



### Safety Data Sheet

According to OSHA Communication Standard, 29 CFR 1910.1200

## V/O Repair Mix

### SECTION 1: Identification

**Product identifier**

**Product name:** V/O Repair Mix

**Product code:** 151010050

**Recommended use of the product and restriction on use**

**Relevant identified uses:** Use for cement 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:**

Skin irritation, category 2

Serious eye damage, category 1

Carcinogenicity, category 1A

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

Specific target organ toxicity - repeated exposure, category 2

**Label elements**

**Hazard**

**Pictograms:**



**Signal word:** Danger

**Hazard statements:**

H315 Causes skin irritation.

**Safety Data Sheet**

According to OSHA Communication Standard, 29 CFR 1910.1200

**V/O Repair Mix**

- H318 Causes serious eye damage.  
 H335 May cause respiratory irritation.  
 H350 May cause cancer (inhalation).  
 H373 May cause damage to lungs through prolonged or repeated exposure by inhalation.

**Precautionary statements:**

- P201 Obtain special instructions before use.  
 P202 Do not handle until all safety precautions have been read and understood.  
 P210 Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.  
 P243 Take precautionary measures against static discharge.  
 P260 Do not breathe dust/fume/gas/mist/vapors/spray.  
 P264 Wash hands/eyes/mouth/skin/clothing thoroughly after handling.  
 P271 Use only outdoors or in a well-ventilated area.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 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.  
 P362 Take off contaminated clothing and wash before reuse  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P310 Immediately call a POISON CENTER or doctor/physician.  
 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/physician if you feel unwell.  
 P405 Store locked up.  
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Hazards not otherwise classified:** None.**SECTION 3: Composition/information on ingredients**

Identification	Name	Weight %
CAS number: 12004-14-7	Aluminum calcium oxide sulfate	1-10
CAS number: 10034-77-2	Dicalcium silicate	10-30
CAS number: 7778-18-9	Calcium sulfate	1-10
CAS number: 14808-60-7	Silica, crystalline quartz	40-70

**Additional Information:**

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld



## Safety Data Sheet

According to OSHA Communication Standard, 29 CFR 1910.1200

### V/O Repair Mix

as a trade secret in accordance with paragraph (i) of the OSHA Hazard Communication Standard (29 CFR §1910.1200).

\*Cement is primarily comprised of calcium compounds with oxides of aluminum, iron, sulfur, and silica. Trace amounts of naturally occurring, potentially harmful chemicals might be detected during chemical analysis. Trace constituents may include, but are not limited to, magnesium, potassium, sodium oxides, and hexavalent chromium.

### SECTION 4: First aid measures

#### Description of first aid measures

##### General notes:

If exposed or concerned: Call a poison center or doctor.

##### 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:

Rinse affected area with soap and water. If symptoms develop or persist, seek medical attention. Take off all contaminated clothing and wash it before reuse. Gently blot or brush away excess product. Wash with plenty of lukewarm, gently flowing water. Get medical advice if skin irritation occurs or you feel unwell.

##### After eye contact:

Rinse/flush exposed eye(s) gently using water for 15-20 minutes. If symptoms develop or persist, seek medical attention. Avoid direct contact and wear chemical protective gloves, if necessary. Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do so. Continue rinsing until medical aid is available. Immediately call a POISON CONTROL CENTER or seek medical attention.

##### 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.

**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:** No information available.

##### 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



## Safety Data Sheet

According to OSHA Communication Standard, 29 CFR 1910.1200

### V/O Repair Mix

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:

Avoid water stream on molten burning material as it may scatter and spread the fire.

#### Specific hazards during fire-fighting:

Combustible dust. Risks of ignition followed by flame propagation or secondary explosions shall be prevented by avoiding accumulation of dust, e.g. on floors and ledges.

#### Special protective equipment for firefighters:

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

#### Special precautions:

Avoid inhalation of dusts.

### SECTION 6: Accidental release measures

#### Personal precautions, protective equipment and emergency procedures:

Avoid dust formation. Ensure adequate ventilation. Avoid inhalation of dust. Avoid skin contact. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. 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 eye wear, gloves, and clothing. Local authorities should be advised if significant spillages cannot be contained.

#### 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 eyewear, gloves and clothing. 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

**Safety Data Sheet**

According to OSHA Communication Standard, 29 CFR 1910.1200

**V/O Repair Mix****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. 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. Avoid dust formation. Non-sparking tools should be used. Take measures to prevent the build up of electrostatic charge. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from fire, sparks and heated surfaces – do not smoke.

**Conditions for safe storage, including any incompatibilities:**

Keep container tightly sealed. Keep container dry. Store locked up. Store in a cool, well-ventilated area.

**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	Silica, crystalline quartz (Respirable)	14808-60-7	ACGIH TLV TWA 0.025 mg/m <sup>3</sup> (Respirable fraction)
	Total Silica, crystalline quartz	14808-60-7	ACGIH TWA 0.025000 mg/m <sup>3</sup>
	Calcium sulfate	7778-18-9	ACGIH TLV-TWA 1 mg/m <sup>3</sup>
United States (OSHA)	Silica, crystalline quartz (Respirable)	14808-60-7	OSHA 8-hour TWA PEL: 0.025 mg/m <sup>3</sup> (Respirable fraction, action level)
	Silica, crystalline quartz (Respirable)	14808-60-7	OSHA 8-hour TWA PEL: 0.05 mg/m <sup>3</sup> (Respirable fraction, exposure limit level)
	Total Silica, crystalline quartz	14808-60-7	TWA 30.000000 mg/m <sup>3</sup> / %SiO <sub>2</sub> +2 USA. OSHA
	Total Silica, crystalline quartz	14808-60-7	TWA 0.050000 mg/m <sup>3</sup> USA. NIOSH
	Calcium sulfate	7778-18-9	OSHA 8 hr TWA PEL: 15 mg/m <sup>3</sup> (total dust), 5 mg/m <sup>3</sup> (respirable fraction)

Country (Legal Basis)	Substance	Identifier	Permissible concentration
NIOSH	Silica, crystalline quartz (Respirable)	14808-60-7	NIOSH TWA 0.05 mg/m <sup>3</sup>
	Calcium sulfate	7778-18-9	NIOSH TWA 10 mg/m <sup>3</sup> (total dust), 5 mg/m <sup>3</sup> (respirable fraction)

**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.

**Safety Data Sheet**

According to OSHA Communication Standard, 29 CFR 1910.1200

**V/O Repair Mix**

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.

**Respiratory protection:**

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:**

Avoid breathing dust. Avoid contact with skin, eyes and clothing. Wash hands before breaks and at the end of work. Wash contaminated clothing before reuse. 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**

<b>Appearance</b>	Solid; gray powder
<b>Odor</b>	Characteristic
<b>Odor threshold</b>	Not available
<b>pH</b>	11 - 12 when wet
<b>Melting point/freezing point</b>	Not available
<b>Initial boiling point/range</b>	Not applicable
<b>Flash point (closed cup)</b>	Not available
<b>Evaporation rate</b>	Not applicable
<b>Flammability (solid, gas)</b>	Not available
<b>Upper flammability/explosive limit</b>	Not available
<b>Lower flammability/explosive limit</b>	Not available
<b>Vapor pressure</b>	Not applicable
<b>Vapor density</b>	Not applicable
<b>Density</b>	Not available
<b>Relative density</b>	2.7 – 3.1 at 20°C
<b>Solubilities</b>	Partially soluble
<b>Partition coefficient (n-octanol/water)</b>	Not available
<b>Auto/Self-ignition temperature</b>	Not available

**Safety Data Sheet**

According to OSHA Communication Standard, 29 CFR 1910.1200

**V/O Repair Mix**

<b>Decomposition temperature</b>	No decomposition if stored and handled as prescribed/indicated
<b>Dynamic viscosity</b>	Not applicable
<b>Kinematic viscosity</b>	Not applicable
<b>Explosive properties</b>	Not available
<b>Oxidizing properties</b>	Not available

**Other information**

<b>VOC (Weight %)</b>	0 g/l when mixed with water
-----------------------	-----------------------------

**SECTION 10: Stability and reactivity****Reactivity:**

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 storage.

**Conditions to avoid:**

Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Avoid accumulation of dusts on surfaces.

**Incompatible materials:**

Powerful oxidizers, acids, bases.

**Hazardous decomposition products:**

No hazardous decomposition products if stored and handled as prescribed/indicated.

**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 is available.**Substance data:** No data is available.**Skin corrosion/irritation****Assessment:** Causes skin irritation.**Product data:** No data is available.**Substance data:**

<b>Name</b>	<b>Result</b>
Dicalcium silicate	Causes skin irritation.

**Serious eye damage/irritation****Assessment:** Causes serious eye damage.**Product data:** No data is available.**Substance data:**

**Safety Data Sheet**

According to OSHA Communication Standard, 29 CFR 1910.1200

**V/O Repair Mix**

Name	Result
Dicalcium silicate	Causes serious eye damage.

**Respiratory or skin sensitization****Assessment:** Based on available data, the classification criteria are not met.**Product data:** No data is available.**Substance data:** No data is available.**Carcinogenicity****Assessment:** May cause cancer.**Product data:** No data is available.**Substance data:**

Name	Species	Result
Silica, crystalline quartz (Respirable)	Not applicable	Component may cause cancer.
Total Silica, crystalline quartz		1 - Group 1: Carcinogenic to humans (Quartz)

**International Agency for Research on Cancer (IARC):**

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

**National Toxicology Program (NTP):**

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.**Product data:** No data is available.**Substance data:** No data is available.**Reproductive toxicity****Assessment:** Based on available data, the classification criteria are not met.**Product data:** No data is available.**Substance data:** No data is available.**Specific target organ toxicity (single exposure)****Assessment:** May cause respiratory irritation**Product data:** No data is available.**Substance data:**

Name	Result
Dicalcium silicate and Calcium Sulfate	May cause respiratory irritation.





### Safety Data Sheet

According to OSHA Communication Standard, 29 CFR 1910.1200

#### V/O Repair Mix

##### Aspiration toxicity

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

**Product data:** No data is available.

**Substance data:** No data is available.

##### Information on likely routes of exposure:

No data is available.

##### Symptoms related to the physical, chemical and toxicological characteristics:

No data is available.

##### Other information:

No data is 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.

**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.

#### SECTION 14: Transport information

##### United States Transportation of dangerous goods (49 CFR DOT)

UN number	Not regulated
-----------	---------------

**Safety Data Sheet**

According to OSHA Communication Standard, 29 CFR 1910.1200

**V/O Repair Mix**

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

**International Maritime Dangerous Goods (IMDG)**

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

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

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

**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.

**Safety Data Sheet**

According to OSHA Communication Standard, 29 CFR 1910.1200

**V/O Repair Mix****Massachusetts Right to Know:**

14808-60-7	Silica, crystalline quartz (Respirable)	Listed
7778-18-9	Calcium sulfate	Listed

**New Jersey Right to Know:**

14808-60-7	Silica, crystalline quartz (Respirable)	Listed
7778-18-9	Calcium sulfate	Listed

**New York Right to Know:**

14808-60-7	Silica, crystalline quartz (Respirable)	Listed
------------	---	--------

**Pennsylvania Right to Know:**

14808-60-7	Silica, crystalline quartz (Respirable)	Listed
7778-18-9	Calcium sulfate	Listed

**California Proposition 65:**

**⚠ WARNING:** Cancer and Reproductive Harm – [www.P65Warning.ca.gov](http://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

**Safety Data Sheet**

According to OSHA Communication Standard, 29 CFR 1910.1200

**V/O Repair Mix**

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  
Kow: 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  
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**Initial preparation date:** 07/14/20**Version #:** 3**Revision Date:** 07/13/22**End of Safety Data Sheet**