

# SAFETY DATA SHEET

Issuing Date 17-Dec-19

Revision Date 3-Oct-2023

Revision Number 2  
NGHS / English



## 1. IDENTIFICATION

### Product identifier

**Product Name** Ceramic Welding Material

### Other means of identification

**Product Code(s)** HWC-AL-2

### Recommended use of the chemical and restrictions on use

**Recommended Use** Professional Use Only

**Restrictions on use** No information available

### Details of the supplier of the safety data sheet

**Supplier Identification** Fuse Tech Inc.

**Address** 546 N. Main St.  
Cadiz, OH 43907

**Telephone** Phone 740-942-3565 (M-F , 8AM - 4PM, EST)

**Company Emergency Phone Number** (800) 301-3873

## 2. HAZARDS IDENTIFICATION

### Classification

Serious eye damage/eye irritation	Category 2B
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 1

**Appearance** Gray-Tan

**Physical state** Solid

**Odor** Odorless

### GHS Label elements, including precautionary statements

#### **Danger**

#### **Hazard statements**

Causes eye irritation  
May cause respiratory irritation

## 2. HAZARDS IDENTIFICATION-CONTINUED

Causes damage to organs through prolonged or repeated exposure



### Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling  
 Do not breathe dust/fume/gas/mist/vapors/spray  
 Do not eat, drink or smoke when using this product  
 Use only outdoors or in a well-ventilated area

### Precautionary Statements - Response

Get medical advice/attention if you feel unwell

#### Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 If eye irritation persists: Get medical advice/attention

#### Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing  
 Call a POISON CENTER or doctor if you feel unwell

### Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed  
 Store locked up

### Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

### Other information

**Unknown acute toxicity**                      0 % of the mixture consists of ingredient(s) of unknown toxicity  
 0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity  
 0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity  
 0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)  
 0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)  
 0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Substance

Not applicable.

### Mixture

Chemical name	CAS No	Weight-%
Aluminum Oxide	1344-28-1	30-50
Fused Silica	7631-86-9	30-50
Silicon	7440-21-3	10-20
Aluminum	7429-90-5	<5

## 4. FIRST AID MEASURES

### Description of first aid measures

<b>General advice</b>	Show this safety data sheet to the doctor in attendance.
<b>Inhalation</b>	Remove to fresh air. IF exposed or concerned: Get medical advice/attention.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Get medical attention if irritation develops and persists. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>Skin contact</b>	Wash skin with soap and water.
<b>Ingestion</b>	Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician.

### Most important symptoms and effects, both acute and delayed

<b>Symptoms</b>	No information available.
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### Indication of any immediate medical attention and special treatment needed

<b>Note to physicians</b>	Treat symptomatically.
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## 5. FIRE-FIGHTING MEASURES

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Large Fire</b>	CAUTION: Use of water spray when fighting fire may be inefficient.
<b>Unsuitable extinguishing media</b>	Do not scatter spilled material with high pressure water streams.
<b>Specific hazards arising from the chemical</b>	No information available.
<b>Hazardous Combustion Products</b>	Product is non-combustible.
<b>Explosion Data</b>	
<b>Sensitivity to Mechanical Impact</b>	None.
<b>Sensitivity to Static Discharge</b>	None.
<b>Special protective equipment for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

<b>Personal precautions</b>	Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas.
<b>Other Information</b>	Refer to protective measures listed in Sections 7 and 8.

## 6. ACCIDENTAL RELEASE MEASURES-CONTINUED

### Methods and material for containment and cleaning up

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation. Avoid breathing vapors or mists. In case of insufficient ventilation, wear suitable respiratory equipment.

### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH	
Aluminum Oxide 1344-28-1	TWA: 1 mg/m <sup>3</sup> respirable particulate matter	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> total dust (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction		
Fused Silica 7631-86-9	10 mg/m <sup>3</sup>	20 mppcf TWA; ((80))/(% SiO <sub>2</sub> ) mg/m <sup>3</sup> )	IDLH: 3000 mg/m <sup>3</sup> TWA: 6 mg/m <sup>3</sup>	
Silicon 7440-21-3	-	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> total dust (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction	TWA: 10 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable dust	
Aluminum 7429-90-5	TWA: 1 mg/m <sup>3</sup> respirable particulate matter	TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction (vacated) TWA: 15 mg/m <sup>3</sup> total dust (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction	TWA: 10 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable dust	
Chemical name	Alberta	British Columbia	Ontario TWAEV	Quebec
Aluminum Oxide 1344-28-1	TWA: 10 mg/m <sup>3</sup>	TWA: 1.0 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>
Silicon 7440-21-3		TWA: 10 mg/m <sup>3</sup> TWA: 3 mg/m <sup>3</sup>		TWA: 10 mg/m <sup>3</sup>
Aluminum 7429-90-5	TWA: 10 mg/m <sup>3</sup>	TWA: 1.0 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION-CONTINUED

<b>Other Exposure Guidelines</b>	Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).
<b><u>Appropriate engineering controls</u></b>	
<b>Engineering controls</b>	Showers Eyewash stations Ventilation systems.
<b><u>Individual protection measures, such as personal protective equipment</u></b>	
<b>Eye/face protection</b>	Safety glasses or goggles when there is a reasonable probability of projectiles or high airborne particulate concentration.
<b>Hand protection</b>	Suitable for protection against direct skin contact with fine particles.
<b>Skin and body protection</b>	Adequate footwear (safety shoes if necessary) and clothing that protects skin from prolonged or repeated contact with dust. Change clothing if there is a reasonable probability of excessive dust contamination.
<b>Respiratory protection</b>	When engineering or administrative controls cannot maintain exposures below OSHA permissible limits, use an appropriate NIOSH approved respirator. If respiratory protection is required, all requirements as set forth in 29 CFR 1910.134 must be met. A Certified Industrial Hygienist or other competent health and safety professional should be consulted for respirator selection, fit testing, and training.
<b>General hygiene considerations</b>	If airborne dust is generated, provide general dilution ventilation and/or local exhaust ventilation sufficient to maintain personal exposures below OSHA permissible exposure limits.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Physical state</b>	Solid
<b>Appearance</b>	Granular Powder
<b>Odor</b>	Odorless
<b>Color</b>	Gray-Tan
<b>Odor Threshold</b>	Not applicable

<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks Method</u></b>
<b>pH</b>	No data available	None known
<b>Melting / freezing point</b>	No data available	None known
<b>Boiling point / boiling range</b>	No data available	None known
<b>Flash Point</b>	No data available	None known
<b>Evaporation Rate</b>	No data available	None known
<b>Flammability (solid, gas)</b>	No data available	None known
<b>Flammability Limit in Air</b>		
<b>Upper flammability limit</b>	No data available	
<b>Lower flammability limit</b>	No data available	
<b>Vapor pressure</b>	No data available	None known
<b>Vapor density</b>	No data available	None known
<b>Relative density</b>	7 - 9	None known
<b>Water Solubility</b>	Insoluble in water	
<b>Solubility(ies)</b>	No data available	None known

## 9. PHYSICAL AND CHEMICAL PROPERTIES-CONTINUED

Partition coefficient: n-octanol/water N/A

<b>Autoignition temperature</b>	No data available	None known
<b>Decomposition temperature</b>	No data available	None known
<b>Kinematic viscosity</b>	No data available	None known
<b>Dynamic viscosity</b>	No data available	None known

### Other Information

<b>Explosive properties</b>	No information available
<b>Oxidizing properties</b>	No information available
<b>Softening Point</b>	No information available
<b>Molecular Weight</b>	No information available
<b>VOC Content (%)</b>	No information available
<b>Liquid Density</b>	No information available
<b>Bulk Density</b>	No information available
<b>Particle Size</b>	No information available
<b>Particle Size Distribution</b>	No information available

## 10. STABILITY AND REACTIVITY

<b>Reactivity</b>	No information available.
<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of Hazardous Reactions</b>	None under normal processing.
<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	None known based on information supplied.
<b>Incompatible materials</b>	None known based on information supplied.
<b>Hazardous Decomposition Products</b>	Carbon oxides. Product will not decompose spontaneously. Thermal decomposition is unlikely, but may occur at temperatures above 3000°C (5000°F).

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

<b>Inhalation</b>	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available. Causes eye irritation. May cause redness, itching, and pain.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available.
<b>Ingestion</b>	Specific test data for the substance or mixture is not available.

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

<b>Symptoms</b>	May cause redness and tearing of the eyes.
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## 11. TOXICOLOGICAL INFORMATION-CONTINUED

### Numerical measures of toxicity

#### Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 15,800.00 mg/kg

**Unknown acute toxicity** 0 % of the mixture consists of ingredient(s) of unknown toxicity

0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)

0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

#### Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Aluminum Oxide	> 5000 mg/kg ( Rat )	-	-
Fused Silica	= 7900 mg/kg ( Rat )	> 5000 mg/kg ( Rabbit )	> 58.8 mg/L ( Rat ) 4 h
Silicon	= 3160 mg/kg ( Rat )	-	-
Aluminum	-	-	> 0.888 mg/L ( Rat ) 4 h

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Skin corrosion/irritation** May cause skin irritation.

**Serious eye damage/eye irritation** Classification based on data available for ingredients. Irritating to eyes.

**Respiratory or skin sensitization** No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** No information available.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Fused Silica 7631-86-9	-	Group 3	-	X

#### Legend

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

Group 3 - Not Classifiable as to Carcinogenicity in Humans

**OSHA (Occupational Safety and Health Administration of the US Department of Labor)**

X - Present

**Reproductive toxicity** No information available.

**STOT - single exposure** May cause respiratory irritation.

**STOT - repeated exposure** Causes damage to organs through prolonged or repeated exposure.

**Aspiration hazard** No information available.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity** The environmental impact of this product has not been fully investigated.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Fused Silica	72h EC50: = 440 mg/L (Pseudokirchneriella subcapitata)	96h LC50: = 5000 mg/L (Brachydanio rerio)	No data available	48h EC50: = 7600 mg/L (Ceriodaphnia dubia)

**Persistence and Degradability** No information available.

**Bioaccumulation** No information available.

**Mobility** No information available.

**Other adverse effects** No information available.

## 13. DISPOSAL CONSIDERATIONS

### Waste treatment methods

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical name	California Hazardous Waste
Aluminum 7429-90-5	Ignitable powder

## 14. TRANSPORT INFORMATION

**DOT**  
**Proper Shipping Name** NOT REGULATED  
**Hazard Class** NON-REGULATED  
 N/A

**TDG** Not applicable

**MEX** Not applicable

**ICAO** Not applicable

**IATA**  
**Proper Shipping Name** Not applicable  
**Hazard Class** NON REGULATED  
 N/A

**IMDG/IMO**  
**Hazard Class** Not applicable  
 N/A

**RID** Not applicable

**ADR** Not applicable

## 15. REGULATORY INFORMATION

### Safety, health and environmental regulations/legislation specific for the substance or mixture

#### International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

#### International Inventories

DSL/NDSL	Not evaluated.
EINECS/ELINCS	Not evaluated.
ENCS	Not evaluated.
KECL	Not evaluated.
PICCS	Not evaluated.
AICS	Not evaluated.

#### Legend

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances

#### US Federal Regulations

##### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	CAS No	Weight-%	SARA 313 – Threshold Values %
Aluminum Oxide - 1344-28-1	1344-28-1	75-85	1.0
Aluminum - 7429-90-5	7429-90-5	<5	1.0

##### SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications. Under the amended regulations at 40 CFR 370, EPCRA 311/312 Tier II reporting for the 2017 calendar year will need to be consistent with updated hazard classifications.

##### CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

##### CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

#### US State Regulations

##### California Proposition 65

This product contains the following Proposition 65 chemicals.

## 15. REGULATORY INFORMATION - CONTINUED

Chemical name	California Proposition 65
Fused Silica - 7631-86-9	carcinogen, 10/1/1988 (airborne particles of respirable size)

### U.S. State Right-to-Know Regulations

This product may contain substances regulated by state right-to-know regulations.

Chemical name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Aluminum Oxide 1344-28-1	X	X	X	X	
Fused Silica 7631-86-9		X	X		
Silicon 7440-21-3	X	X	X		
Aluminum 7429-90-5	X	X	X	X	

## 16. OTHER INFORMATION

**NFPA**                      **Health hazards** 1    **Flammability** 0                      **Instability** 0                      **Physical and Chemical Properties** -

**HMIS**                      **Health hazards** 1\*    **Flammability** 0                      **Physical hazards** 0                      **Personal Protection** X  
*Chronic Hazard Star Legend*                      \* = Chronic Health Hazard

**Issuing Date**                      17-Dec-19

**Revision Date**                      3-Oct-23

**Revision Note**                      No information available

### **Disclaimer**

Details presented in this SDS were derived from literature sources and regulatory documents believed to be accurate and authoritative. The purpose of this SDS is to serve as a general guide to users of this product. It is the user's responsibility to determine acceptability of this product for their application, to ensure safe usage of this product, and to comply with all applicable federal, state and local regulations. The user must satisfy requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and any other applicable occupational health and environmental regulations. This SDS is not intended as a total regulatory compliance document, nor should it be construed as a license or a recommendation to violate any law or infringe on any patent.

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<b>PREPARED BY:</b> Comprehensive Safety Compliance, Inc. (CSC) Occupational Health and Safety Consultant (412) 826-5480	<b>VERSION NO.:</b> 2	<b>APPROVAL DATE:</b> 10/3/2023
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**End of Safety Data Sheet**