

SAFETY DATA SHEETS

This SDS packet was issued with item:

076362438

N/A

"Reviewed September 2010: No Changes"

Material Safety Data Sheet

May be used to comply with
OSHA's Hazard Communication Standard,
29 CFR 1910.1200. Standard must be
consulted for specific requirements.

U.S. Department of Labor

Occupational Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072



IDENTITY (As Used on Label and LHM)
HY-Bond Zinc Oxide Eugenol Cement Powder

Note: Blank spaces are not permitted. If any item is not applicable, or no
information is available, the space must be marked to indicate that.

Section I

Manufacturer's Name
Shofu Dental Corporation
Address (Number, Street, City, State, and ZIP Code)
1225 Stone Drive
San Marcos, CA 92078

Emergency Telephone Number
1-800-535-5053
Telephone Number for Information
760-736-3277
Date Prepared
OCTOBER 1, 2002
Signature of Preparer (optional)

Section II — Hazardous Ingredients/Identify Information

Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
---	----------	-----------	-----------------------------	--------------

None

Section III — Physical/Chemical Characteristics

Boiling Point	N/A	Specific Gravity (H ₂ O = 1)	N/A
Vapor Pressure (mm Hg)	N/A	Melting Point	N/A
Vapor Density (AIR = 1)	N/A	Evaporation Rate (Butyl Acetate = 1)	N/A
Solubility in Water	Insoluble		
Appearance and Odor	Fine, white, odorless powder		

Section IV — Fire and Explosion Hazard Data

Flash Point (Method Used)	N/A	Flammable Limits	N/A	LEL	UEL
Extinguishing Media	N/A				
Special Fire Fighting Procedures	N/A				
Unusual Fire and Explosion Hazards	N/A				

(Reproduce locally)

OSHA 174, Sept. 1985

Section V — Reactivity Data

Stability	Unstable	Conditions to Avoid
	Stable	X

Incompatibility (Materials to Avoid)
None known

Hazardous Decomposition or Byproducts
None known

Hazardous Polymerization	May Occur	Conditions to Avoid
	Will Not Occur	X

Section VI — Health Hazard Data

Route(s) of Entry:	Inhalation?	Possible	Skin?	N/A	Ingestion?	N/A
Health Hazards (Acute and Chronic)	None known					

Carcinogenicity:	NTP1	N/A	IARC Monographs?	N/A	OSHA Regulated?	N/A
------------------	------	-----	------------------	-----	-----------------	-----

Signs and Symptoms of Exposure
Contact with eyes may cause irritation due to foreign body reaction

Medical Conditions
Generally Aggravated by Exposure
None known

Emergency and First Aid Procedures
Ingestion: Drink plenty of water. See physician if necessary. Eyes: Wash w/flowing water.
Consult physician if necessary. Skin contact: Wash with mild soap & water.

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled

Wipe up and discard in a suitable container

Waste Disposal Method

Disposal must be carried out in accordance with federal, state, and local regulations.
Precautions to Be Taken in Handling and Storing

Store in a cool, dark area with lid tightly fastened

Other Precautions

Handling of product exclusively by dental specialists according to instructions for use.

Section VIII — Control Measures

Respiratory Protection (Specify Type)	N/A		
Ventilation	Local Exhaust	Special	
	Mechanical (General)	Other	
Protective Gloves	N/A	Eye Protection	May be required
Other Protective Clothing or Equipment	N/A		
Work/Hygienic Practices	Avoid eye contact		

Page 2

OSHA 174, Sept. 1985



SAFETY DATA SHEET

page 1/7

HY-Bond Temporary Cement
A ZINC OXIDE EUGNOL CEMENT POWDER
Printing date: August 26, 2019

SECTION 1. Identification of the substance or mixture and of the supplier

- 1.1 Product identifier
Trade Name:
HY-Bond Temporary Cement A ZINC OXIDE EUGNOL CEMENT "POWDER"
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses: Dental material
Uses advised against: No further data
- 1.3 Details of the supplier of the safety data sheet
Company/Undertaking identification
Manufacturer's Name: **SHOFU DENTAL CORPORATION**
Address: 1225 Stone Drive, San Marcos, CA 92078 USA
Toll Free: 1-800-827-4638
Phone: 760-736-3277
Fax: 760-736-3276
E-Mail: customer-service@shofu.com
Section in Charge: Quality Management & Regulatory Affairs
- 1.4 Emergency Telephone Number
For emergencies only. Call CHEMTREC: +1 703-741-5970 / 1-800-424-9300 (24 hours)

SECTION 2. Hazards identification

- 2.1 GHS Classification
HEALTH HAZARDS
- | | |
|---|---|
| ACUTE TOXICITY-INHALATION(DUST, MIST) | Category 4 |
| SKIN CORROSION/IRRITATION | Category 1 |
| EYE DAMAGE/IRRITATION | Category 1 |
| SENSITIZATION-RESPIRATORY | Category 1 |
| SENSITIZATION-SKIN | Category 1 |
| SPECIFIC TARGET ORGAN SYSTEMIC TOXICITY (SINGLE EXPOSURE) | Category 1 (systemic toxicity)
Category 2 (bone) |
| SPECIFIC TARGET ORGAN SYSTEMIC TOXICITY (REPEATED EXPOSURE) | Category 1(lung) |
- ENVIRONMENTAL HAZARD
- | | |
|---|------------|
| HAZARDOUS TO THE AQUATIC ENVIRONMENT-ACUTE HAZARD | Category 2 |
| HAZARDOUS TO THE AQUATIC ENVIRONMENT-CHRONIC HAZARD | Category 3 |
- The thing without mention is out of a classification object. Or cannot classify it.
- 2.2 Label elements
SYMBOL



GHS05



GHS07



GHS08

Version Number 11

Revision date: August 9, 2019



SAFETY DATA SHEET

page 2/7

HY-Bond Temporary Cement

A ZINC OXIDE EUGNOL CEMENT POWDER

Printing date: August 26, 2019

SIGNAL WORD Danger

HAZARD STATEMENTS

Causes severe skin burns and eye damage
May cause an allergic skin reaction
Harmful if inhaled
May cause allergy or asthma symptoms or breathing difficulties if inhaled
Causes damage to organs (systemic toxicity)
May cause damage to organs (bone)
Causes damage to organs through prolonged or repeated exposure (lung)
Toxic to aquatic life.
Harmful to aquatic life with long lasting effects

PRECAUTIONARY STATEMENTS

[Prevention]

Obtain special instruction before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe dust/fume/gas/mist/vapours/spray.
Wash hands thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.

[Response]

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF ON SKIN or hair: Take off immediately all contaminated clothing. Rinse skin with water or shower.
If skin irritation or rash occurs: Get medical advice/attention.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Get medical advice/attention if you feel unwell.
Collect spillage.

[Storage]

Store in a cool and dark area.

[Disposal]

Dispose of contents and container in accordance with regulation.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

SECTION 3. Composition/information on ingredients

3.1 Chemical characterization: Mixtures

3.2 Description: Mixture of substances listed below with nonhazardous additions.

Version Number 11

Revision date: August 9, 2019



SAFETY DATA SHEET

page 3/7

HY-Bond Temporary Cement

A ZINC OXIDE EUGNOL CEMENT POWDER

Printing date: August 26, 2019

3.3 Dangerous components:

Zinc Oxide [Cas No. 1314-13-2]	60-70 %
Rosin [Cas No. 8050-09-7]	20-30 %
Others	

3.4 Additional information: For the wording of the listed risk phrases refer to section 2

SECTION 4. First-aid measures

4.1 Description of first aid measures

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present. and easy to do. If eye irritation persists, get medical advice/attention.

Skin contact: Wash immediately with soap and plenty of water. If on skin, skin irritation, get medical advice/attention.

Ingestion: Rinse mouth and seek medical advice if necessary.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptom concerning breath goes out, call a POISON CENTER or doctor.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5. Fire-fighting measures

5.1 Extinguishing Media:

This product is not flammable.

5.2 Special hazards arising from the substance or mixture:

No further relevant information available.

5.3 Advice for firefighters:

No special measures required.

SECTION 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid contact with eyes and skin. Do not breathe dust.

6.2 Environmental Precautions:

Send to approved treatment/disposal company or dispose according to local, state and federal regulations.

6.3 Methods and material for containment and cleaning Up:

Wipe up and discard in a suitable container.

6.4 Reference to other section:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7. Handling and storage

7.1 Precautions for safe handling:

Handle in a well ventilated area. Avoid prolonged inhalation.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a cool and dry conditions with lid tightly closed.

Version Number 11

Revision date: August 9, 2019



SAFETY DATA SHEET

page 4/7

HY-Bond Temporary Cement

A ZINC OXIDE EUGNOL CEMENT POWDER

Printing date: August 26, 2019

- 7.3 Specific end use(s):
No further relevant information available.

SECTION 8. Exposure controls/personal protection

- 8.1 Control parameters:
- | | | | |
|-----------------|--------------|----------|--------------------------|
| Exposure limits | Zinc Oxide; | | |
| | [ACGIH 2013] | TLV-TWA | 2 mg/m ³ (R) |
| | | TLV-STEL | 10 mg/m ³ (R) |
- 8.2 Exposure controls:
- Respiratory Protection:
- Dust mask
- Skin Protection:
- Hand Protection
- The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
- Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/the chemical mixture.
- Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
- Material of gloves
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
 - Penetration time of glove material
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
 - For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:
Butyl rubber, BR
Nitrile rubber, NBR
- Eye Protection: Safety goggles

SECTION 9. Physical and chemical properties

- 9.1 Information on basic physical and chemical properties
- | | |
|--|---------------------------------|
| Appearance/Odor/Colour: | Yellowish white odorless powder |
| Odour threshold | Not determined. |
| pH | Not determined. |
| Melting point/freezing point | Not determined. |
| Boiling Point: | Not determined. |
| Flash point: | Not determined. |
| Evaporation rate | Not determined. |
| Flammability (solid, gas) | Not applicable. |
| Upper/lower flammability or explosive limits | Not determined. |
| Vapour pressure | Not determined. |

Version Number 11

Revision date: August 9, 2019



SAFETY DATA SHEET

page 5/7

HY-Bond Temporary Cement

A ZINC OXIDE EUGNOL CEMENT POWDER

Printing date: August 26, 2019

Vapour density	Not determined.
Relative Density:	≈ 2.3 (water=1)
Solubility: water solubility	Insoluble.
Partition coefficient: n-octanol/water	Not determined.
Auto-ignition temperature	Not determined.
Decomposition temperature	Not determined.
Viscosity	Not determined.
Explosive properties	Not applicable.
Oxidising properties	Not applicable.

9.2 Other information

No further relevant information available.

SECTION 10. Stability and reactivity

10.1 Reactivity:

No further relevant information available.

10.2 Chemical stability:

Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions:

No dangerous reactions known.

10.4 Condition to Avoid:

Avoid direct sunlight and high temperature.

10.5 Incompatible materials:

No further relevant information available.

10.6 Hazardous Decomposition Products:

None under normal conditions of storage and use.

SECTION 11. Toxicological information

11.1 Information on toxicological effects:

Acute toxicity: Acute Tox. 4; H332 Harmful if inhaled.

Zinc oxide;

Oral	rat	LD50	> 5000 mg/kg
------	-----	------	--------------

Dermal	rabbit	LD50	> 5000 mg/kg
--------	--------	------	--------------

Inhalation (dust)	rat	LC50	> 5.7 mg/L
-------------------	-----	------	------------

Rosin; Oral	rat	LD50	7800 mg/kg
-------------	-----	------	------------

Dermal	rabbit	LD50	> 2500 mg/kg
--------	--------	------	--------------

Skin corrosion/irritation: Skin Irrit. 1; H314 Causes severe skin burns and eye damage.

Eye damage/irritation: Eye Dam.1 ; H314 Causes severe skin burns and eye damage.

Sensitization to the respiratory tract:

Resp. Sens.1; H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin sensitization: Skin Sens.1 ; H317 May cause an allergic skin reaction.

Germ cell mutagenicity/Genotoxicity:

Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

Effects on or via lactation: Lack of data.

Version Number 11

Revision date: August 9, 2019



SAFETY DATA SHEET

page 6/7
HY-Bond Temporary Cement
A ZINC OXIDE EUGNOL CEMENT POWDER
Printing date: August 26, 2019

Specific target organ toxicity (single exposure):

STOT SE 1; H370 Causes damage to organs (systemic toxicity).

STOT SE 2; H371 May cause damage to organs (bone).

Specific target organ toxicity (repeated exposure):

STOT RE 1; H372 Causes damage to organs through prolonged or repeated exposure (lung).

Aspiration hazard:

Based on available data, the classification criteria are not met.

SECTION 12. Ecological information

12.1 Toxicity:

No further relevant information available.

12.2 Persistence and degradability:

No further relevant information available.

12.3 Bioaccumulative potential:

No further relevant information available.

12.4 Mobility in soil:

No further relevant information available.

12.5 Results of PBT and vPvB assessment:

Not applicable.

12.6 Other adverse effects:

No further relevant information available.

SECTION 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of contents/container to in accordance with local/regional/national/international regulations.

SECTION 14. Transport information

14.1 UN number:

3077

14.2 UN proper shipping name:

Environmentally hazardous substance, solid, n.o.s.

14.3 Transport hazard class(es):

9

14.4 Packing group:

III

14.5 Environmental hazards:

Yes

14.6 Special precautions for user:

Not applicable.

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not applicable.

SECTION 15. Regulatory information

Follow all regulations in your country.

SECTION 16. Other information

This product is intended for use by dental professionals. (instrument/material)

Relevant phrases:

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

Version Number 11
Revision date: August 9, 2017



SAFETY DATA SHEET

page 7/7

HY-Bond Temporary Cement

A ZINC OXIDE EUGNOL CEMENT POWDER

Printing date: August 26, 2019

- H332 Harmful if inhaled.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H370 Causes damage to organs (systemic toxicity).
- H371 May cause damage to organs (bone).
- H372 Causes damage to organs through prolonged or repeated exposure (lung).
- H401 Toxic to aquatic life.
- H412 Harmful to aquatic life with long lasting effects.

Abbreviations and acronyms:

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Version Number 11

Revision date: August 9, 2019