A

Reproductive toxicity Category 1B

Specific Target Organ Toxicity, Single Exposure Category 3 respiratory tract irritation

Specific Target Organ Toxicity, Repeated Exposure Category 2 (Lungs)

OSHA defined hazards Not classified.

Label elements

Signal word Danger

Hazard statement Causes skin irritation. Causes serious eye damage. May cause cancer. May cause respiratory irritation. May cause damage to organs (Lungs) through prolonged or repeated exposure.

Precautionary statement

Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust. Wash thoroughly after handling. Use in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

Response If exposed or concerned: Get medical advice/attention. 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/director. If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/director if you feel unwell.

Storage Keep container tightly closed and store in a dry location.
Disposal
Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)
None known.

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Sulfoaluminate Cement</td>
<td>960375-09-1</td>
<td>20-40</td>
</tr>
<tr>
<td>Silica, quartz</td>
<td>14808-60-7</td>
<td>40-56</td>
</tr>
<tr>
<td>Amorphous Silica; Silica dioxide</td>
<td>61790-53-2</td>
<td>10-18</td>
</tr>
<tr>
<td>Limestone</td>
<td>1317-65-3</td>
<td>0.1-8</td>
</tr>
<tr>
<td>Calcium Hydroxide; Slaked Lime; Hydrated Lime</td>
<td>1305-62-0</td>
<td>0.1-3</td>
</tr>
<tr>
<td>Anhydrous Calcium Sulfate</td>
<td>7778-18-9</td>
<td>0.5-2</td>
</tr>
<tr>
<td>Lithium Carbonate</td>
<td>554-13-2</td>
<td>&lt;0.3</td>
</tr>
</tbody>
</table>

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
If dust from the material is inhaled, remove the affected person immediately to fresh air. Call a physician if symptoms develop or persist.

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.

Ingestion
Immediately rinse mouth and drink plenty of water. Call an ambulance and take these instructions. 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. Upper respiratory tract irritation. Coughing. Discomfort in the chest. Shortness of breath. Wheezing. Skin irritation.

Indication of immediate medical attention and special treatment needed
Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

General information
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. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media
Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media
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
Move containers from fire area if you can do so without risk.

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

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 people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe 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
Stop the flow of material, if this is without risk. If sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the product. Collect dust using a vacuum cleaner. Minimize dust generation and accumulation. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.

Environmental precautions
Avoid discharge into drains or water courses.

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

Conditions for safe storage, including any incompatibilities
Keep container tightly closed and store in a dry location. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anhydrous Calcium Sulfate (CAS 7778-18-9)</td>
<td>PEL</td>
<td>5 mg/m³</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td>Calcium Hydroxide; Slaked Lime; Hydrated Lime (CAS 1305-62-0)</td>
<td>PEL</td>
<td>15 mg/m³</td>
<td>Total dust.</td>
</tr>
<tr>
<td>Limestone (CAS 1317-65-3)</td>
<td>PEL</td>
<td>15 mg/m³</td>
<td>Total dust.</td>
</tr>
</tbody>
</table>

US. OSHA Table Z-3 (29 CFR 1910.1000)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amorphous Silica; Silica dioxide (CAS 61790-53-2)</td>
<td>TWA</td>
<td>0.8 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Silica, quartz (CAS 14808-60-7)</td>
<td>TWA</td>
<td>0.3 mg/m³</td>
<td>Total dust.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.1 mg/m³</td>
<td>Respirable.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.4 mppcf</td>
<td>Respirable.</td>
</tr>
</tbody>
</table>

US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anhydrous Calcium Sulfate (CAS 7778-18-9)</td>
<td>TWA</td>
<td>10 mg/m³</td>
<td>Inhalable fraction. TWA 5 mg/m³</td>
</tr>
<tr>
<td>Calcium Hydroxide; Slaked Lime; Hydrated Lime (CAS 1305-62-0)</td>
<td>TWA</td>
<td>0.025 mg/m³</td>
<td>Respirable fraction.</td>
</tr>
</tbody>
</table>

US. NIOSH: Pocket Guide to Chemical Hazards

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amorphous Silica; Silica dioxide (CAS 61790-53-2)</td>
<td>REL</td>
<td>6 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>
Components | Type | Value | From
--- | --- | --- | ---
Anhydrous Calcium Sulfate (CAS 7778-18-9) | TWA | 6 mg/m³ | Respirable.
Calcium Hydroxide; Slaked Lime; Hydrated Lime (CAS 1305-62-0) | TWA | 5 mg/m³ | Respirable.
Limestone (CAS 1317-65-3) | TWA | 5 mg/m³ | Respirable.
Silica, quartz (CAS 14808-60-7) | TWA | 0.05 mg/m³ | Respirable 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. Ventilation should be sufficient to effectively remove and prevent buildup of any dusts or fumes that may be generated during handling or thermal processing. If engineering measures are not sufficient to maintain concentrations of dust particulates below the Occupational Exposure Limit (OEL), suitable respiratory protection must be worn. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment
- **Eye/face protection**
  Wear safety glasses or safety goggles unless full face respirator is in use.
- **Skin protection**
  - **Hand protection**
    Wear appropriate chemical resistant gloves.
  - **Other**
    Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
- **Respiratory protection**
  Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits.
- **Thermal hazards**
  Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations
When using, do not eat, drink or smoke. 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. Observe any medical surveillance requirements.

9. Physical and chemical properties

**Appearance**
- **Physical state**
  Solid.
- **Form**
  Powder.
- **Color**
  Gray.
- **Odor**
  Low.
- **Odor threshold**
  Not available.
- **pH**
  11 – 12 when wet
- **Melting point/freezing point**
  Not applicable.
- **Initial boiling point and boiling range**
  Not applicable.
- **Flash point**
  Not applicable.
- **Evaporation rate**
  Not applicable.
- **Flammability (solid, gas)**
  Non combustible.
- **Upper/lower flammability or explosive limits**
  - **Flammability limit – lower (%)**
    Not applicable.
  - **Flammability limit – upper (%)**
    Not applicable.
Vapor pressure Not applicable.
Vapor density Not applicable.
Relative density 2.98 @ 20°C
Solubility(ies)
  Solubility (water) Not available.
Partition coefficient (n-octanol/water) Not applicable.
Auto-ignition temperature Not applicable.
Decomposition temperature 2462 °F (1350 °C)
Viscosity Not applicable.
Other information
  Bulk density 60 lb/ft³
  Partition coefficient (oil/water) Not applicable.
  VOC (Weight %) 8 g/l when mixed with water

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 Avoid temperatures exceeding the decomposition temperature. Contact with incompatible materials. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).
Incompatible materials Powerful oxidizers.

11. Toxicological information
Information on likely routes of exposure
  Inhalation May cause damage to organs through prolonged or repeated exposure by inhalation. Inhalation of dusts may cause respiratory irritation. Prolonged inhalation may be harmful.
  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 Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Upper respiratory tract irritation. Coughing. Discomfort in the chest. Shortness of breath. Wheezing. Skin irritation.

Information on toxicological effects
Acute toxicity May cause respiratory irritation.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anhydrous Calcium Sulfate (CAS 7778-18-9)</td>
<td>Acute</td>
<td></td>
</tr>
<tr>
<td>Inhalation</td>
<td>Rat</td>
<td>&gt; 3.26 mg/l, 4 Hours</td>
</tr>
<tr>
<td>Oral</td>
<td>Mouse</td>
<td>4704 mg/kg</td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>&gt; 1581 mg/kg</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Causes skin irritation.</td>
<td></td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Causes serious eye damage.</td>
<td></td>
</tr>
<tr>
<td>Respiratory or skin sensitization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respiratory sensitization</td>
<td>No data available.</td>
<td></td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>No data available.</td>
<td></td>
</tr>
</tbody>
</table>
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) According to the current state of the art, worker protection against silicosis can be consistently assured by respecting the existing regulatory occupational exposure limits. Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled.

IARC Monographs. Overall Evaluation of Carcinogenicity
Amorphous Silica; Silica dioxide (CAS 61790-53-2) Not classifiable as to carcinogenicity to humans.
Silica, quartz (CAS 14808-60-7) Carcinogenic to humans.

NTP Report on Carcinogens
Silica, quartz (CAS 14808-60-7) Known To Be Human Carcinogen.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not listed.

Reproductive toxicity
May damage fertility or the unborn child.
Specific target organ toxicity - single exposure
May cause respiratory irritation.
Specific target organ toxicity - repeated exposure
May cause damage to organs (Lungs) 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. May cause skin disorders if contact is repeated or prolonged.

12. Ecological information

Ecotoxicity
The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability
No data is available on the degradability of this product.

Bioaccumulative potential
No data available.

Mobility in soil
No data available.

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. 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 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

DOT
Not regulated as dangerous goods.
15. Regulatory information

**US federal regulations**

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

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

Not regulated.


Not listed.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Not listed.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

- **Hazard categories**
  - Immediate Hazard - Yes
  - Delayed Hazard - Yes
  - Fire Hazard - No
  - Pressure Hazard - No
  - Reactivity Hazard - No

  **SARA 302 Extremely hazardous substance**
  - Not listed.

  **SARA 311/312 Hazardous chemical**
  - Yes

  **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 (SDWA)**
  - Not regulated.

**US state regulations**

- **WARNING:** This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

**US. Massachusetts RTK - Substance List**

- Amorphous Silica; Silica dioxide (CAS 61790-53-2)
- Anhydrous Calcium Sulfate (CAS 7778-18-9)
- Calcium Hydroxide; Slaked Lime; Hydrated Lime (CAS 1305-62-0)
- Limestone (CAS 1317-65-3)
- Lithium Carbonate (CAS 554-13-2)
- Silica, quartz (CAS 14808-60-7)

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

- Amorphous Silica; Silica dioxide (CAS 61790-53-2)
- Anhydrous Calcium Sulfate (CAS 7778-18-9)
- Calcium Hydroxide; Slaked Lime; Hydrated Lime (CAS 1305-62-0)
- Limestone (CAS 1317-65-3)
- Lithium Carbonate (CAS 554-13-2)
- Silica, quartz (CAS 14808-60-7)

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

- Amorphous Silica; Silica dioxide (CAS 61790-53-2)
- Anhydrous Calcium Sulfate (CAS 7778-18-9)
- Calcium Hydroxide; Slaked Lime; Hydrated Lime (CAS 1305-62-0)
- Limestone (CAS 1317-65-3)
Silica, quartz (CAS 14808-60-7)

US. Rhode Island RTK
Lithium Carbonate (CAS 554-13-2)

US. California Proposition 65

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance
Lithium Carbonate (CAS 554-13-2)
Silica, quartz (CAS 14808-60-7)

International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*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, including date of preparation or last revision

Issue date 04-September-2014
Revision date -
Version # 01

HMIS® ratings
Health: 3*
Flammability: 0
Physical hazard: 0

Disclaimer
CTS Cement Manufacturing Corporation 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.