

# DSI Zoer Reinforced Polymer ZOE Cement

Material safety data sheet (MSDS)  
Version 1.0 / EN

26/12/2022

## SECTION 1: PRODUCT AND COMPANY INFORMATION

### 1.1. Product identifier

Product Name	DSI Zoer Reinforced
Intended use	Temporary Dental Cement
Structure	Powder/Liquid

### 1.2. Details of the supplier of the safety data sheet:

Company Name	DSI Ltd.
Company Address	59 haAvoda str., Ashdod 7706300 Israel
Contact Name	Shlomi Krasner
Phone / Fax	+972.893.172.35
E-mail	info@dsisrael.com

Emergency telephone number:

Phone / Fax +972.893.172.35

## SECTION 2: COMPOSITION / INFORMATION ON INGREDIENTS

Chemical characterization:

<b>COMPONENTS Powder</b>	<b>C.A.S.</b>	<b>% by Wt</b>
Zinc oxide	1314-13-2	50-70 %
Fillers*	—	15-20 % (trade secret*)

\* SDS indicates the ingredient name and/or exact percentage is being withheld as a trade secret.

## SECTION 3: HAZARDS IDENTIFICATION

H315: Skin irritation. 2. May cause skin irritation.

H317: Sensitization. 1. May cause an allergic skin reaction.

H319: Eye irritation. 2. May cause eye irritation.

H334: Respiratory sensitization. 1. May cause allergy or asthma symptoms.

H335: STOT SE. 3. May cause respiratory irritation.

H412: Harmful to aquatic life with long lasting effects.

P273 Avoid release to the environment

P391 Collect spillage.

P501 Dispose of contents/container in accordance with local regulations.

P261: Avoid breathing dust/vapor/fume/gas/mist/spray.

P273: Avoid release to the environment.

P305+P351+P338: If in eyes, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.

P342+P311: If experiencing respiratory symptoms, call a poison center or doctor/physician.

P337+P313: If eye irritation persists, get medical advice/attention.

## SECTION 4: FIRST AID MEASURES

<b>Eye Contact</b>	If this product comes in contact with the eyes: Wash out immediately with fresh running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Seek medical attention without delay; if pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
<b>Skin Contact</b>	If skin or hair contact occurs: Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.
<b>Inhalation</b>	If dust is inhaled, remove from contaminated area. Encourage patient to blow nose to ensure clear breathing passages. Ask patient to rinse mouth with water but to not drink water. Seek immediate medical attention.
<b>Ingestion</b>	Immediately give a glass of water. First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

## SECTION 5: MEASURES AND MEANS OF MAINTENANCE OF FIRE SAFETY

- Water spray or fog
- Foam
- Dry chemical powder

Fire Incompatibility Avoid strong acids, acid chlorides, acid anhydrides

Fire Fighting

- Wear breathing apparatus plus protective gloves in the event of a fire.
- Prevent, by any means available, spillage from entering drains or water courses. Use fire fighting procedures suitable for surrounding area.

Fire/Explosion Hazard

- Non combustible.
- Not considered a significant fire risk, however containers may burn.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

<b>Minor Spills</b>	Remove all ignition sources. Clean up all spills immediately. Avoid contact with skin and eyes. Control personal contact with the substance, by using protective equipment.
<b>Major Spills</b>	CAUTION: Advise personnel in area. Alert Emergency Services and tell them location and nature of hazard. Control personal contact by wearing protective clothing.

## SECTION 7: HANDLING AND STORAGE

<b>Safe handling</b>	Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps.
<b>Other information</b>	Store in original containers. Keep containers securely sealed. Store in a cool, dry area protected from environmental extremes. Store away from incompatible materials and foodstuff containers.
<b>Suitable container</b>	Polyethylene or polypropylene container. Check all containers are clearly labeled and free from leaks.
<b>Storage incompatibility</b>	Avoid strong acids, acid chlorides, acid anhydrides. Avoid reaction with oxidizing agents

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

Workplace exposure limits: No data available.

<b>Eye and face protection</b>	No special equipment for minor exposure i.e. when handling small quantities. OTHERWISE: Safety glasses with side shields. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task.
<b>Skin protection</b>	See Hand protection below
<b>Hands/feet protection</b>	Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. Rubber
<b>Body protection</b>	See Other protection below

## SECTION 9: PHYSICAL/CHEMICAL CHARACTERISTICS

Information on basic physical and chemical properties

<b>Appearance:</b>	Paste White, odorless, powder; does not mix with water.
<b>Odor</b>	Not Available
<b>Odor threshold</b>	Not Available
<b>pH (as supplied)</b>	Not Available
<b>Melting point / freezing point (°C)</b>	Not Available
<b>Initial boiling point and boiling range (°C)</b>	Not Available
<b>Flash point (°C)</b>	Not Available
<b>Evaporation rate</b>	Not Available
<b>Flammability</b>	Not Available
<b>Upper Explosive Limit (%)</b>	Not Available
<b>Lower Explosive Limit (%)</b>	Not Available
<b>Vapor pressure (kPa)</b>	Not Available
<b>Solubility in water (g/L)</b>	Immiscible
<b>Vapor density (Air = 1)</b>	Not Available
<b>Relative density (Water = 1)</b>	Not Available
<b>Partition coefficient n-octanol / water</b>	Not Available
<b>Auto-ignition temperature (°C)</b>	Not Applicable
<b>Decomposition temperature</b>	Not Available
<b>Viscosity (cSt)</b>	Not applicable.
<b>Taste</b>	Not Available
<b>Explosive properties</b>	Not Available
<b>Oxidizing properties</b>	Not Available
<b>Surface Tension (dyn/cm or mN/m)</b>	Not applicable.
<b>Volatile Component (%vol)</b>	Not applicable.
<b>Gas group</b>	Not Available
<b>pH as a solution (1%)</b>	Not Available
<b>VOC g/L</b>	Not Available

## SECTION 10: STABILITY AND REACTIVITY

Reactivity  
Chemical stability

See section 7  
Unstable in the presence of incompatible materials.

	Product is considered stable.
	Hazardous polymerization will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

## SECTION 11: TOXICOLOGICAL INFORMATION

Toxicity values : No data available

Ingestion The material has not been classified by EC Directives or other classification systems as “harmful by ingestion”.

Skin contact Repeated exposure can cause contact dermatitis

Eye contact The material maybe irritating to the eye with prolonged contact causing inflammation.

## SECTION 12: ECOLOGICAL INFORMATION

No relevant data available.

## SECTION 13: DISPOSAL CONSIDERATION

Product / Packaging disposal

If container cannot be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorized landfill.

Where possible retain label warnings and SDS and observe all notices pertaining to the product. Recycle wherever possible.

Dispose of by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or Incineration in a licensed apparatus (after admixture with suitable combustible material)

Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

## SECTION 14: TRANSPORT INFORMATION

Land transport (ADG): NOT REGULATED

Air transport (ICAO-IATA / DGR): NOT REGULATED

Sea transport (IMDG-Code): NOT REGULATED

## SECTION 15: REGULATORY INFORMATION

Risk phrases:

36/38 Irritating to eyes and skin.

· Safety phrases:

Do not breathe gas/fumes/vapor/spray (appropriate wording to be specified by the manufacturer).

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Wear suitable gloves.

## SECTION 16: OTHER INFORMATION

Changes in content as per regulations – GHS classification

PC-TWA: Permissible Concentration-Time Weighted Average

PC-STEL: Permissible Concentration-Short Term Exposure Limit

IARC: International Agency for Research on Cancer

ACGIH: American Conference of Governmental Industrial Hygienists

STEL: Short Term Exposure Limit

TEEL: Temporary Emergency Exposure Limit

IDLH: Immediately Dangerous to Life or Health Concentrations

OSF: Odor Safety Factor

NOAEL: No Observed Adverse Effect Level

LOAEL: Lowest Observed Adverse Effect Level

TLV: Threshold Limit Value

OTV: Odor Threshold Value

Disclaimer:

Since the working conditions of the final user are unknown, the information presented in this safety data sheet is based on the current level of our knowledge, based on national and general standards.

The product should not be used for any other purpose than those indicated under heading without first receiving written instructions for use. The user must take all necessary measures to comply with the requirements and rules of the law. The information in this safety data sheet should be considered as a description of the safety requirements that apply to our product and does not guarantee its properties.

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E-mail	info@dsisrael.com

Emergency telephone number:	
Phone / Fax	+972.893.172.35

## SECTION 2: COMPOSITION /INFORMATION ON INGREDIENTS

Chemical characterization:

<b>COMPONENTS Powder</b>	<b>C.A.S.</b>	<b>% by Wt</b>
Eugenol	97-53-0	>90 % (trade secret*)

\* SDS indicates the ingredient name and/or exact percentage is being withheld as a trade secret.

## SECTION 3: HAZARDS IDENTIFICATION

Hazard statements:

- H315: Skin irritation. 2. May cause skin irritation.  
H317: Sensitization. 1. May cause an allergic skin reaction.  
H319: Eye irritation. 2. May cause eye irritation.  
H334: Respiratory sensitization. 1. May cause allergy or asthma symptoms.  
H335: STOT SE. 3. May cause respiratory irritation.  
H412: Harmful to aquatic life with long lasting effects

Precautionary statements:

- P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P243: Take precautionary measures against static discharge.  
P240: Ground/Bond container and receiving equipment.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P303+361+353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/



shower.

P304+340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P307+311: IF exposed or concerned: Call a POISON CENTER/doctor.

P410+403: Protect from sunlight. Store in a well-ventilated place.

PBT: This product is not identified as a PBT/vPvB substance.

## SECTION 4: FIRST AID MEASURES

<b>Eye Contact</b>	Bathe the eye with running water for 15 minutes. Consult a doctor.
<b>Skin Contact</b>	Remove all contaminated clothes and footwear immediately unless stuck to skin. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Consult a doctor.
<b>Inhalation</b>	Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor.
<b>Ingestion</b>	Do not induce vomiting. Wash out mouth with water. Transfer to hospital as soon as possible.
<b>Delayed / immediate effects:</b>	Immediate effects can be expected after short-term exposure.

## SECTION 5: MEASURES AND MEANS OF MAINTENANCE OF FIRE SAFETY

Immediate / special treatment: Show this safety data sheet to the doctor in attendance.

Extinguishing media: Water spray. Alcohol resistant foam. Dry chemical powder. Carbon dioxide.

Exposure hazards: In combustion emits toxic fumes. Vapor may travel considerable distance to source of ignition and flash back.

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions: Refer to section 8 of SDS for personal protection details. Eliminate all sources of ignition.

Mark out the contaminated area with signs and prevent access to unauthorized personnel. Evacuate the area immediately. Turn leaking containers leak-side up to prevent the escape of liquid.

Environmental precautions: Do not discharge into drains or rivers.

Clean-up procedures: Absorb into dry earth or sand. Transfer to a closable, labeled salvage container for disposal by an appropriate method. Do not use equipment in clean-up procedure which may produce sparks.

## SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Handling requirements: Ensure there is exhaust ventilation of the area. Use non-sparking tools. Avoid direct contact with the substance.

Storage conditions: Store in a cool, well ventilated area. Keep away from sources of ignition. Keep container tightly closed. Keep away from direct sunlight. Prevent the buildup of electrostatic charge in the immediate area. Ensure lighting and electrical equipment is not a source of ignition.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures: Ensure there is exhaust ventilation of the area. Ensure lighting and electrical equipments are not a source of ignition.

Respiratory protection: Gas/ vapor cartridge combination

Hand protection: Break through time of the glove material > 1 hour.

Eye protection: Safety glasses with side-shields. Ensure eye bath is to hand.

Skin protection: Protective clothing, antistatic.

Environmental: Prevent from entering in public sewers or the immediate environment.

## SECTION 9: PHYSICAL/CHEMICAL CHARACTERISTICS

Information on basic physical and chemical properties

<b>Appearance:</b>	pale yellow clear liquid
<b>Solubility in water</b>	No data available
<b>pH</b>	Not applicable
<b>Boiling point</b>	Not applicable
<b>Flash point</b>	Not applicable
<b>Explosive properties</b>	Not applicable
<b>Oxidizing properties</b>	Not determined
<b>Vapor pressure</b>	Not applicable
<b>Viscosity</b>	Not applicable
<b>Vapor density</b>	Not applicable
<b>Evaporation rate</b>	Not applicable

## SECTION 10: STABILITY AND REACTIVITY

Reactivity: Stable under recommended transport or storage conditions.

Chemical stability: May polymerize on exposure to light. Product should be inhibited to avoid polymerization and evolution of heat. Do not blanket or mix with oxygen free gas as this will render the inhibitor ineffective.

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.  
Polymerization may occur on exposure to conditions or materials listed below.  
Conditions to avoid: Direct sunlight. Heat. Sources of ignition. Flames.  
Materials to avoid: Oxidizing agents. Peroxides Amines. Bases. Acids. Reducing agents. Halogens.  
Hazardous decomposition products: In combustion emits toxic fumes of carbon dioxide / carbon monoxide.

## SECTION 11: TOXICOLOGICAL INFORMATION

Skin contact: There may be irritation and redness at the site of contact. An itchy rash may occur at the site of contact.  
Eye contact: There may be irritation and redness. The eyes may water profusely.  
Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. There may be vomiting and diarrhoea.  
Inhalation: There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.  
Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

## SECTION 12: ECOLOGICAL INFORMATION

Persistence and degradability: Biodegradable.  
Bioaccumulative potential: No data available.  
PBT identification: This product is not identified as a PBT/vPvB substance.

## SECTION 13: DISPOSAL CONSIDERATION

Other adverse effects: No data available.  
Disposal operations: Transfer to a suitable container and arrange for collection by specialized disposal company.  
Disposal of packaging: Dispose off in a regulated landfill site or other method for hazardous or toxic wastes.

## SECTION 14: TRANSPORT INFORMATION

Land transport (ADG): NOT REGULATED  
Air transport (ICAO-IATA / DGR): NOT REGULATED  
Sea transport (IMDG-Code): NOT REGULATED

## SECTION 15: REGULATORY INFORMATION

Risk phrases:

36/38 Irritating to eyes and skin.

· Safety phrases:

Do not breathe gas/fumes/vapor/spray (appropriate wording to be specified by the manufacturer).

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Wear suitable gloves.

## SECTION 16: OTHER INFORMATION

Changes in content as per regulations – GHS classification

H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H319: Eye irritation. 2. May cause eye irritation

H335: May cause respiratory irritation

Disclaimer:

Since the working conditions of the final user are unknown, the information presented in this safety data sheet is based on the current level of our knowledge, based on national and general standards.

The product should not be used for any other purpose than those indicated under heading without first receiving written instructions for use. The user must take all necessary measures to comply with the requirements and rules of the law. The information in this safety data sheet should be considered as a description of the safety requirements that apply to our product and does not guarantee its properties.