

1 IDENTIFICATION

Product identifier	Rapid Set Concrete Resurfacer
Other means of identification	
Product code	193010025, 193010050, 193012000
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. 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	12442 Knott St. Garden Grove, CA 90064 United States
Telephone	1-800-929-3030
E-mail	info@ctscement.com
Contact person	Safety Officer
Emergency telephone number	1-800-929-3030 (8 AM - 5 PM)

2 HAZARDS IDENTIFICATION

Physical hazards	Not classified	
Health Hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 1
	Carcinogenicity	Category 1A
	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		
Pictogram(s):		
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/doctor. 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/doctor if you feel unwell.
Storage	Keep container tightly closed. Store in dry location.
Disposal	Dispose of contents/container in accordance with local/regional/national /international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.

3 COMPOSITIONS/INFORMATION ON INGREDIENTS

Mixtures

Chemical name	CAS number	Concentration
Calcium Sulfoaluminate Cement	960375-09-1	25-70
Silica Sand	14808-60-70	30-50
Iron Oxide	1309-37-1	0-1
Methanal	50-00-0	0-0.05

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.
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	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Firefighting 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	Store in original tightly closed container. Store in 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-3 (29 CFR 1910.1000)

Components	Type	Value	Form
Silica Quartz (CAS 14808-60-7)	TWA	0.3 mg/m ³	Total dust
	TWA	0.1 mg/m ³	Respirable fraction
	TWA	2.4 mppcf	Respirable fraction
Methanal (CAS 50-00-0)	STEL	2 ppm	Respirable fraction
	TWA	0.75 ppm	Respirable fraction

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Silica Quartz (CAS 14808-60-7)	TWA	0.025 mg/m ³	Respirable fraction
Methanal (CAS 50-00-0)	CLV	0.3 ppm	Respirable fraction

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Silica Quartz (CAS 14808-60-7)	TWA	0.05 mg/m ³	Respirable fraction
Methanal (CAS 50-00-0)	TWA	0.016 ppm	Respirable fraction

Biological limit values

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

Exposure guidelines

Occupational exposure to nuisance dust (total and respirable) 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.

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)	Not 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	2.7 – 3.1 @ 20°C
Solubility(ies)	
Solubility (water)	Not available
Partition coefficient (n-octanol/water)	No applicable information available
Decomposition temperature	2460 °F (1350 °C)

Viscosity	Not applicable
Other information	
Bulk density	60 lb/ft ³
Partition coefficient (oil/water)	Not applicable
VOC (weight %)	0 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). Avoid humidity.
Incompatible materials	Powerful oxidizers.
Hazardous decomposition products	
Decomposition products	Carbon oxides. Sulfur oxides. Silicium oxide.
Thermal decomposition	No decomposition if stored and handled as prescribed/indicated

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	May cause skin irritation. Prolonged contact with wet cement/mixture may cause burns.
Eye contact	May cause 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.
Skin corrosion/irritation	May cause skin irritation.

Serious eye damage/eye irritation	Causes serious eye damage.
Respiratory or skin sensitization	
Respiratory sensitization	Based on available Data, the classification criteria are not met.
Skin sensitization	Based on available Data, the classification criteria are not met.
Germ cell mutagenicity	Based on available Data, the classification criteria are not met.
Carcinogenicity	<p>May cause cancer.</p> <p>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.</p>
IARC Monographs. Overall Evaluation of Carcinogenicity	<p>NTP listed carcinogen.</p> <p>Silica, quartz (CAS 14808-60-7) 1 Carcinogenic to Humans</p> <p>Methanal (CAS 50-00-0) 1 Carcinogenic to Humans</p> <p>The International Agency for Research on Cancer (IARC) has classified methanol as a Group 1 (known) human carcinogen based on epidemiological evidence linking methanol exposure to occurrence of nasopharyngeal cancer and leukemia. Current regulatory information is provided in this SDS. No adverse health effects are anticipated if recommended personal protective equipment and industrial hygiene practices are used.</p>
NTP Report on Carcinogens	<p>Silica, quartz (CAS 14808-60-7) Known to be human carcinogen</p> <p>Methanal (CAS 50-00-0) Known to be human carcinogen</p>
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	Not listed
Reproductive toxicity	May damage fertility to unborn children
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. May cause skin sensitization in hypersensitive persons.

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.

ACUTE TOXICITY TO FISH: COMPONENTS

Components	Species	Test Results
Methanal	LEUCISCUS IDUS	LC50 (48 HRS) > 560 mg/l

ACUTE TOXICITY TO AQUATIC INVERTEBRATES: COMPONENTS

Components	Species	Test Results
Methanal	DAPHNIA MAGNA	EC50 (48 HRS) > 33.1 mg/l

TOXICITY TO BACTERIA: COMPONENTS

Components	Species	Test Results
Methanal	BACTERIUM	EC10: 1800mg/l

Persistence and degradability

No data available.

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

USDOT	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	Not applicable

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.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed

CERCLA Hazardous Substance List (40 CFR 302.4)

<u>CERCLA RQ</u>	<u>CAS Number</u>	<u>Chemical name</u>
100 LBS	50-00-0	Methanal

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 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

US. Massachusetts RTK – Substance List

Chemical name	CAS number	Concentration
Silica, quartz	14808-60-7	30-50%
Methanal	50-00-0	<= 0.05%

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

Chemical name	CAS number	Concentration
Silica, quartz	14808-60-7	30-50%
Methanal	50-00-0	<= 0.05%

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

Chemical name	CAS number	Concentration
Silica, quartz	14808-60-7	30-50%
Methanal	50-00-0	<= 0.05%

US. California Proposition 65

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Silica, quartz (CAS 14808-60-7)

Methanal (CAS 50-00-0)

WARNING

CANCER and REPRODUCTIVE HARM - www.P65Warnings.ca.gov

International Inventories

Country(s) or region	Inventory name	On inventory (yes/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, INCLUDING DATE OF PREPARATION OF LAST REVISION

Issue date	4 June 2017
Revision date	4 June 2018
Version #	04
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.