

SAFETY DATA SHEET

Issuing Date 14-June-2018

Revision Date 3-Oct-23

Revision Number 2
NGHS / English



1. IDENTIFICATION

Product identifier

Product Name Ceramic Welding Material

Other means of identification

Product Code(s) HWC-AL-1

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	75-85
Silicon	7440-21-3	10-20
Aluminum	7429-90-5	<5

4. FIRST AID MEASURES

Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance.
Inhalation	Remove to fresh air. IF exposed or concerned: Get medical advice/attention.
Eye contact	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.
Skin contact	Wash skin with soap and water.
Ingestion	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

Symptoms	No information available.
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Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

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

Personal precautions	Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas.
Other Information	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 ³ respirable particulate matter	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 10 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction		
Silicon 7440-21-3	-	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 10 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction	TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust	
Aluminum 7429-90-5	TWA: 1 mg/m ³ respirable particulate matter	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 15 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction	TWA: 10 mg/m ³ total dust TWA: 5 mg/m ³ respirable dust	
Chemical name	Alberta	British Columbia	Ontario TWAEV	Quebec
Aluminum Oxide 1344-28-1	TWA: 10 mg/m ³	TWA: 1.0 mg/m ³	TWA: 1 mg/m ³	TWA: 10 mg/m ³
Silicon 7440-21-3		TWA: 10 mg/m ³ TWA: 3 mg/m ³		TWA: 10 mg/m ³
Aluminum 7429-90-5	TWA: 10 mg/m ³	TWA: 1.0 mg/m ³	TWA: 1 mg/m ³	TWA: 10 mg/m ³

8. EXPOSURE CONTROLS/PERSONAL PROTECTION-CONTINUED

Other Exposure Guidelines	Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).
<u>Appropriate engineering controls</u>	
Engineering controls	Showers Eyewash stations Ventilation systems.
<u>Individual protection measures, such as personal protective equipment</u>	
Eye/face protection	Safety glasses or goggles when there is a reasonable probability of projectiles or high airborne particulate concentration.
Hand protection	Suitable for protection against direct skin contact with fine particles.
Skin and body protection	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.
Respiratory protection	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.
General hygiene considerations	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

Physical state	Solid
Appearance	Granular Powder
Odor	Odorless
Color	Gray-Tan
Odor Threshold	Not applicable

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

9. PHYSICAL AND CHEMICAL PROPERTIES-CONTINUED

Partition coefficient: n-octanol/water N/A

Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known

Other Information

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

10. STABILITY AND REACTIVITY

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of Hazardous Reactions	None under normal processing.
Hazardous Polymerization	Hazardous polymerization does not occur.
Conditions to avoid	None known based on information supplied.
Incompatible materials	None known based on information supplied.
Hazardous Decomposition Products	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

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

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	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
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 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)	-	-
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.

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.

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

ADN 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

TSCA All ingredients are on the inventory or exempt from listing.

15. REGULATORY INFORMATION - CONTINUED

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

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	
Silicon 7440-21-3	X	X	X		
Aluminum 7429-90-5	X	X	X	X	

16. OTHER INFORMATION

<u>NFPA</u>	Health hazards 1	Flammability 0	Instability 0	Physical and Chemical Properties -
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<u>HMIS</u> <i>Chronic Hazard Star Legend</i>	Health hazards 1* <i>* = Chronic Health Hazard</i>	Flammability 0	Physical hazards 0	Personal Protection X
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Issuing Date	14-June-2018
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Revision Date	3-Oct-2023
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Revision Note	No information available
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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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End of Safety Data Sheet