Specification and Safety Data Sheet

2200C Ultra Hi-Temp Zirconia Ceramic Adhesive

1. Product and Company Identification

Product Name: EQ-904-ZO-LD

CAS#: 1344-09-8
1305-78-8
7631-86-9

Chemical Formula: $Na_2Si_3O_7$
CaO
SiO_2

Identified uses: Ceramic adhesive

Contact Information:
MTI Corporation
860 South 19th Street
Richmond, CA 94804, USA
Tel: 510-525-3070
Fax: 510-525-4705
Email: info@mtixtl.com
Website: www.mtixtl.com

Non-emergency assistance: 1-888-525-3070

Emergency assistance: Company: CHEMTEL (MTI Contract# MIS2559467) Day or Night
Tel (Within USA and Canada): 1-800-255-3924
Tel (Outside USA and Canada): 1-813-248-0585

2. Hazards Identification

Emergency Overview: GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

GHS07

Acute Tox. 4	H302	Harmful if swallowed
Skin Irrit. 2	H315	Causes skin irritation
Eye Irrit. 2A	H319	Causes serious eye irritation

For the full text of the H-Statements mentioned in this Section, see Section 16

HMIS Rating
Health hazard: 1
Chronic Health Hazard:
Flammability: 0
Physical Hazard 0

NFPA Rating
Health hazard: 1
Fire Hazard: 0
Reactivity Hazard: 0

GHS Label elements, including precautionary statements

Pictogram	
Signal	Danger
Hazard statement(s)	
H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
Precautionary statement(s)	
P262	Do not get in eyes, on skin, or on clothing.
P270	Do not eat, drink or smoke when using this product
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P285	In case of inadequate ventilation wear respiratory protection.
P301 + P331 + P315	IF SWALLOWED: Do NOT induce vomiting. Get immediate medical advice/attention
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338 + P313	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/ container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC) or not covered by GHS
None

3. Composition/Information on Ingredients

Substance Name: Sodium polysilicate

Formula:	$Na_2Si_3O_7$	CaO	SiO_2
Molecular Weight:	242.23 g/mol	56.08 g/mol	60.08 g/mol
CAS-No. :	1344-09-8	1305-78-8	7631-86-9

Hazardous Components

Component	Classification	Concentration
Sodium polysilicate	Acute tox. 4, Skin Irrit. 2, Eye Irrit. 2A. H302, H315, H319	2.5 - <5%
Calcium oxide	Skin Irrit.2; Eye Dam. 1; STOT SE 3; H315, H318, H335	1-<2.5%
Silica		0.1-<1%
Proprietary		2.5 - <10%

Nonhazardous materials will not be listed separately. When encapsulated in a liquid mixture, powders are not expected to pose a health hazard when processed under normal conditions of use.

4. First Aid Measures

4.1 Description of first aid measures

General advice

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. If transporting move stably into a side position for transportation

In case of skin contact

If skin irritation continues, consult a doctor

In case of eye contact

Rinse opened eye thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

5. Firefighting Measures

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol resistant-foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance mixture

No further relevant information available

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further Information

No data available

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Not required.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter sewers/surface or ground water.

6.3 Methods and materials for containment and cleaning up

Soak up with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to section 13. Ensure adequate ventilation.

6.4 Reference to other sections

For handling and storage see section 7

For disposal see section 13.

7. Handling and Storage

7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Keep sealed container(s) at room temperature.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. Exposure Control/ Personal Protection

8.1 Control parameters

Components with workplace control parameters

None

Additional information

This product as manufactured is a Silicate which contains encapsulated silica. It is not considered respirable in the liquid form or cured form. If the cured cement is heated the silica could transform to mullite and cristobalite (a form of crystalline silica). Removal of this product in the cured state is by mechanical means. This may cause the generation of dust, repeated inhalation of respirable, free crystalline silica dust may cause lung injury (silicosis).

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of workday. Do not eat, smoke, or drink while using this product. Avoid contact with the eyes and skin.

Personal protective equipment

Eye/face protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls.

Control of environmental exposure

Do not let product enter drains.

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

a) Appearance	Paste/fluid
Color	Tan
b) Odor	Slight
c) Odor Threshold	No data available
d) pH	No data available
e) Melting point/freezing point	No data available
f) Initial boiling point and boiling range	100 °C (212 °F)
g) Flash point	No data available
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapor pressure	No data available
l) Vapor density	No data available
m) Relative density	3.4 g/cm3
n) Water solubility	Miscible
o) Partition coefficient: n-octanol/water	No data available
p) Auto-ignition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	No data available

9.2 Other safety information

No data available

10. Stability and Reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No decomposition if used according to specifications.

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

No information available

10.6 Hazardous decomposition products

Other decomposition products - No data available

In the event of fire: see section 5

11. Toxicological Information

11.1 Information on toxicological effects

Acute toxicity

No data available

Skin corrosion/irritation

Irritating to skin

Serious eye damage/eye irritation
Irritating effect
Respiratory or skin sensitization
No data available
Germ cell mutagenicity
No data available
Carcinogenicity
IARC: Silica Cas No.: 7631-86-9
Titanium Dioxide Cas No.: 13463-67-7
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity
No data available
Specific target organ toxicity - single exposure
No data available
Specific target organ toxicity - repeated exposure
No data available
Aspiration hazard
No data available
Additional Information
RTECS: Not available

12. Ecological Information

12.1 Toxicity
No data available
12.2 Persistence and degradability
No data available
12.3 Bioaccumulative potential
No data available
12.4 Mobility in soil
No data available
12.5 Results of PBT and vPvB assessment PBT/vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
12.6 Other adverse effects
No data available

13. Disposal Considerations

13.1 Waste treatment methods
Product
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Contaminated packaging
Dispose material in accordance with federal, state, local and international regulations.

14. Transport Information

DOT (US)
Not dangerous goods
IMDG
Not dangerous goods
IATA
Not dangerous goods

15. Regulatory Information

SARA 302 Components
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313 Components
Alumina oxide – Cas No. 1344-28-1
SARA 311/312 Hazards
Acute Health Hazard

Cas No.	Compound	Hazard
1305-78-8	Calcium oxide	Acute
7631-86-9	Silica	Chronic, Acute
1345-25-1	Iron Oxide	Fire
1344-28-1	Alumina Oxide	Chronic, Acute
13463-67-7	Titanium Dioxide	Chronic

Massachusetts Right to Know Components

Cas No.	Compound
1305-78-8	Calcium oxide
7631-86-9	Silica
1345-25-1	Iron Oxide
1344-28-1	Alumina Oxide
13463-67-7	Titanium Dioxide

Pennsylvania Right to Know Components

Cas No.	Compound
1314-23-4	Zirconium Dioxide
1344-09-8	Sodium Polysilicate
1305-78-8	Calcium oxide
7631-86-9	Silica
1345-25-1	Iron Oxide
1344-28-1	Alumina Oxide
13463-67-7	Titanium Dioxide

New Jersey Right to Know Components

Cas No.	Compound
1314-23-4	Zirconium Dioxide
1344-09-8	Sodium Polysilicate
1305-78-8	Calcium oxide
7631-86-9	Silica
1345-25-1	Iron Oxide
1344-28-1	Alumina Oxide
13463-67-7	Titanium Dioxide

California Prop. 65 Components	**Cas No.**
Titanium Dioxide	13463-67-7

16. Other Information

Acute Tox. 4:	Acute toxicity, Hazard Category 4
Skin Irrit. 2:	Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2A:	Serious eye damage/eye irritation, Hazard Category 2A
H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation

The information above is believed to be accurate and represents the best information currently available to us. However, it does not represent any guarantee of the properties of the product. We make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we shall not be held liable for any damage resulting from handling or from contact with the above product. Users should make their own investigations to determine the suitability of the information for their particular purposes.