

**Ultra-Z, Ultra-Z/C, Ultra-Z/HTC, Ultra-Z/LTC, Ultra-Lite**

Effective Date: 05/01/2015

## 1. IDENTIFICATION

Trade Name and Synonyms: **Ultra-Z, Ultra-Z/C, Ultra-Z/HTC, Ultra-Z/LTC, Ultra-Lite**  
Al<sub>2</sub>O<sub>3</sub> SiO<sub>2</sub>

Chemical Name and Synonyms: Ceramic Fiber Spray Coating

Recommended Use: Refractory applications

Product Information Hotline: 1 (219) 838-0227

Manufacturer/Supplier: ALLTHERM SERVICES, INC.  
9810 Belshaw  
Lowell, IN 46356

## 2. HAZARDS IDENTIFICATION



**HEALTH** \* **1** **FLAMMABILITY** **0** **PHYSICAL HAZARD** **0** PERSONAL PROTECTION \* **D-2B/D2A**

Causes skin irritation - H315

Causes serious eye damage - H318 May cause cancer. - H350

Causes damage to organs - Lungs through prolonged or repeated exposure via Inhalation - H372

Health

Permissible Exposure Limit: As for the product ingredients listed under, COMPOSITION/  
INFORMATION ON INGREDIENTS in Section 3 of this form.

Threshold Limits Value As for the product ingredients listed under, COMPOSITION/  
INFORMATION ON INGREDIENTS in Section 3 of this form.

Effects of Over Exposure: May cause temporary irritation to eyes and mucous membranes.  
Continued breathing of dust that contains silica in concentrations above  
PEL over long period may cause respiratory disorders or silicosis.

Medical Conditions Aggravated by Exposure: Any debilitating condition of the lungs, eyes, or other  
mucus membranes.

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**2. HAZARDS IDENTIFICATION (CONT.)**

**United States (US)**

According to OSHA 29 CFR 1910.1200 HCS

**Classification of the substance or mixture**

OSHA HCS 2012 | Skin Irritation 2 - H315  
Serious Eye Damage 1 - H318  
Carcinogenicity 1A - H350  
Specific Target Organ Toxicity Repeated Exposure 1 - H372

**Label elements**

OSHA HCS 2012

**DANGER**



**Hazard statements |**

Causes skin irritation - H315  
Causes serious eye damage - H318  
May cause cancer. - H350  
Causes damage to organs - Lungs through prolonged or repeated exposure via Inhalation - H372

**Precautionary statements**

**Prevention:**

Obtain special instructions before use. - P201  
Do not handle until all safety precautions have been read and understood. - P202  
Do not breathe dust. - P260  
Wash thoroughly after handling. - P264  
Do not eat, drink or smoke when using this product. - P270

**Response:**

Wear protective gloves/protective clothing/eye protection/face protection. - P280  
If on skin: Wash with plenty of water.  
Take off contaminated clothing and wash before reuse. - P362  
If skin irritation occurs: Get medical advice/attention. - P332+P313  
Specific treatment, see supplemental first aid information. - P321  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. - P305+P351+P338  
Immediately call a POISON CENTER or doctor/physician. - P310  
IF exposed or concerned: Get medical advice/attention. - P308+P313  
Get medical advice/attention if you feel unwell. - P314

**Storage/Disposal |**

Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. - P501

**Other hazards**

OSHA HCS 2012 |

Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

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**2. HAZARDS IDENTIFICATION (Cont.)****Canada**

According to WHMIS

**Classification of the substance or mixture**

WHMIS | Other Toxic Effects - D-2B/D2A

Corrosive - E

**Label elements**

WHMIS



| Other Toxic Effects - D2A  
Corrosive – E

**Other hazards**

WHMIS | In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

**3. COMPOSITION/INFORMATION ON INGREDIENTS****Substances**

| Material does not meet the criteria of a substance.

**Mixtures**

Chemical Name	Identifiers	%	LD50/LC50	Comments
Fibrous Glass Dust	CAS: 65997-17-3	*N/A	NDA	NDA
Silica, amorphous	CAS:7631-86-9	*N/A	NDA	NDA
Bentonite	CAS:1302-78-9	*N/A	NDA	NDA
Calcined Alumina	CAS:1344-28-1	*N/A	NDA	NDA
Zirconium Silicate	CAS:14940-68-2	*N/A	NDA	NDA

- \*N/A due to trade secret claim

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**4. FIRST AID MEASURES****Description of first aid measures**

**Inhalation:** Move victim to fresh air. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult. Get medical attention immediately.

**Skin:** In case of contact with substance, immediately flush skin with running water for at least 20 minutes. If skin irritation occurs: Get medical advice/attention.

**Eye:** In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.

**Ingestion:** Rinse mouth. Do not give anything by mouth to an unconscious person. Get medical attention immediately.

**Most important symptoms and effects, both acute and delayed:**

Refer to Section 11 - Toxicological Information.

**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician:** All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

**5. FIRE FIGHTING MEASURES**

Flash Point (Method Used)	Flammable Limits	LEL	UEL
N/A	N/A	N/A	N/A

**Extinguishing media**

**Suitable Extinguishing Media:** Material is non-combustible. In case of fire use media as appropriate for surrounding fire.

**Unsuitable Extinguishing Media:** None known.

**Special hazards arising from the substance or mixture**

**Unusual Fire and Explosion Hazards:** None known.

**Hazardous Combustion Products:** None known.

**Advice for firefighters:** Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection. Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.

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**6. ACCIDENTAL RELEASE MEASURES**

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

**Personal Precautions:** Isolate hazard area and deny entry to unauthorized and/or unprotected personnel. Do not touch or walk through spilled material. Ensure adequate ventilation to remove vapors, fumes, dust etc.

**Emergency Procedures:** Ventilate closed spaces before entering. Isolate hazard area and deny entry to unauthorized and/or unprotected personnel.

**Environmental precautions:** No specific actions or treatments recommended related to exposure to this material.

**Methods and material for containment and cleaning up**

**Containment/Clean-up:**

**Measures:** Avoid generating dust.

FOR SMALL SPILLS: Clean with a vacuum with a filtration system sufficient to remove and prevent recirculation of crystalline silica (a vacuum equipped with a high-efficiency particulate air (HEPA) filter is recommended).

FOR LARGE SPILLS: Use a fine spray or mist to control dust creation and carefully scoop or shovel into clean dry container for later reuse or disposal.

If, an appropriate vacuum is unavailable, only wet-clean-up methods should be used (i.e. misting). Moisture should be added as necessary to reduce exposure to airborne respirable silica dust.

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Handling:**

Do not breathe dust. Avoid contact with skin, eyes, and clothing. Minimize dust generation and accumulation. Use good safety and industrial hygiene practices. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Wear long sleeves and/or protective coveralls. Contaminated clothing must be vacuumed before removal. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Wash thoroughly after handling. Do not use in areas without adequate ventilation.

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

**Storage:**

Store in a covered location. Keep container closed. Store in a cool, dry place. Keep from freezing. Storage and work area should be periodically cleaned to minimize dust accumulation.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Exposure controls**

**Engineering**

**Measures/Controls**

Good general ventilation should be used. Ventilation rates should be matched to conditions. Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values. Collection systems must be designed and maintained to prevent the accumulation and recirculation of respirable silica into the workplace.

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<b>8. EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT.)</b>
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**Personal Protective Equipment**

**Respiratory:**

For limited exposure use an N95 dust mask. For prolonged exposure use an air purifying respirator with high efficiency particulate air (HEPA) filters. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced. May cause lung damage. Long-term (lifetime) animal inhalation studies have been inconclusive. Other animal studies have shown refractory fiber to cause cancer of the pleura.

**Eye/Face:**

Wear protective eyewear (goggles, face shield, or safety glasses).

**Hands:**

Wear appropriate gloves.

**Skin/Body:**

Wear long sleeves and/or protective coveralls.

**Ingestion:**

Induce vomiting. Contact physician immediately.

**General Industrial Hygiene**

**Considerations:**

May cause temporary lung irritation (upper respiratory irritation) with cough, discomfort, difficulty in breathing, or shortness of breath. Avoid contact with skin, eyes or clothing. Do not remove material from clothing by blowing or shaking. Do not eat, drink or smoke during work. Wash hands before eating, drinking, or smoking. Wash thoroughly after handling. Handle in accordance with good industrial hygiene and safety practice.

**Environmental Exposure**

**Controls:**

Follow best practice for site management and disposal of waste. Dispose of in an approved landfill.

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**9. PHYSICAL AND CHEMICAL PROPERTIES****Information on Physical and Chemical Properties**

<b>Material Description</b>			
Physical Form	Solid	Appearance/Description	White to off white, no odor
<b>General Properties</b>			
Boiling Point	212°F/100°C	Melting Point 2750°F/ 1510°C	No data available
Decomposition Temperature	No data available	pH 9.8-10.4	Not relevant
Solubility in Water	Nonsalable	Not relevant	Not relevant
Specific Gravity/Relative Density	4.5-5.0	Water Solubility	Negligible < 0.1 %
Viscosity	No data available		
<b>Volatility</b>			
Vapor Pressure	24mmHg@77°F/ 25°C 48 mmhg@100°F/ 38°C	Vapor Density	No data available
Vapor Density	Vapor is water (Air=1)	No data available	No data available
% Volatile by Volume	Nil	No data available	No data available
Evaporation Rate	<1 (Butyl Acetate =1)		
<b>Flammability</b>			
Flash Point	Will not burn	No data available	No data available
Flammability (solid, gas)	Will not burn	No data available	No data available
<b>Environmental</b>			
Octanol/Water Partition coefficient	No data available	No data available	No data available

Some physical and chemical properties are not listed. They are not applicable or not available.

**10. STABILITY AND REACTIVITY****Reactivity:** No dangerous reaction known under conditions of normal use.**Chemical stability:** Stable under normal temperatures and pressures.**Incompatibility:** Hydrofluoric acid and strong alkalis**Possibility of hazardous reactions:** Hazardous polymerization not indicated.**Conditions to avoid:** None known.**Hazardous Polymerization:** Will not occur.**Incompatible materials:** None known.**Hazardous decomposition products:** None known.

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**11. TOXICOLOGICAL INFORMATION**

<b>Components</b>		
Silica, amorphous (0% TO 12.19%)	7631-86-9	<b>Irritation:</b> Eye-Rabbit • 25 mg 24 Hour(s) • Mild irritation
Titanium dioxide (0.09% TO 0.6%)	13463-67-7	<b>Irritation:</b> Skin-Human • 300 µg 3 Day(s)-Intermittent • Mild irritation; <b>Tumorigen / Carcinogen:</b> Inhalation-Rat TCLo • 250 mg/m <sup>3</sup> 6 Hour(s) 2 Year(s)-Intermittent; <i>Tumorigenic:</i> Carcinogenic by RTECS criteria; <i>Lungs, Thorax, or Respiration:</i> Tumors
Silica Amorphous	7631-86-9	<b>Acute Toxicity:</b> Ingestion/Oral-Rat LD50 • 1.25 g/kg; <i>Lungs, Thorax, or Respiration:</i> Acute pulmonary edema; <i>Liver:</i> Changes in liver weight

GHS Properties	Classification
Acute toxicity	OSHA HCS 2012. Data lacking
Aspiration Hazard	OSHA HCS 2012 • Data lacking
Carcinogenicity	OSHA HCS 2012. Carcinogenicity 1A
Germ Cell Mutagenicity	OSHA HCS 2012. Data lacking
Skin corrosion/Irritation	OSHA HCS 2012. Skin Irritation 2
Skin sensitization	OSHA HCS 2012. Data lacking
STOT-RE	OSHA HCS 2012. Specific Target Organ Toxicity Repeated Exposure 1
STOT-SE	OSHA HCS 2012. Data lacking
Toxicity for Reproduction	OSHA HCS 2012. Data lacking
Respiratory sensitization	OSHA HCS 2012. Data lacking
Serious eye damage/irritation	OSHA HCS 2012. Serious Eye Damage 1

**Target Organs:**

Lungs

**Route(s) of entry/exposure:**

Inhalation, Skin, Eye, Ingestion

**Medical Conditions:**

Any pre-existing conditions of the lungs. Disorders of the lungs.

**Aggravated by Exposure****Potential Health Effects****Inhalation:****Acute (Immediate):**

Exposure to dust may cause irritation.

**Chronic (Delayed):**

Chronic overexposure to dust containing respirable sized crystalline silica can cause delayed lung injury (silicosis). Inhalation of dust containing crystalline silica pulmonary diseases such as asthma and lung disorder associated with smoking.



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**11. TOXICOLOGICAL INFORMATION (CONT.)****Skin:**

**Acute (Immediate)** Causes skin irritation. Exposure to dust may cause irritation.  
**Chronic (Delayed)** May cause lung damage.

**Eye:**

**Acute (Immediate)** Causes serious eye damage. Excessive concentrations of nuisance dust in the workplace may reduce visibility and may cause unpleasant deposits in eyes.  
**Chronic (Delayed)** No data available.

**Ingestion**

**Acute (Immediate)** Excessive concentrations of nuisance dust in the workplace may cause mechanical irritation to mucous membranes.

**Chronic (Delayed)** No data available.

**Carcinogenic Effects**

May cause cancer. IARC studies have shown sufficient evidence from animal studies

to categorize crystalline silica as a group 1 carcinogen.

<b>Carcinogenic Effects</b>			
	<b>CAS</b>	<b>IARC</b>	<b>NTP</b>
Titanium dioxide	13463-67-7	Group 2B-Possible Carcinogen	Not Listed
Zirconium Silicate	12182-56-8	No	No
Quartz	14808-60-7	Group 1-Carcinogenic	Known Human Carcinogen

**12. ECOLOGICAL INFORMATION****Toxicity:**

Material data lacking.

**Persistence and degradability:**

Material data lacking.

**Bio accumulative potential:**

Material data lacking.

**Mobility in Soil:**

Material data lacking.

**Other adverse effects:**

No studies have been found.

**13. DISPOSAL CONSIDERATION****Waste treatment methods****Product waste:**

Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

**Packaging waste:**

Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

## **RAPIDFLOOR PATCH and RAPID PATCH**

Effective Date: 05/01/2015

### **14. TRANSPORT INFORMATION**

Canadian Transportation of Dangerous Goods Regulation: Hazard Class & PIN: Not Regulated  
DOT Proper Shipping Name (29 CFR 172.101): Not regulated  
UN/NA Code (49 CFR 172.101): Not applicable  
Canadian Transportation of Dangerous Goods Regulation: Hazard Class & PIN: Not Regulated  
DOT Proper Shipping Name (29 CFR 172.101): Not Regulated  
DOT Hazzard Class (29 CFR 172.101): Not Regulated  
UN/NA Code (49 CFR 172.101): Not applicable  
DOT Labels Required (49 CFR 172.101): Not applicable  
DOT Placards Required (49 CFR 172.504): Not applicable  
Land Transport ADR/RID (cross-border): Not regulated  
Maritime Transport IMDG : Not regulated  
Air Transport ICAO-TI and IATA-DGR: Not regulated

### **15. REGULATORY INFORMATION**

CANADIAN WHMIS: D2A

CANADIAN EPA: Components of this product are listed on the Domestic Substance List (DSL).

#### U.S. FEDERAL REGULATIONS:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

SARA TITLE III: EPCRA Section 302 (EHSs): This product does not contain ingredients subject to reporting requirements of 40 CFR Part 355, Appendices A and B (Extremely Hazardous Substances).

CERCLA Section 304: This product does not contain ingredients subject to state and local reporting under Section 304 of SARA Title III as listed in 40 CFR Part 302, Table 302.4

SECTION 311/312 HAZARD CATEGORIES: Product (airborne particulates) is categorized as an immediate (acute) health hazard and a delayed (chronic) health hazard as defined by SARA Title III Section 311/312 (40 CFR 370).

SECTION 313 TOXIC CHEMICALS: None

TSCA: Components of this product are listed on the TSCA Inventory.

### **16. OTHER INFORMATION**

Warning: This product contains no crystalline silica as supplied, however, when the product has been exposed to temperatures above 1800F (982C), during service, a form of crystalline silica may form. Prolonged exposure to dust may cause silicosis, a progressive pneumoconiosis, or other respiratory diseases. The International Agency for Research on Cancer (IARC) has classified crystalline silica as a Class 2A carcinogen. Its study concluded that sufficient evidence for carcinogenicity exists in humans.

Contact between refractory ceramic fibers and skin may result in transitory skin rash. Susceptibility varies with individuals, with some individuals showing no susceptibility.

This SDS was prepared or edited last IAW the date indicated at the top of each sheet.

Only properly trained personal should use this material

**RAPIDFLOOR PATCH and RAPID PATCH**

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<b>16. OTHER INFORMATION (CONT.)</b>
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Abbreviations:

ACGIH: American Conference of Governmental Industrial Hygienists

CAS: Chemical Abstracts Service

CFR: Code for Federal Regulations

CERCLA: Comprehensive Environmental Response, Compensation and Liability Act

DOT: Department of Transportation

EPA: Environmental Protection Agency

EPCRA: Emergency Planning and Community Right-To-Know Act

HEPA: High Efficiency Particulate Air

IARC: International Agency for Research on Cancer

ICAO: International Civil Aviation Organization

IMDG: International Maritime Dangerous Goods Code

LD = Lethal Dose

LEL: Lower Explosive Limit

NFPA: National Fire Protection Association

NIOSH: National Institute for Occupational Safety and Health

NTP: National Toxicology Program

OSHA: Occupational Safety and Health Administration

SARA: Superfund Amendment and Reauthorization Act

STEL: Short Term Exposure Limits are based on 15-minute exposures Time-Weighted Averages are based on 8h/day,

40h/week exposures.

TC= Toxic Concentration

TSCA: Toxic Substances Control Act

TVL: Threshold Limit Value

UEL: Upper Explosive Limits

WHMIS: Workplace Hazardous Materials Information System (Canada)

**DISCLAIMER**

The information presented herein is presented in good faith and believed to be accurate as of the effective date of this Safety Data Sheet. Employers may use this SDS to supplement other information gathered by them in their efforts to assure the health and safety of their employees and the proper use of the product. This summary of the relevant data reflects professional judgment; employers should note that information perceived to be less relevant has not been included in this SDS. Therefore, given the summary nature of this document, Redline Industries, Inc. does not extend any warranty (expressed or implied), assume any responsibility, or make any representation regarding the completeness of this information or its suitability for the purposes envisioned by the user.